

Vaccine rhetoric, social media, and dissensus

An analysis of civic discourse between Norwegian health authorities and citizens on Facebook and Twitter during crisis

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Abstract

To shed light on the rhetorical aspects of communication during crisis, we examined the Norwegian discourse on Facebook and Twitter related to the issue of Covid-19 vaccines. Based on our review of recent Nordic studies, we compare our findings with existing studies on social media and Covid-19 in Denmark, Finland, and Sweden. We apply the conceptual frame of rhetorical citizenship in our analysis of the rhetorical practices by Norwegian health authorities and how citizens perceived, supported, or contested information about Covid-19 vaccines between July 2020 and March 2021. The analysis shows a change over time and a shift of moods and arguments reflecting the unfolding of the crisis, going from scepticism to optimism, to disappointment and critique of the health authorities. Observing that social media dynamics may further unproductive dissensus, we argue that rhetorical practices are an essential aspect of communication strategies to maintain civic deliberation and trust during crisis management.

Keywords: Facebook, Twitter, Covid-19 vaccines, rhetorical citizenship, vaccine dissensus

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Introduction

Social media has become an important arena for civic discourse. On the one hand, social media can be said to constitute a democratisation of the discussion of society (Lutz et al., 2014), but on the other, it can fuel the spread of misinformation and disinformation, and it can generate information overload and confusion (Farkas & Neumayer, 2020; Woolley & Howard, 2017). This applies also to the Nordics, which constitute one of the most digitalised regions in the world (Eimhjellen, 2018). Although Nordic citizens are known for their high level of trust in authorities (Martela et al., 2020), they also face challenges of disinformation and misinformation online (Schia & Gjesvik, 2020). Disinformation can be defined as “false, inaccurate, or misleading information designed, presented and promoted to intentionally cause public harm or for profit”; in contrast, misinformation is “misleading or inaccurate information shared by people who do not recognise it as such” (European Commission, 2018: 10). In times of crisis, such as the Covid-19 pandemic, authorities must reach the public with proper information in an increasingly complex information environment (WHO, 2020).

A central topic in the civic discourse has been Covid-19 vaccines, which have been promoted as the solution to the pandemic by health authorities. In general, the issue of vaccines provides a specific communication challenge and certain prerequisites for civic discourse. In 2019, the World Health Organization identified vaccine hesitancy as a major threat to global health, accompanied by increased concern about the growth of online misinformation about vaccines (WHO, 2019). Overall, research has identified concerns about possible adverse effects, the effectiveness or safety of new vaccines, and lack of trust in institutions as common reasons for contesting vaccines (Faasse et al., 2016; Puri et al., 2020). Moreover, while the discourse is often characterised as pro- or anti-vaccine, many occupy a middle ground where they recognise the value of vaccines, but where potential dangers pose real concerns (Faasse et al., 2016).

The purpose of this chapter is to examine the public’s perceptions and responses on Facebook and Twitter to the Norwegian health authorities’ handling of the Covid-19 pandemic, focusing on vaccines. Two research questions are raised:

- RQ1. How do citizens support or contest information about Covid-19 vaccines as conveyed by health authorities on Facebook and Twitter?
- RQ2. How can we understand the authorities’ rhetorical practices in the interaction with citizens on social media?

Few of the existing studies that address the issues of social media and the ongoing Covid-19 pandemic in the Nordic countries have been carried out in Norway.

We seek to fill this gap and complement existing studies by examining Facebook and Twitter discussions about vaccines in the wake of the Covid-19 pandemic in the Norwegian context. While most Nordic studies use other types of sources, such as interviews and surveys, to shed light on social media dynamics, we provide new insights in this chapter by analysing material collected from social media. Although our focus is on Norway, we draw comparisons between our findings and empirical findings in other Nordic countries.

To achieve a better understanding of the vaccine rhetoric on social media, we apply the conceptual framework of “rhetorical citizenship” (Kock & Villadsen, 2012, 2017), a concept that emphasises the discursive dimension of citizenship, advocating the need for critical observation, description, and evaluation of the rhetoric being used. This chapter is based on a unique dataset with 4.6 million posts and comments written in Norwegian and collected from Facebook and Twitter. The data comprises discussions around Covid-19 vaccines during 1 July 2020–31 March 2021.

The next section provides a brief overview of existing Nordic studies. This is followed by a section that presents the conceptual frame of rhetorical citizenship and describes the methods used and the empirical data material. Next is a section with an analysis of the Covid-19-vaccine discourse on Facebook and Twitter, focusing on posts by Norwegian health authorities and reactions from the public. We also compare our findings with existing studies on social media and Covid-19 in Denmark, Finland, and Sweden. Thereafter, the main findings are discussed through the lens of rhetorical citizenship. In the final section, we conclude the analysis and suggest possible future research avenues.

The Nordic context: Social media and Covid-19

Recent studies investigating social media dynamics and the Covid-19 discourse in the Nordics can be broadly divided into two categories: 1) scientific communication and public perceptions, and 2) misinformation, disinformation, and conspiracy theories. In addition, although it does not specifically address Covid-19, a third category includes studies that provide insights into vaccine attitudes and perceptions in the Nordic countries.

Among the studies addressing scientific communication and public perception, trust is a central issue (for a discussion of how high trust in the Nordics influenced the public’s support of their governments’ Covid-19 strategies, see Johansson et al., Chapter 13). Analysing the Danish Twitter landscape in the wake of the Covid-19 pandemic, Breslin and colleagues (2022) found that the pandemic situation and the partial lockdown by the Danish government led to a rise in Danish tweets about trust. More than half of the analysed tweets expressed mistrust, largely towards the government, authorities, and institutions.

The study suggests that these tweets were an instance of affective nationalism, whereby Danish identity was communicated, and with Twitter as an arena where norms, values, and ideas connected to the crisis were negotiated.

A study that compared how people in Denmark and Sweden search for and perceive Covid-19 information found that Danes and Swedes, in general, trust information from health authorities and researchers (Stjernswärd et al., 2021). Although the Danish and Swedish governments opted for different strategies for handling the pandemic, there are similarities between the two countries. Drawing on a web-based survey, Stjernswärd and colleagues (2021) observed that in both countries, television was reported as the most reliable source of information, while Facebook was the most used social media platform to get information about Covid-19. Danes, however, were more likely to use social media to search for information from other sources, such as politicians and healthcare professionals.

