Article – Theme section

Framing the Covid-19 pandemic
A case study of the role of Norwegian public service broadcasting in times of crisis

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Abstract

The COVID-19 pandemic has caused both a widespread public health crisis and a global economic crisis, disrupting every aspect of our lives, health, education, jobs, and social life. To provide the public with trustworthy and continuously updated information and stories during uncertain times, newsrooms have made pandemic coverage a priority. Conducting a content analysis of Norwegian news and debate programs on radio and television throughout 2020, we found that the frames most dominant in news broadcasts were the least used frames in debate programs, and vice versa. Overall, the five most common frames were societal consequences, economic consequences, medical risk, government measures, social behaviour, and risk. This suggests that the COVID-19 pandemic was contextualized as an economic and social crisis as well as a health crisis. However, the lack of politicization, conflict and responsibility frames, suggests media coverage missed a critical perspective.

Keywords
framing, television news, debate programs, COVID-19, content analysis

Introduction

In the initial phase, the Covid-19 pandemic gave rise to an excessive upsurge in the use of public service media (Murdock, 2021; Newman et al., 2021). Worldwide, television news programmes were the second most reliable news source behind governments, illustrating how essential these services were for people (Túñez-López et al., 2020).

As primary sources of information, as well as arenas for debate and social integration, it is vital to understand how public service broadcasting institutions covered the Covid-19 crisis and to discuss their fulfilment of certain societal functions. Framing theory serves as an appropriate approach to analysing media content and how the media portrayed the pandemic by selecting and constructing certain aspects (Entman, 1993; De Vreese, 2005; Baden, 2019). With a few exceptions (Villena-Alarcón & Caballero-Galeote, 2020; Apuke & Omar, 2021; Sun, 2021; Carelli & Sfardini, 2022), research on the effect of Covid-19 on broadcasting media is scant, as most framing studies focus on print and online news. This absence of broadcasting analyses is somewhat surprising, as public service media are the main channels used by the population to gain information and take part in public discourse (Bridgman et al., 2020). Studying public service broadcasting also allows us to include debate programmes and not merely news programmes. Research on debate programmes has been rare during the pandemic, except for that by Fedtke, Ibahrine, Zaid, and Shin (2021), who found that German political talk shows contained fake news and misinformation.

The current study helps to fill the gap in public service broadcasting analyses related to Covid-19 with a framing analysis of the coverage of the Coronavirus in Norwegian public service news and debate programmes during 2020. This allowed us to explore differences and similarities between the use of frames within news and debate programmes and informs previous studies of the role legacy news media play during a pandemic such as Covid-19. The study also contributes to the theory of framing by exploring a variety of 14 frames and contextualising framing studies to improve our understanding of the societal role of public service broadcasting. In addition, to assess the quality of a country's information infrastructure and its robustness against fake news and the disinfodemic, our study offers practitioners insights into the production process of news, information, and arguments about the pandemic, the spread of the virus, and the economic and social impact of Covid-19.

Theoretical framework and literature review

Ample research on the role of media during the Covid-19 pandemic has demonstrated the constructive influence of public service broadcasting on shaping public risk perception and helping people to take appropriate self-protective actions (Mach et al., 2021; Murdock, 2021; Cushion et al., 2022; Viehmann et al., 2022). Besides providing vital, objective, and ethical information about events and issues that matter to society, public service

broadcasting ensures that information is debated and examined from all points of view. The controlling watchdog function of news media is particularly important during a crisis, having the power to hold the authorities accountable and expose conflicts and disagreements (Horowitz & Leino, 2020). By mediating identity and a sense of belonging (Carelli & Sfardini, 2022), public service broadcasting may also function as an arena for social integration, bonding, and solidarity (Newman et al., 2021).

Three functions of public service broadcasting

The most central function of news media is to provide information to the public about events and topics relevant to them through news programmes and transmissions of press conferences (Gurevitch & Blumler, 1990; Túñez-López et al., 2020). During a societal crisis such as the Covid-19 pandemic, we are faced with risk and uncertainty. We need to understand what the disease is all about, how to interpret the public response to the pandemic, and ultimately how to protect ourselves and our communities. This risk is exacerbated by the overabundance of information available and the rapid spread of inaccurate, premature, and misleading information online referred to as an infodemic. Public service broadcasting contributes directly to citizens' potential for self-protection and safety by providing trustworthy information and data about the virus as well as improving the efficiency of the authorities' pandemic response efforts (Viehmann et al., 2022). Covid-19 mitigating health perception and behaviours vary according to people's trust in different media sources (Bridgman et al., 2020). Thus, during the Covid-19 pandemic, legacy news media served important educational purposes by providing vital information (Bridgman et al., 2020; Malecki et al., 2021) as well as persuasion (De Coninck et al., 2020).

Another central function of public service broadcasting is to act as an arena for public discourse and debate (Newman et al., 2021), in which the opinions of stakeholders, citizens, and politicians are exchanged (Horowitz & Leino, 2020). This also includes commentary, interpretation, and the channelling of public opinion (Viehmann et al., 2022). In the history of public service broadcasting, this function has been a vital part of so-called debate programmes (Örnebring, 2003) and political talk shows (Fedtke et al., 2021). The controlling watchdog function of public service broadcasting is critical during a crisis such as the Covid-19 pandemic because it poses political questions and looks at injustices and questions of responsibility and accountability (Fonn & Hyde-Clarke, 2021). News media are likely to play a definitive role in times of confusion and uncertainty (Fedtke et al., 2021). In the case of the 2003 SARS crisis, for example, the view of holding the Chinese system responsible was pushed to the background as the crisis was framed as an economic one (Buus & Olsson, 2006).

The third function of public service broadcasting is sometimes labelled as "mediators of identities and culture" and deals with societal integration (Viehmann et al., 2022) and how media stimulate public connection among citizens (Newman et al., 2021). In times of crisis, this may include a bonding function (bringing people closer together and build-

ing solidarity) and instructive functions (cultivating knowledge by teaching, helping, and guiding people to take self-protective actions for themselves and their community).

Together, these three public service functions have the potential to form a safety net for the public during a crisis, by bringing trustworthy information, explaining, and debating aspects of the pandemic beyond a health crisis and contributing to social integration, solidarity, and collective behaviour changes. An exploration of these functions motivated the use of framing theory, which "contributes to understanding the specific roles and functions of journalistic news for democratic public debate and societal sense-making efforts" (Baden, 2019, p. 231). The values of journalism and the role of public service broadcasting tie into news framing (Wasike, 2013), as media has the potential to profoundly shape and alter public opinion, knowledge, and attitudes by making some aspects of an issue or event more salient than others (Hart et al., 2020; Ogobodo et al., 2020; Poirier et al., 2020).

Literature review

Framing theory is a fragmented, emerging theoretical field. Scholars agree there is no unified or optimal approach for estimating the number and types of news frames in a framing study. Most framing research on the Covid-19 pandemic includes five theoretical predefined frames: *conflict, human interest, economic consequences, morality, and responsibility* (Semetko & Valkenburg, 2000). The *conflict* frame emphasises disagreement between individuals, groups, or institutions and has, in some studies of Coronavirus coverage, been among the most used (Ogbodo et al., 2020; Cho & Wang, 2021), but has also not been present at all (Ebrahim, 2022). The *human interest* frame personalises, dramatises, and emotionalises the news (Semetko & Valkenburg, 2000) and prevailed in the research of Ogbodo et al. (2020), Kleut and Šinković (2020), and Tejedor, Cervi, Tusa, Portales, and Zabotina (2020). Most studies include the generic frames of *attribution of responsibility* and *morality*; however, with a few exceptions (Kleut & Šinković, 2020; Cho & Wang, 2021), they do not play a profound role. The *economic* frame is also included in most studies on Covid-19 pandemic coverage, yet only found prevailing in Basch et al. (2020) and Hubner (2021). Researchers modify the five generic frames by adding emerging frames or replacing irrelevant frames. We argue that equally important as the *economic consequences* frame, there is a *societal* frame covering areas such as business, working life, schools, and hospitals. This frame was dominant in several studies (Thomas et al., 2020; Ophir et al., 2021; Bhatti et al., 2022). We also added a *cultural* frame, as the lockdown measures led to an abrupt withdrawal of cultural and sporting events (Ursin et al., 2020), and did not include the *morality* frame, as this issue was not frequently used in Covid-19 crisis news.

