VOICES IN THE ARENA

A Participation-Centred Study of Multivocal Risk and Crisis Communication on Social Media

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Communication on Social Media

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For my family

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1. INTRODUCTION

At the time this text is being written, in the spring of 2023, the world is still in a gradual recovery after the COVID-19 pandemic, one of the most significant global public health challenges in human history. Over 6.4 million people died, and millions have experienced long-term health-related consequences due to COVID-19, as well as mental health issues in the aftermath of the lockdowns and other restrictions (2022b). The pandemic also had a significant effect globally on the economy, transportation, logistic chains, and tourism, as well as other spheres. Moreover, it highlighted the continued vulnerability of humans and modern societies to diseases. On the other hand, it also demonstrated that joint efforts worldwide in the scientific community made it possible to develop, test, and deliver effectively in an exceedingly short time (Druedahl, Minssen, & Price, 2021). Furthermore, it was an extensive reminder that communication efforts play a crucial role in saving human lives, mitigating damage, and fostering fruitful collaboration between all the parties involved in crisis management (Croucher & Diers-Lawson, 2023; Sellnow & Seeger, 2021). For years to come, people will still remember the massive instructional crisis communication on social distancing (see Figure 1), face masks and handwashing.

Figure 1. A Swedish COVID-19 communication campaign poster which reads: "It is not over. Hold on and keep your distance". (Folkhälsomyndigheten, 2023).

Contemporary society is described as a risk society (Beck, 1992), where the production and distribution of prosperity are interlinked with the production and distribution of risks that can manifest themselves and turn into crises (Sellnow & Seeger, 2021). Risks and crises come in all shapes and sizes. Consequently, scholars develop various typologies capturing these phenomena with different degrees of abstraction and specificity (Quarantelli, 2000). For instance, one frequently used typology distinguishes crises based on the affected areas, such as economic, political, industrial, and public health crises (Boin & Lagadec, 2000). There is also a distinction between essentialist and social constructivist approaches. The former aims to identify key objective characteristics of risks and crises. In contrast, the latter approach highlights the role of stakeholders and audiences in interpreting risks and crises and communicating about these issues (Frandsen & Johansen, 2016).

Modern-day crises differ from those that happened merely a few decades ago: how they erupt, develop, get managed, and are communicated. As a point of

departure, the communication of the nuclear disaster at Chernobyl in 1986 will be examined[1].

In the early morning of April 26, reactor number four of the Soviet Chernobyl Atomic Energy Station exploded, sending a vast radioactive cloud into the air, and resulting in one of the biggest nuclear catastrophes in history.

One of the most significant characteristics of the crisis was the failings in the immediate crisis management of the disaster, particularly concerning the information void that occurred (Renn, 1990). As the responsible officials remained silent, an avalanche of rumours spread to the city of Pripyat, which was serving the nuclear plant. It was only on April 28, 1986, after exceedingly high levels of radiation had been detected in Sweden at the Forsmark nuclear plant, over 1,000 kilometres away from Chernobyl, that the Soviet government was forced to gradually release some information about the scope of the disaster (European Parliament, 2014; Vitkovskaya, 2016). This secrecy and the withholding of vital information from the general public affected the health and well-being of thousands of people in the vicinity immediately and for many years to come (Higginbotham, 2019).

The 1986 Chernobyl nuclear disaster is thus an example of how a devastating catastrophe was communicated, or more accurately, not communicated, in the past. Notably, the study of crisis communication was neglected for a long time before this, to the point that it was only established as an independent research area after the Chernobyl disaster (Nohrstedt & Tassew, 1993).

Figure 2. The image of the half-destroyed Chernobyl plant shown on Soviet television on April 30th, 1986. Source AFP/Getty images.

The 1986 Chernobyl catastrophe occurred in a media and communication environment that differed notably from today. Then, crisis communication was utterly dependent on official sources choosing to withhold or release information. Today, social media platforms allow eyewitnesses to immediately upload their stories, pictures, and videos of events. Laypeople, "formerly known as the audience" (J. Rosen, 2006), are thus able to create, maintain, and share their own crisis narrative(s), which exist alongside official information and media reports. Altogether, they make a complex and multivocal communication.