On the other hand, during the pandemic in Finland, the expertise of the Finnish Institute for Health and Welfare [Terveyden ja hyvinvoinnin laitos] became increasingly contested. Analysing the main motivations and argumentations in this public contestation on Twitter, Välvirronen and colleagues (2020) identified three typical forms of critique: 1) a liberalist critique, which criticised the Finnish Institute for Health and Welfare for old-fashioned policies, lack of transparency, and for being too bureaucratic; 2) critique of the epidemiological models and the technical understanding of these as well as the competence of the authorities; and 3) critique against too lax infection-control measures involving the promotion of strict lockdown measures. Furthermore, the main critics were found to be, among others, opposition politicians, technology experts, scientists, and various groups of active laypersons. Interestingly, the study sheds light on how alternative forms of expertise are promoted when the public, as part of Twitter networks, questions established expertise.

In parallel with the spread of Covid-19, there has been a surge of online disinformation and conspiracy theories concerning the Covid-19 pandemic, particularly on social media (EEAS, 2021). A survey study drawing on data from Denmark and Germany shows that encountering and believing in conspiracy theories about governmental reaction to Covid-19 are linked with less institutional trust and less support for and adoption of regulations (Pummerer et al., 2020). Moreover, disinformation is perceived as a challenge that can undermine the democratic process (Schia & Gjesvik, 2020). However, with social media blurring the authenticity and correctness of information, it is difficult to distinguish between disinformation and misinformation (Glasdam & Stjernswärd, 2020). For example, it has been found that while much of the international reporting on the course of events in Sweden was balanced and mostly accurate, it did contain misinformation and truths taken out of context (Irwin, 2020). This, in turn, gave rise to further misinterpretation on social media. The nar-

rative of Sweden following a herd immunity strategy – and implicitly risking people’s lives – was given a great deal of attention. It overshadowed the more accurate narrative that described the Swedish authorities’ hope that some level of herd immunity would be a positive side effect; however, it was not the main strategy (Irwin, 2020).

A web-based survey analysis of vaccine confidence and attitudes towards vaccination among Swedish parents found that vaccine refusers to a greater extent searched for information online and on social media (Byström et al., 2020). The study found that the main reasons for questioning or refusing a vaccine were concerns over adverse events, as well as negative information or lack of information. Similar arguments have also been found in Finland based on qualitative in-depth interviews with Finnish parents who refused several or all vaccines for their children (Nurmi & Harman, 2020). Three categories of reasons were identified: risks and effects of vaccinations; distrust towards vaccination recommendations made by health officials and medical professionals due to perceived bias in medical research; and health perceptions and practices, where parents adhered to complementary and alternative medicine treatments and health understandings.

Overall, the above review of Nordic studies indicates that the dissensus embedded in the civic reactions and deliberations related to Covid-19 echoes fundamental concerns related to issues such as safety and lack of trust in science and societal institutions.

The conceptual frame of rhetorical citizenship

Social media has gained immense popularity over a short time span. Citizens, businesses, and public and private agencies post and share content and react and comment to promote views and agendas in widely different forms. Importantly, social media have become an arena for the deliberation of public issues – both among citizens and between citizens and national authorities (van Dijck & Alinejad, 2020). Rhetorical citizenship is a conceptual frame that seeks to capture the ways citizenship is discursively constituted and enacted. It was first coined by Kock and Villadsen (2012), who took a republican view of citizenship, which sees deliberation as the essence of a contemporary democracy. As such, rhetorical citizenship is a useful analytical approach for understanding the civic discourse taking place on different online platforms, such as Facebook and Twitter.

In the frame of rhetorical citizenship, citizenship is understood as a discursive phenomenon, in the sense that important civic functions take place in deliberations among citizens, and thus form a central part of civic engagement. The term rhetoric has a twofold definition: On the one hand, rhetoric is the

practice of civic communication, and on the other, it is the academic study of it (Kock & Villadsen, 2012).

Rhetorical citizenship involves both a descriptive and a normative dimension. The former aims to understand the practical discourse on public issues, while the latter brings attention to notions of empowerment, inclusivity, and discourse ethics. Regarding the descriptive dimension, we aim to analyse how citizens and authorities communicate about Covid-19 vaccines. Kock and Villadsen distinguish between elite rhetoric and vernacular discourse. Elite rhetoric directs our attention to Facebook posts and Tweets by national authorities and public figures. In contrast, vernacular discourse emphasises the informal and everyday instances of civic interaction between citizens (Kock & Villadsen, 2012, 2017). With the importance of paying attention to context for understanding the rhetoric, central considerations are the forms of participation we observe, who participates, and how speaking positions are allotted and organised. Vernacular discourse can also include a wide range of non-discursive manifestations and objects, for example, likes, emojis, and memes, “through which citizens interpret and enact their roles as citizens” (Kock & Villadsen, 2017: 572).

Although we do not take a normative stance regarding the specific views on Covid-19 vaccines, we draw on the normative part of rhetorical citizenship in its attention to the empowering and emancipatory aspects of rhetoric in society (Kock & Villadsen, 2012). Key questions for both elite and vernacular discourse are, then, whether the practical rhetoric furthers constructive civic interactions or stops the debate, whether actors are privileged or excluded, and whether the rhetoric builds or undermines trust (Hoff-Clausen & Ihlen, 2015). Lastly, the normative aspect of rhetorical citizenship underlines the importance of conflicting desires in a democracy. While deliberation is seen as essential for democracy, it is not believed that deliberation necessarily will, or should, lead to consensus. Instead, dissensus is seen as intrinsic in a democracy and central in rhetorical practices (Kock & Villadsen, 2012).

Methods and data material

For the data collection and analysis of open Facebook posts and comments and tweets on Twitter, we have relied on a tool and method developed by SINTEF for scraping, parsing, and analysing data (Grøtan et al., 2020). Following the conceptual framework of rhetorical citizenship, we do not aim to quantify the empirical data from social media, but rather perform a textual analysis to evaluate the rhetoric on Covid-19 vaccines.