In addition to generic frames, researchers often rely on an inductive approach and the use of issue-specific frames that take into consideration the national context or the nature of the event (Lecheler & De Vreese, 2019). Following Kilgo et al. (2019), we use a

speculation frame to cover panic-triggering news, conspiracy theories, and the spread of false information, although this frame is found to be among the least used (Nwakpu et al., 2020; Hubner, 2021). Issue-specific frames in our context also include a range of pandemic-related frames. Among the dominate frames were *health consequences* (Shih et al., 2008; Bhatti et al., 2022; Ebrahim, 2022), *health crisis* (Poirier et al., 2020), *general risk* (Kilgo et al., 2019), *scale of the pandemic* (Siddiqua et al., 2020), *death and death rates* (Basch et al., 2020), *containment* (Nwakpu et al., 2020), and *symptoms* (Ophir et al., 2021). Most studies included several detailed frames addressing perspectives of the pandemic, and so we included three medical frames: a factual *medical risk focus* frame about the epidemiology, a *social behaviour and risk* frame (recommendations, guidelines, and preventive behavioural practices), and an *illness and mortality* frame about death rates and registers of those infected as well as hospitalisation.

Lastly, we have added a group of four frames that cover various responses to the pandemic, as these were found prevalent in some studies (Basch et al., 2020; Poirirer et al., 2020; Nwakpu et al., 2020). In addition to the two frames of *government measures* and *legislation*, the frame *collective effort* covers themes of community help and support. Our last frame is *the health system*, which corresponds to *preparedness and public health response*, one of the most dominant frames in Basch et al. (2020).

Relying on both deductive and inductive approaches, we have identified 14 frames within four higher level thematic frames (Table 1). This allowed a two-step framing approach of the 14 specific lower level frames across three consequences frames, three pandemic frames, four response frames, and another four generic frames.

Generic frames	Pandemic frames	Consequences	Response frames
Conflict	Social behaviour and risk	Economic	Governmental measures
Human interest	Illness and mortality	Cultural	Legislation
Responsibility	Medical risk focus	Societal	Health system
Speculation			Collective efforts

Table 1: Typology of frames, higher and lower level

There are few recent studies addressing broadcasting media and Covid-19 coverage, and very few analyse the use of frames in news programmes. One notable exception is Vasterman and Ruigrok (2013), who found that television news programmes had significantly higher scores on alarming statements as compared with newspapers in the coverage of the 2009 influenza A (H1N1) pandemic in the Netherlands. Sun (2021) found that the Australian public service media mostly framed China's efforts in political and ideological terms, rather than as an issue of public health. Analysing Spanish Public TV, Villena-Alarcón and Caballero-Galeote (2020) found that stages in the news coverage went from con-

cern to depression to acceptance, focusing on responsibility, problems, and a change of course. Apuke and Omar (2021) examined television news coverage of Covid-19 in Nigeria and found that government media outlets cited more government officials compared with the private media, which relied more on the Nigeria Centre for Disease Control for sources. In addition, the private broadcaster had a more negative tone of voice in its stories. None of these broadcasting studies relied on framing analysis. A diary study of news audiences in the UK during the health crisis found that while much of the public turned to television news for trusted information, the television news bulletins gave audiences limited opportunities to understand the government's handling of the crisis internationally (Cushion et al., 2022). On the other hand, Túñez-López et al. (2020), studying a range of public service institutions in Europe, found that they had been an essential service to the population, promoting health education campaigns and informing preventive behaviours, thereby also reinforcing public service broadcasting as a fundamental valuable service to citizens. There is also a gap in the literature regarding analysis across different media genres (news coverage and debate programmes). As these types of programmes differ substantially in terms of structure, the use of sources, perspectives, and production processes, we expect the use of frames to differ correspondingly (Riffe et al., 2019).

This study took place in Norway, which is a digitally advanced market with high internet penetration, a plethora of local newspapers, and two public service broadcasters. Norway managed to avoid the worst of the pandemic without the most stringent restrictions on public life (Christensen & Lægreid, 2020), which we assume has had an impact on media coverage. There is an increasing number of framing studies from all over the world (in our literature review, we included studies from the USA, Australia, China, Canada, Nigeria, the UK, Serbia, the Netherlands, Spain, Germany, and Italy), but to our knowledge, there is no framing analysis of how Scandinavian news media covered the Covid-19 pandemic.

Methods

Research questions
In line with previous framing studies, our theoretical interest is to explore the use of frames in broadcast news and debate programmes to understand the functions of public service broadcasting during the Covid-19 pandemic. As our literature review shows, the use of a range of frames varies significantly. Therefore, two explorative research questions were deemed appropriate:
- How was the Covid-19 pandemic framed in Norwegian broadcast news and debate programmes throughout 2020?
- How did the frames differ in news and debate programmes?

To answer these questions, a quantitative content analysis of both debate programmes on television and radio covering the Coronavirus outbreak was conducted. We selected debate programmes from the public service broadcaster, NRK, and traditional television news from NRK and the commercial public service broadcaster, TV2, since these are the only two broadcasters with news and debate programmes. In Scandinavia, "debate programmes" constitute a more unified genre than, for example, in the UK and US (Örnebring, 2003). A debate programme typically addresses important societal issues and plays an important agenda-setting role in the public sphere. The dominant form of communication in these programmes is debate, discussion, and conversation between two or more participants, led by a host. Within these two public service broadcasters, the debate programmes on radio do not differ much from the televised form, except for length. Three of the four debate programmes were simultaneous video transmissions of the aired programmes on the website of the broadcaster.

The content was assembled from January 2020 to December 2020, i.e., for the first year of the Covid-19 pandemic. The Coronavirus was first discovered in Norway in late February 2020, and a national lockdown was announced on 12 March. The first pandemic wave ended before June when infection numbers started to ease. After the summer holiday, the second wave occurred from late August until December 2020, while the arrival of vaccines helped bring infection levels down around the country.

Samples

In general, framing studies lack guiding principles for sample size and the selection of items (Kleut & Šinković, 2020). We applied a systematic random sampling technique (Neuendorf, 2017) in constructing a sample evenly distributed throughout the 12 months. To avoid the dominance of a few major stories, we altered the chosen dates. For instance, as the debate programmes on NRK Television broadcast every Tuesday and Thursday, we chose programmes broadcast every second week and alternated between week one and week two. In addition, we alternated between Tuesdays and Thursdays every second week. For our sampling period, there were 71 broadcasts of NRK's debate programmes, of which we analysed 42. Each programme included 1–3 units of news stories. We used a similar sampling technique for the other programmes. For the radio programme *Dagsnytt 18*, scheduled every day from Monday to Friday, we selected two programmes each month: every second Thursday in one month, followed by every second Wednesday in the next month and every second Friday thereafter. For the radio programme *Politisk Kvarter*, which aired daily, we chose the first five weekdays of every month. Each programme was divided into news items, and each news item was defined as one coding unit. Overall, we analysed 925 units, of which 327 contained information or discussion about the pandemic. There were 568 items from news programmes, of which 218 were Covid-19 related (38 pct.). There were 357 items from debate programmes, of which 109

were about issues related to the Covid-19 pandemic (31 pct.). Table 2 shows the sample and number of units that were coded for each of the six programmes.