It should nonetheless be noted that despite the participatory potential of social media, the gatekeeping power of official sources of information remains. The strict

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[1] It is worth noting that public interest in this disaster has recently been renewed by the HBO historical series re-telling the development of this crisis.

information control enforced by the Chinese authorities at the beginning and during the COVID-19 pandemic, particularly their efforts to impose censorship on social media, serve as a reminder. Moreover, the COVID-19 pandemic served as a pretext to restrict information access and monopolise the information flow in many other countries, including some Western democracies (A. Richter, 2021).

Traditional theoretical and practical approaches to risk and crisis communication (hereafter, RCC) have focused primarily on organisations and institutional actors. However, RCC increasingly occurs online. The landscape of social media and digital communication continues to evolve and requires a rejuvenation of the research agenda (Austin & Jin, 2022). Social media affects RCC in three ways: (i) it provides a communication channel that allows authorities and organisations to directly communicate with target audiences and bypass gatekeepers in the news media; (ii) it acts as a data source that allows both organisations and laypeople to access communication activities and gather feedback; and (iii) it functions as a tool that avails itself to new actors, including lay social media users[2], to create and share content. This dissertation will focus on the third role of social media in RCC.

Social media platforms are vital in fostering user participation and making it publicly visible to others. Moreover, research shows that user comments on journalist-produced content shared on social media can be seen as an integral part of the overall story (Barnes, 2015). User-generated content joins communicative contributions from authorities, organisations, and the news media to become part of a meta-narrative (Venette, Sellnow, & Lang, 2003).

Traditional theoretical RCC scholarship, however, does not account for the growing multivocality of RCC in social media (Jin & Austin, 2021). Thus, this dissertation will draw on an approach that aims to fill this gap in the literature, the Rhetorical Arena Theory (RAT). Developed by Frandsen and Johansen (2005, 2016), the conceptual framework of the RAT allows for the broader multivocal rhetorical arena of risk and crisis communication composed of participation by various actors to be considered, including those made by lay social media users. The primary aim of this dissertation is thus

to explore the multivocality of risk and crisis communication from the perspective of lay social media users' participation.

The insights that this will provide could be valuable for:
(i)   the field of risk and crisis communication research at large, in mapping the content, motivations, and other characteristics of the lay online participation in the context of multivocal RCC.

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[2] Lay social media users in this dissertation refer to individuals acting and communicating on social media in the capacity of private persons and not representing organisations, authorities, or other institutions.

(ii)   institutional actors, as a participation-centred approach could ultimately help to direct more effective and efficient planning and implementation of their communication activities before, during, and after a crisis (Jin & Austin, 2021).

(iii)   last but not least, lay social media users, allowing them to navigate the abundance of risk and crisis information on social media, including the information provided by their fellow users, more securely.

The dissertation will be structured as follows: First, the core theoretical concepts of risk and crisis, and risk and crisis communication will be outlined and clarified in Chapter 2. Subsequently, current audience-oriented approaches to risk and crisis communication (Chapter 3), as well as the central theoretical framework of the dissertation, the Rhetorical Arena theory (RAT), will be reviewed (Chapter 4). Then, the contextual background (Chapter 5), methods, materials, and ethical considerations (Chapter 6) will be presented and discussed. This will then be followed by an overview of three constitutive sub-studies (Chapter 7). Finally, the main theoretical results and practical implications will be considered in a broader discussion of risk and crisis communication research (Chapter 8). The Swedish summary of the dissertation is provided in Chapter 9.

2. THE CONCEPTUAL FRAMEWORK

Risks and crises are an inevitable part of the modern world. "Risk" and "crisis" are frequently used in everyday communication. Risk encompasses individuals, organisations, and society and usually refers to something that can go wrong. For example, there is the risk of lung cancer due to smoking, tsunamis in coastal areas, and traffic issues due to snowy weather in winter. In turn, when something goes wrong and causes substantial problems, it is often called a crisis. The distinction between risk and crisis is straightforward for crises with a specific trigger event, such as a bomb explosion or a traffic accident. In contrast, the line between the two is more blurred when it comes to latent, slow-burning situations which take months or even years to develop into large-scale emergencies. For instance, public health crises often have incubation periods of varying lengths. In these situations, the intuitive understanding of the concepts of risk and crisis does not provide a clear answer to when a risk turns into a crisis.