For the study of the vaccine discourse, we have analysed Facebook and Twitter data from 1 July 2020–31 March 2021. Facebook is the most popular social media platform in Norway, where 83 per cent of the population has a profile

and, strikingly, 69 per cent of the population use the platform daily (Ipsos, 2021). Only 27 per cent of the Norwegian population have a Twitter profile, and 9 per cent use Twitter daily (Ipsos, 2021). However, Twitter is an important part of the networked sphere in which political issues are discussed (Breslin et al., 2022). Thus, Facebook was chosen as the main empirical material for this study, with data from Twitter functioning as a smaller, complementary sample.

The analysed data material is a subset of a larger dataset collected for the research project, *Pandemic Rhetoric, Trust and Social Media: Risk Communication Strategies and Public Reactions in a Changing Media Landscape (PAR-TS)*. The project investigates current communication strategies of Norwegian health authorities, reactions in the public in terms of trust, fear and behavioural change, and the role of social media in the crisis (Ihlen, 2020). The PAR-TS dataset was collected to include Facebook and Twitter data that was relevant for the handling of the Covid-19 pandemic in Norway. The collection was based on a comprehensive thematic Norwegian Covid-19-related keyword list for Twitter, whereas for Facebook, we collected posts, including comments, from web pages of the government, politicians, health authorities, and Norwegian newspapers. From a pool of approximately 4.6 million open Facebook posts and comments and tweets, we then filtered for relevant posts and comments using a query of two keyword groups in Norwegian, thematically focused on health authorities and vaccines (these keywords were “vaccine”, “Pfizer”, “Moderna”, “AstraZeneca”, “Janssen”, “Johnson”, “Sputnik”, “FHI”, “Institute of Public Health”, “Ministry of Health”, “Directorate of Health”, “authorities”, “government”, “health authorities”, “Prime Minister”, “Minister of Health”, “Solberg”, “Guldvog”, “Nakstad”, “Høie”, “Stoltenberg”). Results that were not relevant to the vaccine discourse and duplicates were then excluded. As a result, the empirical data analysed include a combination of posts by politicians and Norwegian health authorities mentioning vaccines with related comments, and comments by lay people referring both to health authorities and Covid-19 vaccines. In sum, we analysed 8,478 Facebook posts and comments and 469 Tweets.

During the first qualitative exploration phase, we performed an initial sentiment analysis of the data. During this phase, we held frequent meetings to discuss our observations from the qualitative explorations. Consequently, we identified changes in sentiment over time, which led us to divide the empirical data into three phases, as outlined in the following section. Furthermore, different thematic categories were identified in the data according to the various sentiments that we observed being expressed in the vaccine discourse. Before the main analysis phase, we thus established a set of themes (see Table 11.1) (Glasdam & Stjernswärd, 2020; Väliverronen et al., 2020). The data was subsequently analysed qualitatively with the use of a loosely structured thematic coding document (Glasdam & Stjernswärd, 2020), where the different themes

and subthemes were counted, and example citations were noted. Furthermore, we analysed the data chronologically and within the context of their discussion threads.

Table 11.1 *Categories of themes and subthemes*

Themes by sentiment	Subthemes
Critical of authorities' Covid-19 vaccine policies	Does not agree with the vaccination policy Critical of the competence of government or health authorities Believes in conspiracy theories about the vaccine
Positive towards authorities' Covid-19 vaccine policies	Agrees with the vaccination policy Trusts the competence of government or health authorities
Critical of Covid-19 vaccines	Fearful of adverse effects Critical of the lack of information about vaccine development and content Believes in conspiracy theories about the vaccine
Positive towards Covid-19 vaccines	Considers the vaccine to be the solution to the pandemic Believes the vaccines to be safe

To preserve the privacy of individuals and in accordance with the GDPR agreement with Sikt (formerly the Norwegian Center for Research Data), we cannot refer to or quote a private individual's account directly. Therefore, citations from the accounts of private individuals have been paraphrased. Each paraphrased user is given a numbered reference in the text chronologically after the date of the post (e.g., Facebook user 1). Moreover, we have translated all citations in Norwegian to English.

Norwegian vaccine rhetoric on Facebook and Twitter

After mid-2020, the debate regarding vaccines became increasingly relevant. The strategy of Norwegian health authorities involved limiting infection and “flattening the infection curve” to avoid too many sick people at the same time, until vaccination could be initiated (Norwegian Government, 2021). With the European Union providing conditional approval of Pfizer and Moderna vaccines, the Norwegian government put forward its aim and prioritisations for the Covid-19 vaccine on 4 December 2020. Later that month, the government announced the arrival of a batch of vaccines, with the first vaccine injection in Norway administered on 27 December 2020 (Norwegian Government, 2021).

In this section, we analyse the vaccine discourse on Facebook and Twitter. Our aim is not to quantify the data material, but to describe and evaluate the rhetoric by public figures (elite rhetoric) and lay people (vernacular discourse) before we, in the following section, discuss the main findings in light of rhetorical citizenship. Based on our initial analysis, three phases and their change of sentiment emerged from the empirical data, which we address accordingly: 1) July–November 2020, a solution approaches; 2) turn of the year 2020–2021, hope dominates; and 3) February–March 2021, the tide turns.

A solution approaches

In Norway, Covid-19 vaccines entered the arena of civic discourse on Facebook and Twitter in mid-2020, as reports were coming in that the development of several vaccines was close to being achieved. Our data material from Twitter during this period is, however, scarce. Although many tweeted about vaccines in general, few connected vaccines to Norwegian health authorities. In comparison, there was more active discussion on Facebook. This phase is marked on Facebook by an overall scepticism and fear of adverse effects connected to the fast development of the vaccines and their seemingly hasty approval.

On 14 August 2020, the Norwegian minister of health, Bent Høie, published a post on his official Facebook account as an encouragement to the Norwegian people:

I know that many are having a hard time now. The holiday is over, and the end of summer is near. Winter is coming, as they say in *Game of Thrones*. [...] Every day, work is taking place that can lead us a bit closer to an effective vaccine. A vaccine will maybe give back to us what we all long for. An everyday life without a life-threatening virus. [...] (Høie, 2020)

The rhetoric in this post is sympathetic and invitational, which was a common trait for the many Facebook posts by the minister of health at the time. He recognised the difficulties the people were facing and put forward the vaccine as the solution. Moreover, Bent Høie often called for *dugnad*, a much-used word in Norwegian meaning to make a common effort, urging citizens to act for the common good (for further discussion of how the concept of *dugnad* was harnessed during the crisis, see Nord & Olsson Gardell, Chapter 3; Almlund et al., Chapter 6).