Programme	Type of broadcasts	Genre	Number of units coded	Number of units about Covid-19
Dagsrevyen (NRK)	Television	News	258	102
TV2-Nyhetene (TV2)	Television	News	310	116
Debatten (NRK)	Television	Debate	78	34
Sytten tretti (TV2)	Television	Debate	53	15
Politisk kvarter (NRK)	Radio	Debate	65	14
Dagsnytt 18 (NRK)	Radio	Debate	161	46
Total			**925**	**327**

Table 2: Sample and units

Since the format of news broadcasts naturally differs from debate programmes, we aim to compare the results from these two formats. We wanted to understand how news bulletins and debate programmes potentially fill different gaps in the total current affairs coverage and how both play important but different roles in shaping the public's understanding of the crisis. The comparison between radio and television programmes was dropped, as three of the four radio programmes were "visualised radio", that is, transmitted as live video on the broadcasters' online service.

The sampling and analysis took place in April–May 2021, about a year after the outbreak of the Covid-19 pandemic. All the programmes were still available online, either on *NRK.no* or *TV2.no*, so the period between the initial outbreak and the subsequent course of the Covid-19 pandemic did not affect our data or analysis.

Coding procedures

A codesheet was created by the researchers to capture all the relevant information, including broadcast date, story heading, themes, sources, and definition of the frames. The values of each framing scale were coded as 0 (frame not present) or 1 (frame present). The concept of reliability in the coding of text is largely taken from quantitative research and defined as the consistency of a measure or the degree to which researchers' coding is consistent with each other – that is, to make sure all coders understand and use the codes in the same manner (Elliott, 2018). The news and debate programmes were coded by two coders, based on a predefined codebook, which was tested and refined over two initial rounds of test coding (see Appendix 1). First, two researchers independently coded a random selection of 20 items. The codebook was redefined based on comparison and discussion. A living document was made which included definitions and example quotes to promote the coders' understanding of the codes and to increase consistency across the team. Finally, reliability was also assessed during a training and calibration stage, in which

the coders reached a consensus about coding approaches for challenging applications (Cascio et al., 2019). The final intercoder reliability tests were performed, and the reliability score was satisfactory, although somewhat below the suggested intercoder agreement of between 85–90 pct. (Miles et al., 2014). All items were coded according to a main frame and a subframe. We appreciate the subjective nature of coding and question whether it is possible to judge qualitative inquiry by criteria such as reliability. We found detailed consensus-building team meetings (Creswell, 2013) successful for reaching consensus and maximising coding consistency.

Findings

Overall, our analysis of Coronavirus coverage in the six programmes shows that the three frames focusing on various consequences of Covid-19, together with the three pandemic frames, dominated the media coverage. Frames emphasising conflict, the health system, legislation, speculation, and responsibility (blame) are the least prevalent in the general media coverage.

Looking at the results of the analysis of broadcast news (Figure 1), the most frequent main frame in news broadcasts was *medical risk focus*, accounting for 20 pct. of the examined content as a main frame and 17 pct. as a subframe. This frame is defined as content
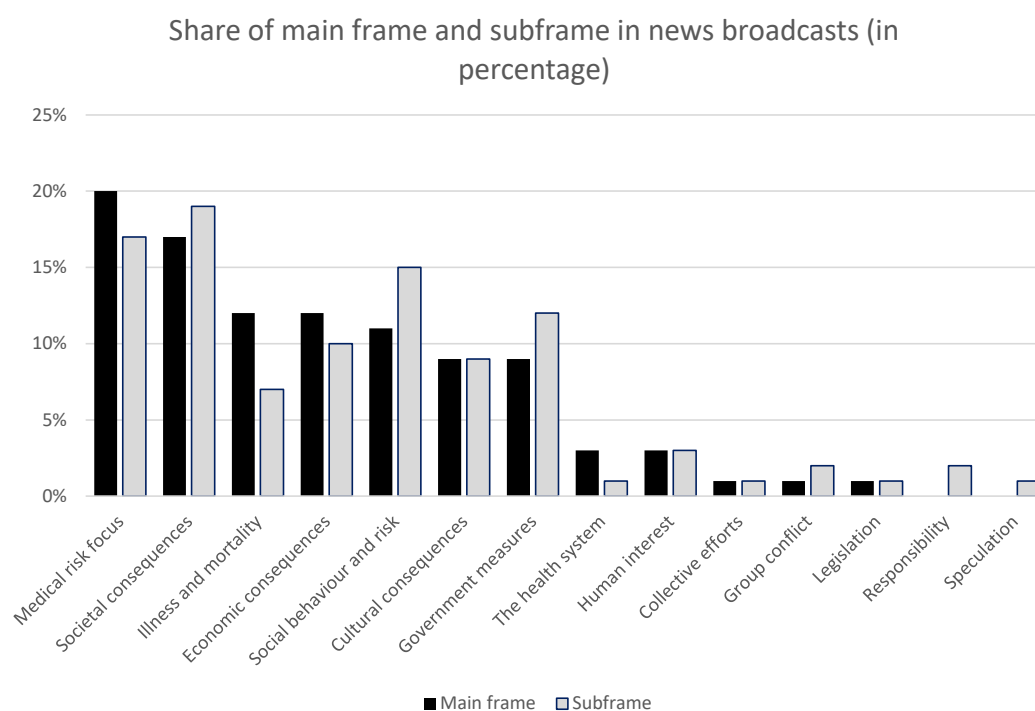
Share of main frame and subframe in news broadcasts (in percentage)

Figure 1: COVID-19 frames in news broadcasts (n=218 for main frame and 217 for subframe)

that presents factual frameworks on epidemiology and information concerning symptoms, treatment, and vaccination during a crisis that was accompanied by a wave of false and misleading information (Fedtke et al., 2021). The second most frequent main frame in the news broadcasts was *societal consequences,* appearing as a main frame in 17 pct. of the content and as a subframe in 19 pct. This frame covers consequences related to work, school, and general day-to-day activities, excluding those related to economy or culture, and should be understood in relation to the strict regulatory measures imposed in Norway.

Other perspectives frequenting as the main frame were *economic consequences,* accounting for 12 pct., *illness and mortality* for another 12 pct., *social behaviour and risk* for 11 pct. and *cultural consequences* for 9 pct. The *government measures* frame covers 9 pct., as the main frame has higher prevalence as a subframe (12 pct.), suggesting that recommendations or regulations from the government were rather presented in extension to other news events than the main event itself. The least used main frames were *collective effort, legislation, group conflict, responsibility,* and *speculation* frames, which all accounted for less than 2 pct. each, both as a main frame and a subframe.