Indeed, the task of distinguishing risk from crisis is complicated. Traditionally, these concepts have been primarily employed in different research fields and thus seldom juxtaposed. This chapter aims to bring the definitions together and determine the key characteristics of risks and crises and related communication in the context of this dissertation.

2.1. Risk and Crisis: The Intertwined Concepts

The concept of risk is broadly defined as "things, forces, or circumstances that pose a danger to people or to what they value" (Stern & Fineberg, 1996, p. 215). Risks are often conceived of in terms of probabilistic assessments, the likelihood of a threat, and its impact and magnitude (Douglas, 1990). Risk analysts thus rigorously work to foresee, plan for, and prevent various environmental, technological, socio-political, medical, and other threats and estimate their probability of affecting specific groups of people, organisations, or institutions in different places.

For instance, certain geographical areas are more prone to earthquakes or hurricanes and, thus, require risk assessment and adapted policies for infrastructure and construction (Guikema, 2009). Another example is immunisation. Public health programs primarily focus on reducing or eliminating the risks caused by various infectious diseases through vaccines (Greenwood, 2014).

In turn, a crisis is a manifested risk (Heath, 1995) where the potential danger becomes real and poses an immediate threat. The crisis stems from the Greek word κρίνω, "to shift" or "to decide". In Ancient Greek medicine, it signified the decisive point of an illness (O'Connor, 1981). However, the concept was relatively forgotten for several centuries until social scientists borrowed this medical metaphor to describe situations threatening the survival of economic, political, social, and cultural systems (Shrivastava, 1993). Since then, the concept of crisis has been widely employed in various fields.

Noteworthy, risks and crises are tightly intertwined and thus oftentimes exist in a continuum with varying degrees of danger. For instance, a potential or distant threat (a risk) can become real and consequently create tangible or immediate danger (a crisis) for members of the public[3]. This may lead (although not necessarily) to an acute crisis phase. Later, when the emergency is contained, and the threat level decreases, it may be classified as a risk factor again[4].

The interconnectedness between risks and crises is especially prominent in public health. For example, the pathogen causing Ebola exists worldwide, meaning there is always the risk of contracting Ebola. The situation may, however, gradually or suddenly develop into an outbreak that further grows and affects several countries and regions. For example, in 2014, an Ebola virus outbreak started in Guinea and rapidly spread to other countries in West Africa and a few cases were identified in the U.S. and Europe (Elston, Cartwright, Ndumbi, & Wright, 2017). In contrast, in some countries, like Sweden, there were only suspected cases of Ebola, which in the end were not confirmed. As a result, the Ebola outbreak there largely remained a risk and never amounted to a crisis.

2.2. Communication in Risk and Crisis Situations

Communication plays an essential role in managing risks and crises, as risks and crises at their core are defined, negotiated, and shaped through communication (Boin, Hart, Stern, & Sundelius, 2005; Rasmussen & Ihlen, 2017).

Risk communication refers to the exchange of information among individuals, groups, and institutions related to the assessment, characterisation, and management of risk (McComas, 2006). In turn, crisis communication, as defined by Sellnow and Seeger (2021), is ongoing communication among and between groups, communities, individuals, and agencies within the context of a crisis, to prepare for and reduce, limit, and respond to threats and harm.

Fundamentally, both concepts focus on a communicative exchange between various actors in the contexts of risk and crisis (Rogers & Pearce, 2016). However, there are nuances. Risk communication is primarily structured around known potential dangers, their negative consequences, and strategies for reducing or avoiding them. For example, anti-smoking campaigns push for adding graphic warning labels to cigarette packaging (Romer et al., 2018). In comparison, crisis communication is centred around a manifested risk that has evolved into a specific situation perceived as a crisis[5]. It thus focuses on development, causes, consequences, and blame, among

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[3] Admittedly, the spatial and temporal proximity of danger varies even in crisis situations.
[4] It is also possible that the threat will be eliminated completely or temporarily. One example is smallpox, a life-threatening viral disease, which existed for thousands of years and killed over 300 million people since 1900 alone, was declared eradicated by the World Health Organisation in 1980 after an intense programme of immunisation of the world's population (Henderson, 2011).
[5] It can be both a known and unknown danger. An example of the former is a volcano eruption, while an example of the latter is a terrorist attack. While it is possible to estimate the risk probability of the

other issues (Seeger & Reynolds, 2008). An example of this is the long-lasting COVID-19 pandemic. It required extensive communication between numerous actors dealing with the novel virus, such as protective measures like vaccinations.