Reviewing the vernacular discourse during this period, many were positive and praised the minister of health for good and clear communication. Predominantly, however, people were concerned and sceptical. Among those who were concerned about the safety of the Covid-19 vaccines, we found two separate groups of users on Facebook: those who were sceptical of the vac-

cine due to fear of adverse effects, and those who tied the vaccine to a wider Covid-19 conspiracy.

Those who were sceptical of the Covid-19 vaccines were mainly concerned with the fast development, the uncertainty around the different types that were being developed, and the lack of information about them. This direction seems to be expressed by the majority of those who were active in the vaccine debate at that time. Some were clearly distrustful. One Facebook user stated that they had no confidence in the pharmaceutical industry, nor in the Norwegian healthcare system (Facebook user 4, 14 October 2020). Others argued that alternative remedies are both safer and healthier options than vaccines. Many listed previous negative experiences with vaccines as reasons for their fear. One Facebook user asked whether people had forgotten the Pandemrix vaccine and the swine flu, where an untested vaccine was pushed on the citizens, and as a result, thousands had long-term side effects and pain (Facebook user 1, 1 July 2020). Since the swine flu vaccine was also recommended for mass vaccination by the Norwegian health authorities (Norwegian Ministry of Health and Care Services, 2012), some Facebook users raised concerns about the trustworthiness of the health authorities. These arguments promoted by vaccine sceptics, which resonate with studies from Denmark, Sweden, and Finland (Agergaard et al., 2020; Byström et al., 2020; Nurmi & Harman, 2020), indicate that the vaccine issue causes the same concerns across the Nordic countries, independent of the type of vaccine.

The second direction of vaccine scepticism concerns fear that the vaccines are part of a worldwide conspiracy to take control over people. For instance, one Facebook user asked Høie if the vaccine includes the insertion of a nanochip and demanded an answer (Facebook user 3, 30 September 2020). The vernacular discourse on this topic was dominated by individuals who were convinced that the Covid-19 pandemic was planned. The Western world elite was presented as responsible, and actors frequently mentioned were Bill Gates, the pharmaceutical industry, and high-level Norwegian politicians. One Facebook user retorted that the minister of health is a “bluffer”, and that the government is making use of scaremongering to peddle the genetically modified vaccine of Bill Gates (Facebook user 2, 9 September 2020). This corresponds to the study on Denmark and Germany, which found that persons believing in conspiracy theories regarding the governmental reaction to Covid-19 have less institutional trust (Pummerer et al., 2020). Our findings also resonate with the annual threat assessment of the Norwegian Police Security Service, which highlights the growing online activity of people expressing anti-government attitudes, especially in connection with conspiracy theories involving Covid-19 (PST, 2022).

Hope dominates

As the vaccines were approved in the European Union and subsequently in Norway, there was a shift from a general scepticism concerning the vaccines to more reassured opinions. In general, the topic of vaccines created much discussion during this period.

On 27 December 2020, Prime Minister Erna Solberg tweeted her joy and optimism: “We are waiting for the first vaccine”, with an attached image of her taking part in a digital meeting with the governing mayor of Oslo and the minister of health (Solberg, 2020). The occasion was a live broadcast of the first person in Norway to receive a dose of the vaccine. What followed was an interesting exchange of comments between the prime minister and various Twitter users. Many commented that Solberg should be vaccinated first, while others stated that they would not be vaccinated. In this Twitter thread, there were several replies from Solberg. All were relatively short, and most replies conveyed a sense of patience and calm: “[I will get vaccinated] when it is my turn in the queue, healthy people between 55–65” and “Of course, but [I] won’t cut in line” (Solberg, 2020). One reply from Solberg, however, was very direct, commanding specific commentators to “stop spreading lies” (Solberg, 2020).

Considering the rhetoric by the minister of health and the Norwegian Institute of Public Health [Folkehelseinstituttet] on Facebook, we observed that they took the opportunity to present the vaccination process as the light at the end of the tunnel. As stated by Høie in a Facebook post on 6 January 2021:

The vaccine makes us see a light at the end of the tunnel, but we must reduce the infection now so that the winter and spring will be easier. I understand that many are impatient and want the vaccination to happen faster. But we are underway. And it has happened faster than we dared hope for. (Høie, 2021a)

Høie continued during this period to encourage citizens to contribute to a common effort for the common good. A usual feature of the Norwegian Institute of Public Health’s posts is that they answered most of the questions asked, and occasionally linked to their web page: “Hi [...]. Fortunately, the vaccine(s) seem to be working very well, with no serious adverse effects. So, we know a way out of this, although it will take some time before the restrictions can be eased” (NIPH, 2020). By being active and replying to Facebook users, the institute engaged in the civic discourse and contextualised information, and thus avoided the risk of further misinterpretation on social media (Irwin, 2020).

From a vernacular discourse perspective, we observed practically oriented discussions on both Facebook and Twitter throughout this phase of optimism. At this point in time, citizens expressed satisfaction with the authorities and confirmed their part in making a common effort. In general, people expressing support were rather short in their comments. The rhetoric signals willingness

to do their part to ensure the well-being of society. For instance, one Facebook user commented that they are for a common *dugnad* – that is, for a common goal to reach a normal everyday life further down the road – and that they hope as many as possible will take the vaccine, since it will benefit everyone (Facebook user 6, 21 December 2020). Many also expressed appreciation towards the Norwegian Institute of Public Health for answering their questions. One Facebook user stated it was good that they provided information about the effects of the vaccine and expressed hope that the public would be properly informed (Facebook user 7, 22 December 2020). Others expressed appreciation for a job well done and stated that they trust the authorities.