Looking at the result of the analysis of debate programmes, there is more variety in the prevalence of main frames and subframes. *Economic consequence* is the most recurrent main frame (24 pct.), while it figures as a subframe in less than half as much of the content (11 pct.). That economic issues were largely debated compared to the lesser attention they were given in the news may suggest that economic consequences did not
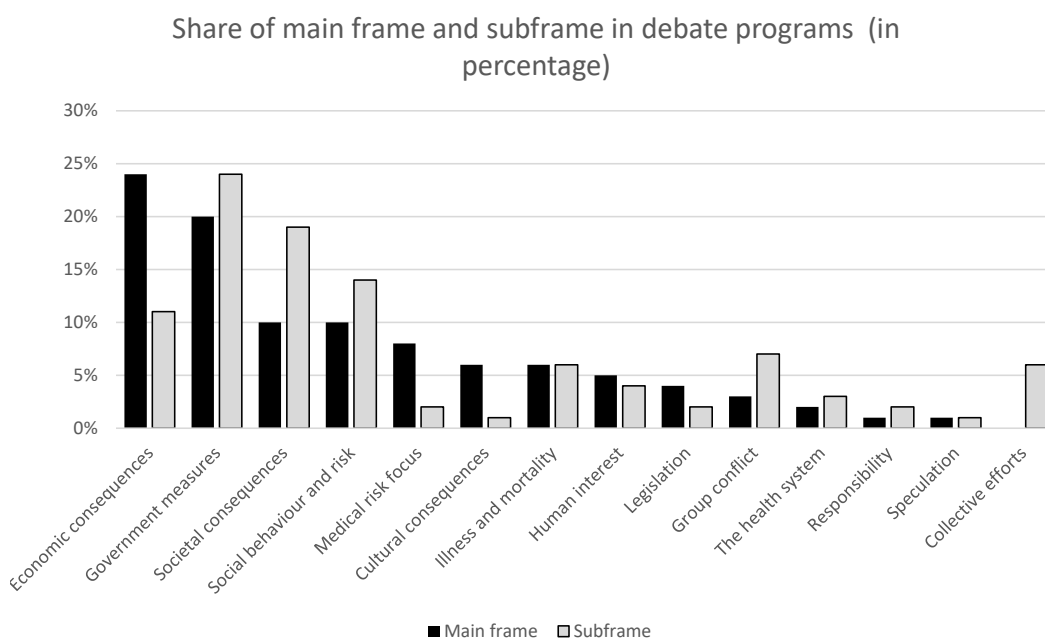
Share of main frame and subframe in debate programs (in percentage)

Figure 2: COVID-19 frames in debate programmes (n=108 for each frame)

to a large extent play out in real events at the time, while still representing a societal concern. The second most frequenting frame in debate was the *government measures* frame (20 pct. as the main frame), which mainly consisted of discussing the regulations opposed on society and the breaches of them.

As Figure 2 shows, the debate programmes also feature the pandemic from the perspectives of *social behaviour and risk* (10 pct. as a main frame) and *societal consequences* (10 pct. as a main frame), and to a significantly larger extent than other frames. About half of the frames are only marginally present in the content (1–6 pct.). The frame *societal consequences* appears as a subframe in 19 pct. of the content, making it the most frequently used subframe after *government measures* (24 pct.), suggesting that these were both frequently discussed in relation to other Covid-19 topics.

Comparing frames in news reports and debate programmes (Figure 3), the analysis shows that frames dominating news reports are less common in debate programmes, and vice versa. For instance, the *government measures* frame is the most recurrent in the debate programmes analysed (22 pct.). This frame is less present in the news broadcasts (10 pct.). The same patterns are seen for *economic consequences*, which accounts for 18 pct. in debate programmes and only 11 pct. in the news. It demonstrates the comple-
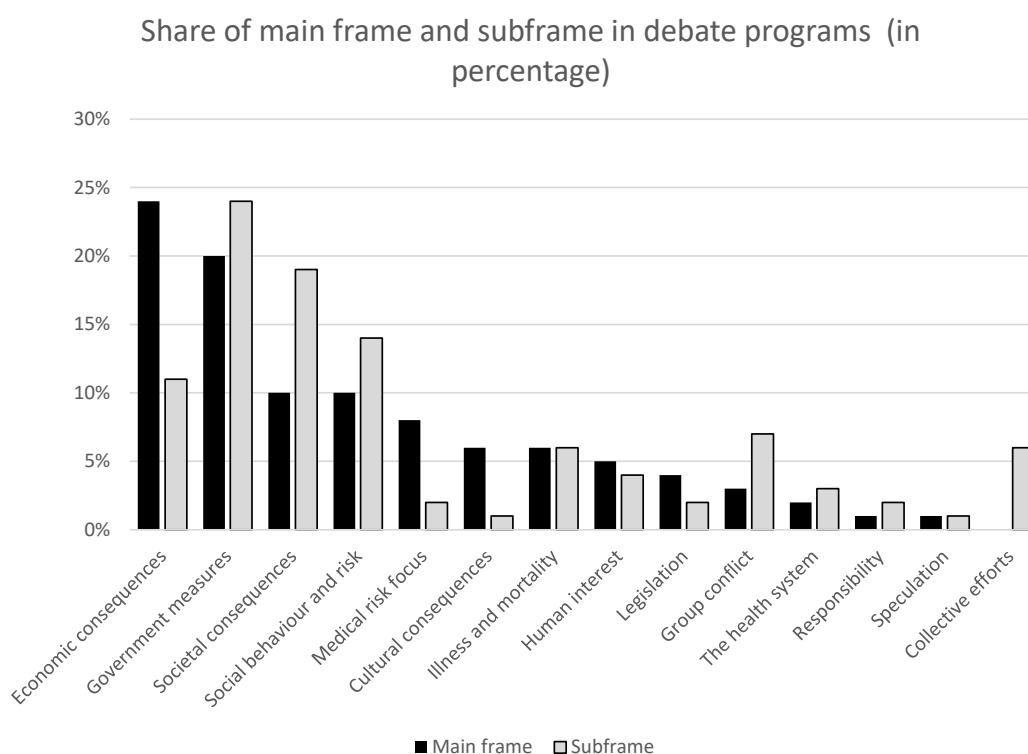

Figure 3: Prevalence of COVID-19 frames as main- and subframe in news broadcasts and debate programmes, n=651

mentarity of two journalistic genres; while the news mainly presents what has happened, debate can speculate and discuss matters of public concern.

On the other hand, the frames appearing more frequently in news broadcasts than in debate programmes are *medical risk focus, illness and mortality, and cultural consequences*. The difference is largest for the *medical risk* frame, which accounts for 18 pct. in news and only 5 pct. in debate programmes. *Illness and mortality*, a frame which to a large extent presents numbers of people infected or deceased, accounts for 10 pct. in news and 6 pct. in debate programmes. It complies with so-called body count journalism, in which context is generally neglected in favour of describing the magnitude of impact. This has been seen in earlier pandemic coverage, such as media's coverage of the swine flu in the 1970s (Rubin & Hendy, 1977). While news media have long been criticised for such historical and contextual neglect in coverage of major events, body count journalism is naturally more suited to breaking news than for debate and human reflection.

The *cultural consequences* frame accounts for 9 pct. in news and 3 pct. in debate programmes. The reason for this is most likely to do with the nature of news reports, which include updates on information concerning symptoms and treatment, as well as policies and recommendations by health and political authorities. During the pandemic, the Norwegian government, and representatives of the Norwegian Institute of Public Health (NIPH), and the Norwegian Directorate of Health and Social Affairs (NDH) held daily press conferences with regular updates on the crisis. Thus, it is somewhat unexpected that the *government measures* frame is less than half as prominent in news as in debate programmes. The *speculation* frame, along with the *responsibility* frame, is almost entirely absent in both news and debate programmes, with only 1 pct. in each. It could be expected to be more prevalent in debate programmes given that speculation and responsibility for outbreaks, regulation, or response would be pertinent matters to discuss in public. But the absence of this focus in both genres show that critical questions were not asked concerning "whose fault" and "what if" and suggesting a lack of critical approach in the media coverage of the pandemic. Very little is also framed within a legal perspective (3 pct. in debate programmes and 1 pct. in news) and as *conflict* (5 pct. in debate and 1 pct. in news). The frame *health system* accounts for 2 pct. in both programme types, even though the health system was the first responder to the crisis.