Risk communication thus usually involves frequent, routine, and long-term communication, whereas crisis communication is infrequent, non-routine, and often relatively brief[6] (Rogers & Pearce, 2016). The concept of risk communication is often employed in public health, psychology, and management studies, whereas crisis communication is utilised in strategic communication and public relations (Reynolds & Seeger, 2005). Traditionally, the role of crisis communication has been "to strategically defend and explain the organisation's position in the face of crisis, induced criticism, threat, and uncertainty" (Reynolds & Seeger, 2005, p. 46). As a result, the spotlight has been on response strategies and reputation management (Freberg & Palenchar, 2013), and establishing the overall organisation-centred focus of crisis communication theories (Jin & Austin, 2021).

In recent years, the focus has been on merging key concepts and practical toolboxes from both risk and crisis communication to design comprehensive communication frameworks (Seeger & Seeger, 2023). Such frameworks can be especially suitable for public health emergencies, which deal with common and well-understood threats as well as novel, non-routine, and poorly understood ones (Seeger & Reynolds, 2008). The most notable recent examples of such integrative approaches are Crisis and Emergency Risk Communication proposed by the Centers for Disease Control and Prevention in the United States (Reynolds, Hunter Galdo, & Sokler, 2002) and the World Health Organisation (WHO) principles for effective communication (WHO, 2020). These approaches aim at providing guidelines for communication practitioners. However, they primarily focus on organisations and decision-makers, thus, unable to overcome the notorious managerial bias in the RCC context, which has been frequently criticised (Hargie & Irving, 2016; Schwarz, 2012). Moreover, this overwhelming focus on those responsible for managing the crisis comes at the expense of other voices largely absent in crisis communication literature (Waymer & Heath, 2007). Consequently, researchers have repeatedly called for greater attention to those affected by crises (Lee, 2004; Liu & Fraustino, 2014; Schwarz, Seeger, & Auer, 2016).

2.3.   *Towards an Audience Perspective*

There are two meta-theoretical perspectives to studying of risk and crisis: the essentialist and social constructivist approaches. The essentialist approach infers that it is possible to identify and define risk and crisis based on a range of objective traits

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former and make specific preparations for such an event, with the latter it is almost impossible to predict when, where, or how the crisis will occur.

[6] The duration of the communication is not always a suitable measure to delineate risk communication from crisis communication, as the duration and magnitude of crises often varies significantly. While there are many crises that only last for days or even hours (e.g., terrorist attacks), there are also crises that last for years (e.g., the COVID-19 pandemic) or even decades (e.g., the climate crisis). Consequently, the required length of communication activities can also vary accordingly.

(Frandsen & Johansen, 2016). In turn, the social constructivist approach suggests that risk and crisis are social constructs based on interpretations and negotiations by multiple audiences (Heide, 2009; Iannacone, 2021). It does not mean that risks or crises per se do not exist, but it shifts the focus from physical manifestations to interpretations (Frandsen & Johansen, 2016). When certain things and situations are perceived as risks and crises, it affects how people are likely to behave. This applies to information seeking (Westlund & Ghersetti, 2015; Xu & Margolin, 2023), secondary communication between people (Leung, Wu, & Sun, 2023; Schultz, Utz, & Goeritz, 2011), public trust in authorities and other institutions (Bengtsson & Brommesson, 2022; Siegrist & Zingg, 2014), and willingness to comply with imposed recommendations (Kritzinger et al., 2021).