Importantly, there was also a shift during this phase, with more replies and counter-arguments against those who were sceptical of vaccines and those who were sharing conspiracy theories. For example, a Facebook user commented to another Facebook user that they should stick to Harry Potter, since they were presenting magic and rose therapy as a better solution than vaccines, and moreover, that they should stop spreading lies and conspiracy theories about the vaccine (Facebook user 5, 2 December 2020).

The tide turns

The arrival of Covid-19 vaccines to Norway coincided with a second wave of infections. Consequently, the population was under many restrictions and lockdowns in several places in the country. Especially Oslo and its surrounding regions had heavy restrictions during November 2020–February 2021, due to high infection rates (Norwegian Government, 2021). Thus, the hope of vaccines being the solution to the pandemic soon dwindled alongside the perceived slow pace of administering vaccinations. This phase was marked by a greater degree of contestation and alternative views of the messages conveyed by the government and health authorities.

As the administration of vaccines was underway, citizens questioned the safety of the vaccines. At the end of January 2021, 30 deaths among elderly people who had been vaccinated received considerable attention. The issue was addressed by the Norwegian Institute of Public Health (NIPH, 2021) in a Facebook post:

Most nursing home residents have now been vaccinated. [...] The Norwegian Medicines Agency publishes weekly overviews of suspected side effects. Per 21 January, they have reported 30 deaths. This does not mean that there is a causal link between the deaths and the vaccine. A common feature of these deaths is that they have occurred among frail and elderly nursing home residents with serious underlying diseases. [...] But the Norwegian Medicines Agency and the Institute of Public Health have good routines and will go

through each case thoroughly to investigate whether any of the cases may be related to the vaccines.

The post has a factual tone and appears to aim at easing concerns among citizens, to avoid scaremongering, and at the same time build the public's trust in the institute. Central goals of the Norwegian Institute of Public Health on social media have been to maintain trust, answer questions, and correct factual errors and allegations, as well as listen to and invite dialogue with the public (NIPH, 2022).

On 24 February 2021, Høie published another long Facebook post mainly devoted to the issue of vaccination. He stated that although the vaccinations were progressing, most of the restrictions placed on the population would continue. Nevertheless, he ended the post by encouraging citizens to persevere:

We are moving towards brighter times. However, I would like to remind you that we are still in a vulnerable situation. If we release the measures prematurely, or if fewer people follow the national and local infection control recommendations, there is a risk that the infection will rise rapidly and that we will lose control. This must not happen. Therefore, endure the last stage as well – we have never been closer to the finish line. (Høie, 2021b)

The post conveys optimism but also emphasises how citizens should behave. The minister of health continued to urge for a common effort, highlighting community priorities and citizens' options and saying that by not following government recommendations, the situation would turn dire.

On Facebook in particular, we saw a shift from the spirit of “a common effort” and praise of health authorities to a general disenchantment. The debate atmosphere was marked by angry comments and much criticism toward the authorities. As opposed to the rather short comments by those who were supportive, those who were critical often wrote long and emotional posts. Very few commentators praised the health authorities at that point. For instance, one Facebook user stated that the Norwegian people are slowly but steadily being led into a dictatorship, that the new world order is approaching, and that people just cannot see it due to fear and scaremongering (Facebook user 8, 28 February 2021).

An important trend was more link-sharing from Facebook to alternative news media, social media sources, and case-specific websites presenting alternative views of the pandemic that lean in the direction of conspiracy theories (e.g., BitChute) rather than to traditional media sources. This alternative information included both misinformation and conspiracy theories. An example of misinformation was the circulation of rumours that one adverse effect of the vaccine is sterilisation. Moreover, those sharing conspiracy theories strongly

contested the information from authorities. For example, one Facebook user refuted that mRNA vaccines are indeed vaccines and stated that we are dealing with gene therapy of people (Facebook user 9, 22 March 2021). Competing narratives were also found in Finland (Väliverronen et al., 2020), which strengthens the notion that when established expertise is contested, alternative expertise is advocated.

There was also considerable dissensus on Twitter, but the dissensus was predominantly among citizens. The vernacular discourse was mainly factual and can be described as constructive civic interaction. At the same time, the issue of vaccine certificates – documentation of completed vaccination against Covid-19 – triggered heated discussions and strong emotions. A common feature of the Norwegian tweets on this topic is the use of exclamation marks, angry emojis, and capital letters. Those critical of the possible introduction of vaccine certificates expressed concerns about privacy, restriction of freedoms, and that the certificates contradict the fact that vaccinations are voluntary. Many were clearly frustrated, exemplified by one Twitter user who stated that people are discriminated against when one is not allowed to participate in society without taking what is perceived as an experimental vaccine (Twitter user 1, 2 March 2021). Moreover, Twitter users tied the issue of vaccine certificates to totalitarian regimes and a breach of the rule of law and human rights. One argued that if people continue listening to the authorities, we will move into a totalitarian society without rights, acting as sheep (Twitter user 3, 14 March 2021). This critique corresponds to the study of the public contestation of the expertise of Finnish health authorities, with critique that liberal rights are infringed (Väliverronen et al., 2020). Counter-arguments to this rhetoric underlined that several countries demand vaccination against other diseases, or entry visa, and that as citizens, we have obligations and responsibilities as well as freedoms and rights. For example, one Twitter user retorted that no one is refusing people the right to travel or express their opinions, however, that with being part of a community comes certain demands which one can either accept, or not accept and miss an opportunity (Twitter user 2, 3 March 2021). These types of negotiations about what it entails to be a citizen, which were also found on Danish Twitter (Breslin et al., 2022), indicate that a broad-reaching crisis triggers reflections on society and our roles as citizens.

Discussion

In this section, we take the analysis a step further and apply the conceptual frame of rhetorical citizenship to the empirical data, while remaining sensitive to the formative context of a societal crisis. From the early discussions of forthcoming vaccines to the process of administering vaccines, there was a notable

change in sentiment and rhetorical practices in the civic discourse, reflecting the unfolding of the pandemic. The pluralism of opinions and expressions on Facebook and Twitter provide both support and contestation of the information about the Covid-19 vaccines as conveyed by the authorities. Comparing the rhetoric, we observe that those who expressed support were rather short in their replies, whereas those contesting the information from authorities often wrote long, emotional comments. Overall, the discourse can be described as vaccine dissensus.