In total, the four generic frames that we included based on previous studies appeared only in 9 pct. of the content, either as a main frame or subframe. These were *group conflict, responsibility, human interest*, and *speculation*. Except from *human interest*, these are all frames taking a critical approach, and their established presence in previous framing studies makes their absence here largely unexpected. The four response frames (*the health system, collective efforts, legislation*, and *government measures*) appeared as a main frame or subframe in 22 pct. of the content. Of these, *government measures* alone accounted for 16 pct., while the other three accounted for only 2 pct. each. The three pandemic frames appeared in 32 pct. of the content. Both *medical risk focus* and *social*

behaviour and risk accounted for 12 pct. each. More prevalent were the three conse-
quences frames that appeared as main frames or subframes in 37 pct. of the content. Of
these, *societal consequences* accounted for 16 pct., followed by *economic consequences*,
with 14 pct.

Discussion

News media play vital societal roles, particularly during a crisis, ranging from primary
functions, such as information and knowledge dissemination (Viehmann et al., 2022), to
emergent functions such as "social glue" (Miles & Morse, 2007), as well as arenas for public
debate (Fedtke et al., 2021), social criticism, and holding those in power accountable
(Fonn & Hyde-Clarke, 2021). In this section, we discuss these functions regarding the news
media frames to answer the two research questions.

The information provider function

The widespread use of the frames *medical risk focus* and *social behaviour and risk* suggest
that both TV2 and NRK emphasised disseminating information and knowledge about the
pandemic, in terms of the sources of the outbreak, causes, spread, and how it could be
controlled. In addition, the news media kept the audience up to date on situations that
might increase the spread of infection, as well as contagious behaviour (holidays, social
gatherings, public transport, and events). This is in line with both broadcasters' public ser-
vice remits. It is plausible to assume that the dominance of the three pandemic frames (32
pct.) contributed to increased knowledge about the pandemic and to individuals chang-
ing their attitudes and behaviour through processing a variety of information from the
news media, as argued by some researchers (Bridgman et al., 2020; Malecki et al., 2021).
On the other hand, a UK study based on an audience diary suggests that many people
had a limited understanding of how the UK government was handling the pandemic
despite consuming and trusting public service broadcasting news (Cushion et al., 2021).

It is worth mentioning that the frame *illness and mortality* was the least used of the
pandemic-related frames, perhaps because the mortality rate from the coronavirus in
Norway was very low compared with other countries. Another reason could be that the
news media did not want to pay a lot of attention to these subjects to avoid panic-induc-
ing and alarming messages, as found in other studies (Morissan et al., 2020; Mutua & Oloo
Ong'ong'a, 2020; Nwakpu et al., 2020; Vasterman & Ruigrok, 2013).

Instead, the extensive use of the three consequence frames (37 pct.) suggests that
both TV2 and NRK chose to emphasise how the coronavirus affected different sectors
(transport, business, education, tourism, etc.) and aspects of our social life (work, leisure
time, children, cultural events, religious activities, and social gatherings). In our interpreta-
tion, the broadcasters managed to portray the pandemic not only as a health crisis but
also as an economic and a societal crisis by balancing the three Coronavirus frames and
the three consequences frames.

The arena for public debate function

Response frames are prominent in the coverage, particularly in debate programmes (30 pct.). The *government measure* frame is highly visible in both news and debate programmes, suggesting that news media may provide a function in promoting government transparency and accountability. To prevent the spread of disinformation, fake news, and conspiracy theories online (Kalsnes et al., 2021), there is a need for legacy media to focus on servicing the public with correct, precise, and the right amount of information during a crisis. In the news programmes, aspects of government measures are exposed, such as national versus local restrictions, the vagueness of recommendations for social distancing, and very strict infection prevention.

The function of holding authorities to account is related not only to government measures, but also to the health system and the legislation system. The analysis shows that three of the response frames were among the five least used frames, in addition to *responsibility* and *group conflict*. As arguments presented by opposing viewpoints are the main characteristics of debate programmes, one might have expected a higher prevalence of conflict between groups, attribution of responsibility, and politicisation in such programmes. The lack of such polarising frames might strengthen the legacy media's legitimacy as a trustworthy, responsible institution focused on providing the public with factual, scientific information about the Coronavirus, alongside an extensive report on the context of the pandemic, such as the impact on the economy, culture, and society. On the other hand, the Covid-19 pandemic has sparked political and economic conflicts between, and within, some countries (Ogbodo et al., 2020). In Norway, there was disagreement between the government and opposition parties about rushing through a Coronavirus law, both between national and local politicians about local restriction measures, and between politicians and medical experts about vaccination strategies, the infection risk in geographical areas, and the level and timeframe of restrictions. As the media coverage lacks *legislation*, *responsibility*, and *conflict* frames, one might argue that the media has neglected its role as critical investigator and watchdog. This argument finds support in another Norwegian study that documented the lack of critical journalism in two Norwegian outlets (Fonn & Hyde-Clarke, 2021, p. 13):

> Less than one-fifth of all news articles in our corpus can be said to be critical, interpretive or investigative. This is particularly apparent for articles about the virus, spread patterns, lethality, etc. but also for the majority of the news about the effects and the handling of the pandemic.

To act as an arena for debate and to be critical and investigative are difficult roles to fill under the extreme uncertainty and severe consequences that accompanied the social consequences created by the Covid-19 pandemic in the initial phase (Viehmann et al., 2022). The news media had to carefully balance their watchdog role – monitoring and scrutinising those in power – while simultaneously risking contributing to public fear

and panic by emphasising risks and uncertainties, as in previous health crises (Kilgo et al., 2019). Another balancing act was to make sure the state-owned public service broadcaster, NRK, was not seen as a mouthpiece of the government, while also allowing politicians and health experts to use news and debate programmes as arenas for speaking to the public. However, it is timely to question why critical issues were not subject to discussion or coverage.

The social glue function

The last function of news media is related to frames that constitute news media as a social glue that binds us together in a community of shared experiences and values (Miles & Morse, 2007). One might argue that the media function as social glue simply by disseminating common information to various sub-groups in the public (Enli & Syvertsen, 2020), but this function is also and more directly linked to the frames of *human interest*, *conflict*, and *collective efforts*. The two pre-defined generic frames of *human interest* and *conflict* (Semetko & Valkenburg, 2000) are often prevalent in Coronavirus studies, but in our case, these frames are among the least used. It is somewhat surprising that there were few examples of the human interest frame in the coverage and that the individual perspective was clearly not in focus. By telling human-interest stories, news media often manage to put a face or an individual's story to the presentation of an event or issue. They do this by using human interest as a subframe combined with an issue-specific main frame. But this was not the case for Coronavirus coverage in Norway. By not applying frames that may produce an affective or emotional response in the audience, the Norwegian news media seemed to rely on information-processing approaches, while disregarding how an affective or emotional response could influence the processing of information and persuasion.

The use of the *conflict* frame might contradict the social glue function, but if news media decide to reflect division and disagreement in society, the social implication of "we are at war with Covid-19" might mobilise and encourage people to join forces and fight the coronavirus. This understanding of the *conflict* frame shares similarities with the *collective efforts* frame and the call for joint efforts to stop the spread by appealing to a collective sense of solidarity. The call for collective effort is only negligibly represented, which is somewhat surprising, as both health authorities and politicians successfully appealed to a collective sense of solidarity (common good) during the outbreak of Covid-19 (Nilsen & Skarpenes, 2020). Compared with other studies with a similar frame, Poirier et al. (2020) found that the francophone media in Canada framed the Covid-19 pandemic more as an emergency to help Canadians abroad, while Nwakpu et al. (2020) found only little use of a mobilisation frame among four media analysed.