The essentialist approach is centred around situations and their characteristics and can provide an unambiguous answer to whether there is currently a crisis (Frandsen & Johansen, 2016). In turn, the social constructivist approach highlights the central role of the audiences and their risk and crisis perception. For example, there are often differences in what people consider to be a risk or not a risk. This varies in time and space: what is regarded as a risk in a given era and place may no longer be seen as a risk later on or in a different location (Tulloch & Lupton, 2003) or another cultural context (Douglas & Wildavsky, 1982). Similar processes apply to crises: stakeholders[7] and audiences perceive a particular event, behaviour, or process and decide whether it is considered a crisis (Schwarz et al., 2016) and, thus, co-create its meaning (Coombs, 2011).

The objective assessment of the situation is based on the essentialist approach. However, the perceived situation may look different from the audience's perspective: a potential or distant threat (a risk) can be interpreted as immediate and lead to corresponding behaviour. In contrast, tangible or immediate danger (a crisis) can be overlooked or interpreted as not threatening and, therefore, not leading to the perception of an emergency. Revisiting the example of the 2014-15 Ebola outbreak, the research demonstrates that the perceptions of the public varied: some perceived higher levels of a threat compared to the official assessment (Majid, Wasim, Bakshi, & Truong, 2020; Winters, 2021).

The social constructivist approach emphasises a multivocal perspective that accounts for the dynamic and complexity of communication processes among many senders and receivers. Individual-level risk and crisis interpretations may vary across audiences and are contingent upon personal and external factors, such as, education, professional background, and emergency experience (Frandsen & Johansen, 2016; Helsloot & Ruitenberg, 2004). Finally, there are also shared social interpretations of

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[7] The concept of "stakeholders" is widely used in management literature and corporate communication and refers to people or groups "with a stake (interest) in subject activity" (McGrath & Whitty, 2017, p. 730). The subject can entail, for example, an organisation, a person (e.g., a politician), or an event. Examples of stakeholders include customers, employees, suppliers, competitors, investors, politicians, government representatives, etc. However, the concept is heavily criticised for several reasons, including being reductionistic and ignoring the public sphere (Ihlen, 2008) and audiences (Wakefield & Knighton, 2019).

risks and crises (Billings, Milburn, & Schaalman, 1980) which can be strengthened or reduced by media attention or inattention (Pigeon, Kasperson, & Slovic, 2003).

This dissertation explores lay participation in risk and crisis communication, which requires a social constructivist approach. The following chapter will examine theoretical frameworks that focus on active audiences and their participation in risk and crisis communication.
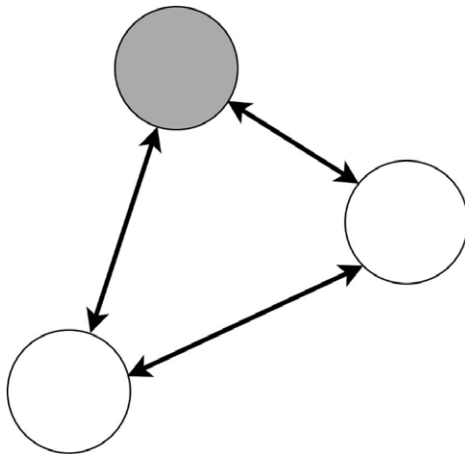
3. ACTIVE AUDIENCES AND PARTICIPATION IN RISK AND CRISIS COMMUNICATION

The term "active audiences" has been chosen to bring attention to the accelerated transformation of audiences in the ever-changing media and communication environment. Indeed, audience participation in content creation was possible long before social media, in the forms of letters to editors and radio and TV call-ins, for example. However, they were subjected to editorial gatekeeping. Social media lowers the participation threshold (Jenkins, Ford, & Green, 2013) and allows more people to participate with less effort. In the dissertation, social media refer to Internet-based networked platforms where people can consume, create and interact with content as well as interact with each other.

The broader participation changes the roles of people "formerly known as the audiences" (J. Rosen, 2006) in risk and crisis communication. Previously, audiences were conceived as passive and individualised, and they were contrasted to the public – active, critically engaged, and politically significant (Livingstone, 2005). Also, the concepts are often used in different fields: audiences in media studies and psychology, while public – in political studies and sociology. Digital development has blurred the lines of demarcation between audiences and the public, which have become more tangled conceptually. However, disentangling the audiences from the public is beyond the scope of the current work. Instead, the analysis will focus on specific characteristics of people or groups and their communication activities, as have been suggested by Livingstone and Das (2013).