Those who supported the information and the authorities' handling of the Covid-19 pandemic tapped into what it means to be a citizen, and their role as such. Considering that how we talk about civic issues reflects and affects the perception of our role in society (Kock & Villadsen, 2017), the emphasis was on the importance of joining the common effort and working together towards the common good (i.e., get through the pandemic safely and get society functioning again). The notion of the role as citizens is also reflected among those whose rhetoric underlines vaccine scepticism and critique. Those who explicitly contested information from authorities expressed a form of sensed marginalisation and restricted freedom, from which they criticised health authorities. They often expressed mistrust, as well as advocating alternative expertise, with some promoting conspiracy theories. When the tide turned, the dissensus developed into a broader counterforce, and the gate to conspiracy theories was widened rather than narrowed. The rhetoric of hope expressed by health authorities, primarily the minister of health, did not match the experience of the people, which led to frustration.

In understanding the rhetorical practices of authorities on social media, this must be considered in context (Kock & Villadsen, 2017), both in light of the Covid-19 pandemic and vaccine situation, as well as the ongoing civic discourse. During the pandemic management, the health authorities' input was challenged, but proved to be functional while a solution was in sight and hope dominated. In the face of dissensus and people contesting their statements, the Norwegian Institute of Public Health stayed true to its role as fact-provider and patiently answered most questions, whereas the minister of health persistently underlined an inherent norm of Norwegian society to contribute to the common good in his rhetoric. At the same time, he appeared to recognise the shift in sentiment in February–March 2021, whereby his rhetoric became more adamant and less invitational, and he still did not engage in dialogue with those who expressed dissent. The prime minister took a middle road by patiently answering some of those who expressed dissent, but to those who crossed the line of what is deemed appropriate criticism, her answers were quite direct in return.

Furthermore, the normative aspect of rhetorical citizenship draws our attention to whether practical rhetoric privileges or excludes actors, and whether the rhetoric furthers constructive civic interactions or stops the debate (Kock

& Villadsen, 2012). By presenting the vaccines as the only factor that would bring life back to normal, Høie excluded citizens who were sceptical or fearful of vaccines. Although he did not stop the debate, many were left with a sense of exclusion from society. On the other hand, by engaging in the discourse, the Norwegian Institute of Public Health arguably furthered civic interactions and made the debate more informed. From a rhetorical citizenship perspective, the institute, with its presence and by responding to all questions in an inclusive manner on Facebook, empowered citizens with its rhetorical practices.

In sum, the analysed Covid-19 vaccine discourse displays a large degree of dissensus, something we should welcome in a democracy. At the same time, it is important to avoid *unproductive* dissensus. As highlighted by Kock and Villadsen (2017: 574), it concerns the challenge of “communicating politically without an exclusionary aim of total consensus or a reduction of difference to total otherness”. The spread of conspiracy theories arguably distorts the civic discourse and is unproductive for deliberating societal issues. This illuminates the Janus face of social media – as platforms that allow more citizens a say in political discourse, while also easing the spread of misinformation and conspiracy theories. In the context of the societal crisis of the Covid-19 pandemic, the authorities persisted in their vaccination policies while facing the balancing act of handling dissensus without disconnecting people from the civic deliberation essential for democracy.

Conclusion

Crisis communication during the Covid-19 pandemic is a complex issue. The overall picture in Norway is that the Norwegian health authorities enjoy a high level of trust from the population, and that the openness and transparency of the authorities’ crisis communication have been important factors for successful Covid-19 crisis management (Norwegian Government, 2021). Our analysis of Facebook and Twitter provides a complementary view addressing the vaccine discourse on social media.

We set out to investigate the public’s perceptions and responses to the Norwegian health authorities’ handling of the crisis and the communication of public figures on social media. First, there has been a change over time and a shift in moods and arguments, going from scepticism, to optimism, to disappointment and critique. The empirical data show a pluralism of perceptions, where Facebook and Twitter users both support and contest information about Covid-19 vaccines. These perceptions must be understood in the context of a societal crisis, where the rapid development of the vaccines, the prospect of vaccines being the beginning of the end of the pandemic, and the subsequently slow vaccination administration process framed the discourse. Second, the concepts of elite rhetoric and vernacular discourse show how authorities confront

dissensus, as well as sense and attempt to bridge dissensus, during a crisis. The health authorities aim to reach through with what they present as an approach for the common good. This can be understood as a response to the ongoing public discourse and the context of the pandemic.

Our findings bear similarities to previous Nordic studies related to social media during Covid-19 and vaccine attitudes. First, the additional stress of a crisis like the Covid-19 pandemic leads to broad societal discourse on social media, including negotiations of what it entails to be a citizen. Second, in a situation marked by uncertainty, established expertise is questioned, and alternative expertise is promoted. Third, vaccine dissent contains similar arguments and expressions of concern across the Nordic countries.

The Covid-19 pandemic was a societal crisis, which is a state of emergency in which dissensus is inherent and characteristic of the dynamics of the crisis. The rhetorical situation is therefore urgent and precarious, and about convincing without creating unproductive, additional dissensus. Thus, although the conceptual framework of rhetorical citizenship is not explicitly aimed at the exceptional circumstances of a stressed society, it has proven useful in understanding the dynamics of how the situation on Facebook and Twitter unfolded.

From our analysis, we observe that the health authorities' rhetorical practices have been effective in many situations, but also that they were fragile to changes during the pandemic. It may therefore be asked whether this signifies a need for a rhetorical strategy that goes beyond rhetorical practice and that considers the situational context. In addition to managing the crisis per se, a supplementary objective may be proposed from a rhetorical citizenship perspective, that is, to handle dissensus constructively and to avoid frustrated citizens turning away from the public discourse (Kock & Villadsen, 2017). This resembles the distinction between managing a crisis as an event versus managing a crisis as a process (Williams et al., 2017), however, with the important distinction that in the Covid-19 crisis, the process entailed society as a whole, not solely the authorities. From this perspective, the strategy of the Norwegian Institute of Public Health to be clearly present on Facebook and to provide factual answers to questions from the public and address instances of misinformation by clarifying facts appears to be a productive strategy.