Our lack of results supporting the social glue function of public service broadcasting is somewhat surprising, as other studies found that such news media fulfilled their social-integrative function in times of crisis (Fedtke et al., 2021; Murdock, 2021; Viehmann et al., 2022).

The difference between frames in news reports and debate programmes
Concerning the second research question and the difference between frames present in news reports and debate programmes, the frames of *government measures* and *economic consequences* are more frequently found in debate programmes than in news programmes. These frames serve as tools for investigative journalism, which allow for a more critical stance towards political, economic, and medical elites meeting to discuss, debate, and state their views on a certain issue. For instance, the programme "Corona – are the measures strict enough?" on NRK *Debatten* on 17 March 2020, signalled a discrepancy between Norwegian health authorities and international expert networks (Kjeldsen et al., 2022). Among the four debate programmes in this study, a few may be regarded as entertaining public information programming, while others are more journalistic political current affairs debates, suggesting they address quite different audiences in terms of interest in and knowledge of the pandemic.

The frames *group conflict* and *responsibility* played modest roles in debate programmes, both as a main frame and subframe. This is not a good sign for a well-functioning democracy. While we acknowledge problems related to constructed entertainment and populistic conflation when conflict and confrontation structure debates, a healthy democracy is best served by political and investigative journalism with a critical stance (Fedtke et al., 2021). This is an imperative democratic function under "normal" circumstances, but even more important during times of crisis. One might argue that the initial phase of the Coronavirus pandemic did not allow for interpretive or investigative journalism, because if was more important to simply inform the public about the risks and preventions. As argued by Fonn and Hyde-Clarke (2021), the second wave of the pandemic in Norway (28 September–22 November 2020) was anticipated and met with more knowledge and preparation from both the public and the authorities. Hence, it could be argued that the news media had a greater opportunity during the second wave to create significant national debates and ask more critical questions regarding the restrictions. The lack of a sound public debate may also be linked to the broad political consensus behind the Norwegian pandemic strategy, which seemed more apparent during the pandemic than usual.

On the other hand, *medical risk focus, cultural consequences*, and *illness and mortality* frequently appeared more in news broadcasts than in debate programmes. It is striking that the news media regarded *cultural consequences* as newsworthy, but not a subject for discussion. The reluctance to discuss *illness and mortality* and *medical risk focus* is also worth mentioning, particularly as *medical risk focus* is the most used frame overall.

Implications and conclusion

This article aimed to add knowledge to the theory about public service broadcasting functions by examining the framing of the Covid-19 pandemic in six news and debate

programmes from two public service broadcasters in Norway. Theoretically and methodologically, we contributed to the framing literature by analysing broadcast media – which has not previously been subject to the same scrutiny as online and printed news – by including a range of frames, both main- and subframes, and by contextualising frames within a functionalist perspective.

We found that the two broadcasters prioritised their functions as providers of information on medical issues and preventative social behaviour, but that they failed to meet expectations for social integration, solidarity, and community building. It was unexpected to see that the public service broadcasters were not able to provide a form of social glue, as Norwegian health experts and local and national politicians strongly emphasised the notion of collective effort and appealed to people's sense of solidarity during the pandemic (Nilsen & Skarpenes, 2020). The two broadcasters managed only to some degree to promote public debate on coronavirus-related issues and question the national Norwegian coronavirus policy. These findings support those of Fonn and Hyde-Clarke's study of two Norwegian newspapers (2021). As our colleagues mentioned, the lack of critical journalism and the strong consensus culture among Norwegian news media was raised in the media itself in 2021. This suggests that the concern about the roles of both news media and public service broadcasting is growing in times of crisis. As our study shows, the role of public service broadcasting often includes complex and contradictory functions across broadcasting genres and journalistic choices. Although public service broadcasting is closely associated with historical value in keeping citizens well informed, the enlightening role could be less salient during times of crisis to allow independent and critical journalism to grow, particularly within the genre of debate and political talk shows. Fake news and the misinfodemic can best be fought with professional, independent, and critical journalism.

Concerning our methodology, it is worth noting the absence of generic frames in our findings. As the results show, frames capturing the consequences of the pandemic and pandemic-specific information were largely dominant in the coverage, while generic frames used in previous frame studies accounted for only 13 pct. This reflects the value of creating research-specific frames for studying a case, such as a pandemic, in media content analysis. However, generic frames might still be relevant, as they allow comparisons across studies (Semetko & Valkenburg, 2000). For an analysis of the results, the categorised two-step framing approach was useful in providing both an overview *and* deeper insight into each category by enabling a closer look at each value in the categories. Without this two-layered frame system, we would, for example, not be able to detect that although *response* was a prominent frame in both news and debate, it mostly concerned *response from the government*. The main- and subframe coding system further allowed us to see a more comprehensive picture of the presence of different frames ensuring that a binary focus and broadly-used subframes did not go unnoticed, and as such, it contributed to strengthening the validity of results.

In general, we accept that there are some limitations associated with content analysis (Karlsson & Sjøvaag, 2016) and framing studies (Entman, 1993; De Vreese, 2005). We found the development, testing, discussion, and redefinition of codes and the codebook for the 14 frames exhaustive and difficult, but also more useful than dealing with fewer, more generic frames. We initially wondered whether framing analysis was an ill-suited tool for broadcasting programmes, as this method is usually geared towards newspapers (both online and print), which are text-based media. However, our experience suggests otherwise, and we strongly encourage framing researchers to include radio and television programmes in their future studies. Our sample of reasonably neutral public service channels also denied us the possibility of linking findings to politicisation and polarisation in Covid-19 news coverage, as Fonn and Hyde-Clark (2021), Mach et al. (2021), and Hart et al. (2020) do. Future research should further investigate this lack of critical, investigative journalism, as there may be several reasons for this. In their eagerness to act responsibly, the media might have forgotten their responsibility to facilitate discussion and shed light on conflict of interest, scientific uncertainty, and political disagreement.

On a final note, and in line with framing theory, we argue that public service broadcasters played an essential role during the Covid-19 crisis to help people cope with the pandemic. As credible sources of information, we believe that the two broadcasters offered practical advice and helped people to understand events related to the pandemic. Focusing on a range of different consequences, the broadcasters played a key role in shaping our identities and engaging in a collective sensemaking function to understand the pandemic not only as a health crisis, but also as an economic and societal crisis.

Literature

Apuke, O. D., & Omar, B. (2021). Television news coverage of Covid-19 pandemic in Nigeria: Missed opportunities to promote health due to ownership and politics. *SAGE Open*, *11*(3), 1–13. https://doi.org/10.1177/21582440211032675

Baden, C. (2019). Framing the news. In K. Wahl-Jørgensen, & T. Hanitzsch (Eds.), *The handbook of journalism studies* (pp. 229–245). Routledge. https://doi.org/10.4324/9781315167497

Basch, C. H., Kecojevic, A., & Wagner, V. H. (2020). Coverage of the Covid-19 pandemic in the online versions of highly circulated US daily newspapers. *Journal of Community Health*, *45*(6), 1089–1097. https://doi.org/10.1007/s10900-020-00913-w

Bhatti, S. J., Billinson, P. P., Cornell, L. A., Das, A., Gammon, C., Kelly, L. O., Yang, J. & Kristiansen, S. (2022). A country comparative analysis of international print media's framing of the COVID-19 pandemic. *International Journal of Communication*, *16*, 27. https://ijoc.org/index.php/ijoc/article/view/17990

Bridgman, A., Merkley, E., Loewen, P. J., Owen, T., Ruths, D., Teichmann, L., & Zhilin, O. (2020). The causes and consequences of Covid-19 misperceptions: Understanding the role of news and social media. *Harvard Kennedy School Misinformation Review*, *1*(3), 1–18. https://doi.org/10.37016/mr-2020-028