Participation (from the Latin *participat-,* "shared in") is a multidimensional concept that broadly refers to the act of taking part in an activity or event (Cambridge, 2023). This concept is closely connected to engagement, which is a broader concept that encompasses cognitive (i.e., attention, processing, understanding), affective (i.e., emotional response), and behavioural dimensions (i.e., participation, collaboration, action) (Johnston, 2018). Dahlgren and Hill (2020) highlight the connection between these concepts and state that participation manifests engagement in observable behaviour. This dissertation investigates communicative activities performed by laypeople on social media, which would be best described conceptually as participation and, more specifically, as online participation, which has developed as a distinct type of participation following the development of media and communication technologies (Oser, Hooghe, & Marien, 2013).

One example of groups involved in early online participation is fan communities[8], which were among the first to embrace new technologies for creative expression and production (e.g., fan fiction writing) (Jenkins, 1992). As both user practices and media platforms have evolved, the scope of online participation has

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[8] The term refers to communities that are built around a mutual interest and enjoyment in an aspect of popular culture, e.g., books, movies, TV shows, games, music bands, sports, or sport teams (Jenkins, 2006b).

broadened. Nowadays, audiences are shaping, sharing, re-framing, and re-mixing media content in ways not previously imagined (Jenkins et al., 2013). Such contributions thus may challenge narratives, lead to greater exposure of particular views, and influence public discourse and opinion. These changes consequently require novel approaches to risk and crisis communication.

3.1. The Co-Creation of Meaning

A review of the existing literature indicates that at least three approaches offer a greater focus on active audiences and how their agency affects and/or shapes risk and crisis communication. Although the dissertation uses the term audiences, other studies may apply other terms. Therefore, the research review will utilise the preferred terms.

Fraustino and Liu (2017) have highlighted one possible approach which draws on the co-creational perspective of communication and public relations (Botan & Taylor, 2004). This approach is grounded in the transition from functional to co-creational communication activity, which treats audiences as co-creators of shared meanings and interpretations. Furthermore, it focuses on relationship building between different parties and how the recipients' thoughts, feelings, and behaviours can be considered in this communication (Fraustino & Fisher Liu, 2017). It thus moves away from an organisation's image-related concerns and towards a greater focus on relationship-building with those receiving crisis information.

A crisis creates confusion and precipitates a meaning deficit due to high uncertainty (Seeger & Sellnow, 2016). With this approach, communication becomes a constitutive process for producing a mutual understanding of reality (Heide, 2009), and it is analysed as a "sensemaking" process (Falkheimer & Heide, 2006). The concept of sensemaking, introduced by Karl E. Weick (1993), refers to bracketing and interpreting cues given by the physical environment, external information, and actions. In an RCC context, people's understanding continuously moves between accepted knowledge and input of new information. This changes in what is accepted as knowledge and how a person should act or react (Vigsø & Odén, 2016).

Although this perspective focuses more on audiences, it does not account for audience participation in content creation and sharing. Instead, this approach has been utilised to strengthen organisational communication by providing valuable insights into how individuals understand and react to risk and crises (Lee, 2004).

3.2. Citizens' Rights and Needs

While this first approach is centred around organisations and their interests and strategic goals, other approaches have challenged this view and instead seek to draw attention to the needs and interests of the audiences. Grunig (2013), for example, has argued that two-way symmetrical communication is the most ethical and socially responsible communication model. This approach attempts to create a mutually beneficial situation that aligns the interests of institutional actors and audiences

(Hyvärinen & Vos, 2016). In the same vein, Heath (2006) has argued that the future of communications lies in shifting the focus to the good of society rather than the good of the communicator.