Our research indicates that rhetorical practices are an essential aspect of communication studies on crisis management that deserve to be investigated in other contexts. Furthermore, quantitative analyses supplementing the qualitative content analysis approach used in this study can add to our findings. Further investigations with network analysis may shed light on the exposure potential of Facebook and Twitter posts, to what degree the few actors who are spreading misinformation or conspiracy theories dominate the debate on vaccines, and lastly, whether they operate as an organised network. The degree of intentional spreading of disinformation compared with the more unintentional spreading of misinformation in the context of the vaccine debate could also be examined.

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References

- Agergaard, T. E., Smith, M. E., & Nielsen, K. H. (2020). Vaccine assemblages on three HPV vaccine-critical Facebook pages in Denmark from 2012 to 2019. *Media and Communication*, 8(2), 339–352. <https://doi.org/10.17645/mac.v8i2.2858>
- Breslin, S. D., Blok, A., Enggaard, T. R., Gårdhus, T., & Pedersen, M. A. (2022). “Affective publics”: Performing trust on Danish Twitter during the Covid-19 lockdown. *Current Anthropology*, 63(2), 211–218. <https://doi.org/10.1086/719645>
- Byström, E., Lindstrand, A., Bergström, J., Riesbeck, K., & Roth, A. (2020). Confidence in the national immunization program among parents in Sweden 2016 – A cross-sectional survey. *Vaccine*, 38(22), 3909–3917. <https://doi.org/10.1016/j.vaccine.2020.01.078>
- EEAS (European External Action Service). (2021, May 17). *Short assessment of narratives and disinformation around the Covid-19 pandemic (update December 2020–April 2021)*. https://www.eeas.europa.eu/delegations/georgia/eeas-special-report-update-short-assessment-narratives-and-disinformation-0_en
- Eimhjellen, I. (2018). New forms of civic engagement: Implications of social media on civic engagement and organization in Scandinavia. In L. S. Henriksen, K. Strømsnes, & L. Svedberg (Eds.), *Civic engagement in Scandinavia: Volunteering, informal help and giving in Denmark, Norway and Sweden* (pp. 135–152). Springer. https://doi.org/10.1007/978-3-319-98717-0_6
- European Commission. (2018). *A multi-dimensional approach to disinformation: Report of the independent high level group on fake news and online disinformation*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2759/739290>
- Faasse, K., Chatman, C. J., & Martin, L. R. (2016). A comparison of language use in pro- and anti-vaccination comments in response to a high profile Facebook post. *Vaccine*, 34(47), 5808–5814. <http://dx.doi.org/10.1016/j.vaccine.2016.09.029>
- Farkas, J., & Neumayer, C. (2020). Disguised propaganda from digital to social media. In J. Hunsinger, M. Allen, & L. Klastrup (Eds.), *Second international handbook of internet research* (pp. 707–723). Springer. https://doi.org/10.1007/978-94-024-1555-1_33
- Glasdam, S., & Stjernswärd, S. (2020). Information about the Covid-19 pandemic – A thematic analysis of different ways of perceiving true and untrue information. *Social Sciences & Humanities Open*, 2(1), 100090. <https://doi.org/10.1016/j.ssaho.2020.100090>
- Grøtan, T. O., Fiskvik, J., Haro, P. H., Auran, P. G., Mathisen, B. M., Karlsen, G. H., Magin, M., & Brandtzæg, P. B. (2020). *På leting etter utenlandsk informasjonspåvirkning: En analyse av det norske kommunestyre- og fylkestingsvalget 2019 [Tracing foreign influence on elections: An analysis of the local elections in Norway 2019]* (SINTEF report 2019:01292). SINTEF. <https://www.sintef.no/publikasjoner/publikasjon/1780464/>
- Hoff-Clausen, E., & Ihlen, Ø. (2015). The rhetorical citizenship of corporations in the digital age. In A. Adi, G. Grigore, & D. Crowther (Eds.), *Corporate social responsibility in the digital age* (pp. 25–45). Emerald Group. <https://doi.org/10.1108/S2043-052320150000007027>
- Høie, B. (2020, August 14). *Jeg vet at mange synes det er litt tungt nå. Ferien er over og sommeren går mot slutten. Winter is coming [I know a lot of people think it's a bit heavy right now. The holidays are over and summer is coming to an end. Winter is coming!]* [Status update]. Facebook. <https://m.facebook.com/BentHoie/photos/jeg-vet-at-mange-synes-det-er-litt-tungt-n%C3%A5-ferien-er-over-og-sommeren-g%C3%A5r-mot-s/1463113617214374/>