Buus, S., & Olsson, E. K. (2006). The SARS crisis: Was anybody responsible? *Journal of Contingencies and Crisis Management*, *14*(2), 71–81. https://doi.org/10.1111/j.1468-5973.2006.00483.x

Carelli, P., & Sfardini, A. (2022). Educational television goes digital: Children's television and Italian public service broadcasting during the Covid-19 pandemic. *VIEW Journal of European Television History and Culture*, *11*(21), 95–103. http://doi.org/10.18146/view.281

Cascio, M. A., Lee, E., Vaudrin, N., & Freedman, D. A. (2019). A team-based approach to open coding: Considerations for creating intercoder consensus. *Field Methods*, *31*(2), 116–130. https://doi.org/10.1177/1525822X19838237

Cho, S., & Wang, Z. (2021). Towards media systems framework in Asia Chinese and Korean media on framing the initial Covid-19 pandemic. *International Communication Gazette*, *83*(5), 474–496. https://doi.org/10.1177/17480485211029056

Christensen T and Lægreid P. (2020) Balancing governance capacity and legitimacy: how the Norwegian government handled the COVID-19 crisis as a high performer. *Public Administration Review* 80: 774-779. https://doi.org/10.1111/puar.13241

Creswell, J. W. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. Sage.

Cushion, S., Morani, M., Kyriakidou, M., & Soo, N. (2022). (Mis)understanding the coronavirus and how it was handled in the UK: An analysis of public knowledge and the information environment. *Journalism Studies*, 23(5-6), 703-–21. https://doi.org/10.1080/1461670X.2021.1950564

De Coninck, D., d'Haenens, L., & Matthijs, K. (2020). Perceived vulnerability to disease and attitudes towards public health measures: Covid-19 in Flanders, Belgium. *Personality and Individual Differences*, *166*, 1–7. https://doi.org/10.1016/j.paid.2020.110220

De Vreese, C. H. (2005). News framing: Theory and typology. *Information Design Journal & Document Design*, *13*(1), 51–62. https://claesdevreese.files.wordpress.com/2015/09/devreese_2005_2.pdf

Ebrahim, S. (2022). The corona chronicles: Framing analysis of online news headlines of the COVID-19 pandemic in Italy, USA and South Africa. *Health SA Gesondheid*, *27*(1). https://doi.org/10.4102/hsag.v27i0.1683

Elliott, V. (2018). Thinking about the coding process in qualitative data analysis. *The Qualitative Report*, *23*(11), 2850-2861. https://doi.org/10.46743/2160-3715/2018.3560

Enli, G., & Syvertsen, T. (2020). The media welfare state: Why such a concept, what is it used for, does it have a future?. *Nordic Journal of Media Studies*, *2*(1), 37–45. https://doi.org/10.2478/njms-2020-0004

Entman, R. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, *43*(4), 51–58. https://doi.org/10.1111/j.1460-2466.1993.tb01304.x

Fedtke, J., Ibahrine, M., Zaid, B., & Shin, D. D. (2021). Containing a corona misinfodemic and covidiocy: Political talk shows on German public-service TV. *Journalism Practice*, 1–15. https://doi.org/10.1080/17512786.2021.2004201

Fonn, B. K., & Hyde-Clarke, N. (2021). Media consensus and divergences in Norway during the second wave of coronavirus infections. *Journalism Practice*, 1–17. https://doi.org/10.1080/17512786.2021.2001358

Gurevitch, M., & Blumler, J. G. (1990). Political communication systems and democratic values. In J. Lichtenberg (Ed.), *Democracy and the mass media* (pp. 269–289). Cambridge University Press. https://doi.org/10.1017/CBO9781139172271.011

Hart, P. S., Chinn, S., & Soroka, S. (2020). Politicization and polarization in Covid-19 news coverage. *Science Communication*, *42*(5), 679–697. https://doi.org/10.1177/1075547020950735

Horowitz, M. A., & Leino, R. (2020). Pandemic and public service media: Lessons from Finland. *Baltic Screen Media Review*, *8*(1), 18–28. https://doi.org/10.2478/bsmr-2020-0003

Hubner, A. (2021). How did we get here? A framing and source analysis of early COVID-19 media coverage. *Communication Research Reports*, *38*(2), 112-120. https://doi.org/10.1080/08824096.2021.1894112

Kalsnes, B., Falasca, K., & Kammer, A. (2021). Scandinavian political journalism in a time of fake news and disinformation. In E. Skogerbø, Ø. Ihlen, N. N. Kristensen, & L. Nord (Eds.), *Power, communication, and*

politics in the Nordic countries (pp. 283–304). Nordicom, University of Gothenburg.
https://doi.org/10.48335/9789188855299-14

Karlsson, M., & Sjøvaag, H. (2016). Content analysis and online news: Epistemologies of analysing the
ephemeral Web. *Digital Journalism*, *4*(1), 177–192. https://doi.org/10.1080/21670811.2015.1096619

Kilgo, D. K., Yoo, J. & Johnson, T. J. (2019). Spreading Ebola panic: Newspaper and social media coverage of
the 2014 Ebola health crisis. *Journal of Health Communication*, 34(8), 811-817.
https://doi.org/10.1080/10410236.2018.1437524

Kjeldsen, J. E., Ihlen, Ø., Just, S. N., & Larsson, A. A. O. (2022). Expert ethos and the strength of networks:
Negotiations of credibility in mediated debate on Covid-19. *Health Promotion International*, *37*(2),
1–11. https://doi.org/10.1093/heapro/daab095

Kleut, J., & Šinković, N. (2020). "Is it possible that people are so irresponsible?": Tabloid news framing of the
Covid-19 pandemic in Serbia. *Sociologija*, *62*(4), 503–523. https://doi.org/10.2298/SOC2004503K

Lecheler, S., & De Vreese, C. H. (2019). *News framing effects: Theory and practice*. Taylor & Francis.

Mach, K. J., Salas Reyes, R., Pentz, B., Taylor, J., Costa, C. A., Cruz, S. G., Thomas, K. E., Arnott, J. C., Donald,
R., Jagannathan, K., Kirchhoff, C. J., Rosella, L. C., & Klenk, N. (2021). News media coverage of Covid-
19 public health and policy information. *Humanities and Social Sciences Communications*, *8*(1), 220.
https://doi.org/10.1057/s41599-021-00900-z

Malecki, K. M., Keating, J. A., & Safdar, N. (2021). Crisis communication and public perception of Covid-19
risk in the era of social media. *Clinical Infectious Diseases*, *72*(4), 697–702.
https://doi.org/10.1093/cid/ciaa758

Miles, Matthew B, A Michael Huberman, and Johnny Saldaña (2014), *Qualitative data analysis: A methods
sourcebook*. Sage

Miles, B., & Morse, S. (2007). The role of news media in natural disaster risk and recovery. *Ecological eco-
nomics*, *63*(2-3), 365–373. https://doi.org/10.1016/j.ecolecon.2006.08.007

Morissan, J. A. W., Siang, T. G., & Cahyowati, T. D. (2020). Media framing on Covid-19 pandemic in Malay-
sian and Indonesian newspapers. *International Journal of Academic Research in Business and Social
Sciences*, *10*(10), 800–812. http://doi.org/10.6007/IJARBSS/v10-i10/8016

Murdock, G. (2021). Public service media for critical times: Connectivity, climate, and corona. In C. Fuchs,
& K. Unterberger (Eds.), *The public service media and public service internet manifesto* (pp. 69–111).
University of Westminster Press. https://doi.org/10.16997 /book60.d

Mutua, S. N., & Oloo Ong'ong'a, D. (2020). Online news media framing of Covid-19 pandemic: Probing the
initial phases of the disease outbreak in international media. *European Journal of Interactive Multime-
dia and Education*, *1*(2), 1–8. https://doi.org/10.30935/ejimed/8402

Neuendorf, K. A. (2017). *The content analysis guidebook*. Sage.

Newman, N., Fletcher, R., Schulz, A., Andı, S., Robertson, C. T., Kleis, R. N. (2021). *The Reuters Institute digital
news report 2021*. https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2021

Nilsen, A. C. E., & Skarpenes, O. (2020). Coping with Covid-19. Dugnad: a case of the moral premise of the
Norwegian welfare state. *International Journal of Sociology and Social Policy*, *42*(3/4), 262–275.
https://doi.org/10.1108/IJSSP-07-2020-0263

Nwakpu, E. S., Ezema, V. O., & Ogbodo, J. N. (2020). Nigeria media framing of coronavirus pandemic and
audience response. *Health promotion perspectives*, *10*(3), 192–199.
https://doi.org/10.34172/hpp.2020.32

Ogbodo, J. N., Onwe, E. C., Chukwu, J., Nwasum, C. J., Nwakpu, E. S., Nwankwo, S. U., Nwamini, S., Elem,
S., & Ogbaeja, N. I. (2020). Communicating health crisis: A content analysis of global media framing of
Covid-19. *Health promotion perspectives*, *10*(3), 257–269. https://doi.org/10.34172/hpp.2020.40

Ophir, Y., Walter, D., Arnon, D., Lokmanoglu, A., Tizzoni, M., Carota, J., D'Antiga, L. & Nicastro, E. (2021). The framing of COVID-19 in Italian media and its relationship with community mobility: A mixed-method Approach, *Journal of Health Communication*, 26 (3), 161-173. https://doi.org/10.1080/10810730.2021.1899344

Poirier, W., Ouellet, C., Rancourt, M. A., Béchard, J., & Dufresne, Y. (2020). (Un)covering the Covid-19 pandemic: Framing analysis of the crisis in Canada. *Canadian Journal of Political Science/Revue canadienne de science politique*, 53(2), 365–371. https://doi.org/10.1017/S0008423920000372

Riffe, D., Lacy, S., Watson, B. R., & Fico, F. (2019*). Analyzing media messages: Using quantitative content analysis in research* (4th ed.). Routledge. https://doi.org/10.4324/9780429464287

Rubin D. M., & Hendy, V. (1977). Swine influenza and the news media. *Annal of Internal Medicine*, 87(6), 769–774. https://doi.org/10.7326/0003-4819-87-6-769

Semetko, H. A., & Valkenburg, P. M. (2000). Framing European politics: A content analysis of press and television news. *Journal of communication*, 50(2), 93–109. https://doi.org/10.1111/j.1460-2466.2000.tb02843.x

Shih, T. J., Wijaya, R., & Brossard, D. (2008). Media coverage of public health epidemics: Linking framing and issue attention cycle toward an integrated theory of print news coverage of epidemics. *Mass Communication & Society*, 11(2), 141-160. https://doi.org/10.1080/15205430701668121

Siddiqua, A., Shabir, G., Ashraf, A., & Khaliq, A. (2020). Media framing of pandemics: A case study of the coverage of Covid-19 in elite newspapers of Pakistan. *Journal of Business and Social Review in Emerging Economies* 6(4), 1267–1275. https://doi.org/10.26710/jbsee.v6i4.1410

Sun, W. (2021). The virus of fear and anxiety: China, Covid-19, and the Australian media. *Global Media and China*, 6(1), 24–39. https://doi.org/10.1177/2059436421988977

Tejedor, S., Cervi, L., Tusa, F., Portales, M., & Zabotina, M. (2020). Information on the Covid-19 pandemic in daily newspapers' front pages: A case study of Spain and Italy. *International Journal of Environmental Research and Public Health*, 17(17), 1–16. https://doi.org/10.3390/ijerph17176330

Thomas, T., Wilson, A., Tonkin, E., Miller, E. R., & Ward, P. R. (2020). How the media places responsibility for the Covid-19 pandemic – An Australian media analysis. *Frontiers in Public Health*, 8(483), 1–14. https://doi.org/10.3389/fpubh.2020.00483

Túñez-López, M., Vaz-Álvarez, M., & Fieiras-Ceide, C. (2020). Covid-19 and public service media: Impact of the pandemic on public television in Europe. *Profesional de la información*, 29(5), 1–16. https://doi.org/10.3145/epi.2020.sep.18

Ursin, G., Skjesol, I., & Tritter, J. (2020). The COVID-19 pandemic in Norway: The dominance of social implications in framing the policy response. *Health Policy and Technology*, 9(4), 663-672. https://doi.org/10.1016/j.hlpt.2020.08.004

Vasterman, P. L., & Ruigrok, N. (2013). Pandemic alarm in the Dutch media: Media coverage of the 2009 influenza A (H1N1) pandemic and the role of the expert sources. *European Journal of Communication*, 28(4), 436–453. https://doi.org/10.1177/0267323113486235

Viehmann, C., Ziegele, M., & Quiring, O. (2022). Communication, cohesion, and corona: The impact of people's use of different information sources on their sense of societal cohesion in times of crises. *Journalism Studies*, 23(5-6), 629–649. https://doi.org/10.1080/1461670X.2021.1965907

Villena-Alarcón, E., & Caballero-Galeote, L. (2020). Covid-19 media coverage on Spanish public TV. *Tripodos*, 2(47), 103–126. https://raco.cat/index.php/Tripodos/article/view/377633

Wasike, B. S. (2013). Framing news in 140 characters: How social media editors frame the news and interact with audiences via Twitter. *Global Media Journal: Canadian Edition*, 6(1), 5–23. http://gmj-canadianedition.ca/wp-content/uploads/2018/11/v6i1_wasike.pdf

Örnebring, H. (2003). Televising the public sphere: Forty years of current affairs debate programmes on Swedish television. *European Journal of Communication, 18*(4), 501–527. https://doi.org/10.1177/0267323103184004

Appendix 1: Content was coded for the following 14 frames

Economic consequences	Such as for organisations and companies or personal finances. Usually features societal development at the macro level. Consequences can be both positive and negative.
Societal consequences	Such as for working life (unemployment, redundancies, and strikes), the health system, the educational sector, and the political system.
Cultural consequences	Consequences for sports, culture, leisure, and religion. Such as, e.g., football and the Olympics, etc. Closure of cultural events and cinemas.
Human interest frame	Person-focused angle, about people affected, e.g., human interest stories. Situated at a micro level.
Responsibility	Cause of or solution to an issue, highlighting who is responsible, be it a country, group, or individuals. Includes moral responsibility and often involves political disagreement.
Speculation	Often panic-triggering news, or about "fake news" and conspiracy theories. Bringing forth what "may come".
Group conflicts	Conflicts between special groups, e.g., social groups or ethnicities (examples have been students, families travelling to their cabins, minority groups, bus drivers, and more). May include conflict in society (e.g., strikes, protests).
Medical risk focus	Factual frameworks on epidemiology, information concerning symptoms, treatment, and vaccination.
Social behaviour and risk	Spread of infection in different situations (examples have been holidays, a cave party, the Hurtigruten cruise ship, restaurant visits, and gatherings). Includes discussions about how and when to use facemasks and disinfection, and distance between people.
Illness and mortality	Death rates, registers of the infected and hospitalisation.
Government measures	Practices and restrictions, both nationally and locally.
Legislation	Issues concerning governance, democracy, and the law.
The health system	Issues concerning the health service, hospitals and health personnel, preparedness, and public health response.
Collective effort	Matters that call for joint efforts to stop the spread, appeal to a collective sense of solidarity.