- Høie, B. (2021a, January 6). *I dag våknet vi til nyheten om rekordhøyt smittetall det siste døgnet. Det var denne utviklingen vi var bekymret for* [Today we woke up to the news of a record high number of infections in the last 24 hours. It was this development that we were concerned about] [Image attached] [Status update]. Facebook. <https://m.facebook.com/BentHoie/photos/a.146580072201075/1587167261475675/?type=3>
- Høie, B. (2021b, February 24). *Mange av dere har ventet på gode nyheter. I dag har jeg flere! Nå er det satt 400.000 vaksinedoser i Norge* [Many of you have been waiting for good news. Today I have more! 400,000 vaccine doses have now been administered in Norway] [Image attached] [Status update]. Facebook. <https://www.facebook.com/BentHoie/photos/a.146580072201075/1622931801232554/?type=3>
- Ihlen, Ø. (Head of Project). (2020, May 20). *Pandemic rhetoric, trust and social media*. Department of Media and Communication, University of Oslo. <https://www.hf.uio.no/imk/english/research/projects/pandemic-rhetoric-trust-and-social-media/index.html>
- Ipsos. (2021, April 23). *Ipsos SoMe-tracker Q1'21*. <https://www.ipsos.com/nb-no/ipsos-some-tracker-q121>
- Irwin, R. E. (2020). Misinformation and de-contextualization: International media reporting on Sweden and Covid-19. *Globalization and Health*, 16(1), 1–12. <https://doi.org/10.1186/s12992-020-00588-x>
- Kock, C., & Villadsen, L. (2012). Introduction: Citizenship as a rhetorical practice. In C. Kock, & L. Villadsen (Eds.), *Rhetorical citizenship and public deliberation* (Vol. 3) (pp. 1–10). Pennsylvania State University Press.
- Kock, C., & Villadsen, L. (2017). Rhetorical citizenship: Studying the discursive crafting and enactment of citizenship. *Citizenship Studies*, 21(5), 570–586. <https://doi.org/10.1080/13621025.2017.1316360>
- Lutz, C., Hoffmann, C., & Meckel, M. (2014). Beyond just politics: A systematic literature review of online participation. *First Monday Peer-Review Journal of the Internet*, 19(7), 1–36. <http://dx.doi.org/10.5210/fm.v19i7>
- Martela, F., Greve, B., Rothstein, B., & Saari, J. (2020). The Nordic exceptionalism: What explains why the Nordic countries are constantly among the happiest in the world. In J. F. Helliwell, R. Layard, J. D. Sachs, & J.-E. De Neve (Eds.), *World happiness report 2020* (pp. 129–145). Sustainable Development Solutions Network. <https://worldhappiness.report/ed/2020/>
- NIPH (Norwegian Institute of Public Health). (2020, December 4). *Hvem får tilbud om koronavaksine først, og hvorfor: <https://www.fhi.no/.../anbefaler-a-prioritere.../>. Uavhengig av hvor man havner i vaksinekoen så er det kanskje* [Who will be offered the corona vaccine first, and why: <https://www.fhi.no/.../anbefaler-a-prioritere.../>. Regardless of where you end up in the vaccination queue, it might be] [Video] [Status update]. Facebook. <https://www.facebook.com/folkehelseinstituttet.no/videos/vil-du-vite-mer-om-koronavaksiner/383653216049342/>
- NIPH (Norwegian Institute of Public Health). (2021, January 25). *De fleste sykehjemboere har nå fått vaksine. Grunnen til at disse har stått først i vaksinekoen, er at denne gruppen* [Most nursing home residents have now been vaccinated. The reason why these have been first in the vaccination queue is that this group] [Image attached] [Status update]. Facebook. <https://www.facebook.com/folkehelseinstituttet.no/photos/a.427080100692677/3801985586535428/?type=3>
- NIPH (Norwegian Institute of Public Health). (2022). *Folkehelseinstituttets plan for sosiale medier 2022–2023* [The Norwegian Institute of Public Health's plan for social media 2022–2023] [Internal document provided to one of the authors by a NIPH employee during an interview].
- Norwegian Government. (2021). NOU 2021:6. *Myndighetenes håndtering av koronapandemien: Rapport fra Koronakommisjonen* [The authorities' handling of the Covid-19 pandemic: Report by the coronavirus commission]. <https://www.regjeringen.no/no/dokumenter/nou-2021-6/id2844388/>
- Norwegian Ministry of Health and Care Services. (2012). *Melding til Stortinget: Beredskap mot pandemisk influensa* [Message to the parliament: Preparedness against influenza pandemic]. <https://www.regjeringen.no/no/dokumenter/meld-st-16-20122013/id716183/>

- Nurmi, J., & Harman, B. (2020). Why do parents refuse childhood vaccination? Reasons reported in Finland. *Scandinavian Journal of Public Health*, 50(4), 490–496. <https://doi.org/10.1177/14034948211004323>
- PST (The Norwegian Police Security Service). (2022). *National threat assessment for 2022*. <https://pst.no/alle-artikler/trusselvurderinger/ntv-2022/>
- Pummerer, L., Böhm, R., Lilleholt, L., Winter, K., Zettler, I., & Sassenberg, K. (2020). Conspiracy theories and their societal effects during the Covid-19 pandemic. *Social Psychological and Personality Science*, 13(1), 49–59. <http://dx.doi.org/10.1177/19485506211000217>
- Puri, N., Coomes, E. A., Haghbayan, H., & Gunaratne, K. (2020). Social media and vaccine hesitancy: New updates for the era of Covid-19 and globalized infectious diseases. *Human Vaccines & Immunotherapeutics*, 16(11), 2586–2593. <https://doi.org/10.1080/21645515.2020.1780846>
- Schia, N. N., & Gjesvik, L. (2020). Hacking democracy: Managing influence campaigns and disinformation in the digital age. *Journal of Cyber Policy*, 5(3), 413–428. <https://doi.org/10.1080/23738871.2020.1820060>
- Solberg, E. [@erna_solberg]. (2020, December 27). *Vi venter på første vaksine [We are waiting for the first vaccine]* [Image attached] [Tweet]. Twitter. https://twitter.com/erna_solberg/status/1343147700922015744
- Stjernswärd, S., Ivert, A.-K., & Glasdam, S. (2021). Perceptions and effects of Covid-19 related information in Denmark and Sweden – A web-based survey about Covid-19 and social media. *Journal of Public Health*, 1–15. <https://doi.org/10.1007/s10389-021-01539-5>
- van Dijck, J., & Alinejad, D. (2020). Social media and trust in scientific expertise: Debating the Covid-19 pandemic in the Netherlands. *Social Media + Society*, 6(4), 1–11. <https://doi.org/10.1177/2056305120981057>
- Välvirronen, E., Laaksonen, S.-M., Jauho, M., & Jallinoja, P. (2020). Liberalists and data-solutionists: Redefining expertise in Twitter debates on coronavirus in Finland. *Journal of Science Communication*, 19(05), A10. <https://doi.org/10.22323/2.19050210>
- WHO (World Health Organization). (2019). *Ten threats to global health in 2019*. <https://www.who.int/news-room/spotlight/ten-threats-to-global-health-in-2019>
- WHO (World Health Organization). (2020). *Novel Coronavirus(2019-nCoV): Situation Report – 13*. <https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200202-sitrep-13-ncov-v3.pdf>
- Williams, T. A., Gruber, D. A., Sutcliffe, K. M., Shepherd, D. A., & Zhao, E. Y. (2017). Organizational response to adversity: Fusing crisis management and resilience research streams. *Academy of Management Annals* 2017, 11(2), 733–769. <https://doi.org/10.5465/annals.2015.0134>
- Woolley, S. C., & Howard, P. (2017). *Computational propaganda worldwide: Executive summary* (Working paper No. 2017.11). University of Oxford. <https://demtech.oii.ox.ac.uk/research/posts/computational-propaganda-worldwide-executive-summary/>