In the context of RCC, a group of Swedish crisis communication scholars have proposed an approach that places citizens' rights and justice at the centre of communication, for example. The Citizen Crisis Communication (CCC) model assumes that communication is essential for citizens' capability and resources to handle and process difficulties at different phases of a crisis. The model identifies three ways in which good crisis communication can enhance those capabilities: (i) access to relevant, trustworthy, and intelligible information about the crisis and relevant measures needed to handle an acute crisis (i.e., coping or survival capability); (ii) the responsibility is communicated and externally assessed (i.e., accountability or democratic capability); and (iii) communicative tools and support for processing crisis experiences (i.e., resilience or social capability) (Odén, Djerf-Pierre, Ghersetti, & Johansson, 2016).

The CCC model also stresses that, from a citizens' perspective, it is not important who provides the information as long as it is provided (Johansson, Ihlen, Lindholm, & Blach-Ørsten, 2023, p. 21). Communication via social media can thus either complement or replace institutional communication in this respect (Odén et al., 2016). The information can also come from multiple sources, such as organisations, authorities, the news media, social media, family, friends, and unknown people. The central idea is that all pieces of information are combined to produce a broader understanding of the situation and what is needed to deal with a crisis.

3.3.   The Co-Creation of Communication

The growth and omnipresence of social media in the last few decades have led to the development of new approaches that attempt to find novel ways of integrating the communicative behaviour of audiences on social media into RCC. Botan and Taylor (2004), for example, have emphasised the need for a paradigm shift in strategic communications in order to demonstrate a genuine interest in how the public creates and shares meaningful messages about different issues. One such approach is the Social-Mediated Crisis Communication (SMCC) model. The model was initially proposed as a response to the evolving blogosphere. It aimed to offer a tool for communication practitioners to monitor and respond, when appropriate, to influential bloggers during crises (Jin & Liu, 2010). Later, the model was expanded and further developed following the rise of social media platforms.

The SMCC model focuses on how organisations and the public co-create meaning in communications about crises through social-mediated relationships on- and offline. It outlines three primary groups: influential social media creators, social media followers, and people inactive on social media (Austin, Liu, & Jin, 2012). Influential social media creators refer to individuals who understand the importance of crises and talk about crises online. By doing so, they can influence social media followers online directly. Also, they can indirectly influence people inactive on social

media via interpersonal channels of communication (Jin & Austin, 2021). Social media influencers thus communicate to a large audience (cf. mass self-communication in Castells, 2009). Moreover, they are an attractive channel for strategic communication because other users see them as personal, authentic, credible, and down-to-earth sources of information (Harrigan et al., 2021; Schouten, Janssen, & Verspaget, 2020). The impact of endorsements by influencers in shaping communication on social media platforms has consequently led national governments worldwide to set up legal regulations for such users (Abidin et al., 2020; Goanta & Ranchordás, 2020).

The development of the SMCC model has provided the framework for empirical tests on how information forms, sources, message characteristics, and context impact the public's cognitive, behavioural, affective, and intended communicative behaviour during crises (Austin et al., 2012; Jin, Fraustino, & Liu, 2016; Liu, Austin, & Jin, 2011; Liu, Fraustino, & Jin, 2015). At the same time, however, the SMCC model strongly focuses on organisations (Jin & Austin, 2021) and social media influencers rather than on lay social media users. RCC researchers are therefore increasingly calling for the development of a crisis communication theory that focuses on how the public communicates with each other about risks and crises ("public-public" crisis communication (Fraustino & Fisher Liu, 2017)), rather than just with organisations (Liu et al., 2015).

4. MULTIVOCAL RISK AND CRISIS COMMUNICATION: THE RHETORICAL ARENA THEORY

The search for an approach that could account for the participation of many different active audiences in risk and crisis communication has led to the theoretical approach to risk and crisis communication developed by the Danish communication scholars Finn Frandsen and Winni Johansen. The Rhetorical Arena Theory (RAT) has been proposed as an alternative to strategic crisis communication theories and thus offers a multivocal approach to risk and crisis discourses. The RAT looks beyond crisis response strategies by focusing on the broader "patterns of interactions" between various contributors (Frandsen & Johansen, 2016, p. 148). This chapter will provide a general overview of the RAT and its core assumptions. It will also suggest possible directions for expanding this theory and how these propositions will inform the studies composing this dissertation.

4.1. The Core Concepts: "Rhetorical Arena" and "Voice"

A "rhetorical arena" is a social space that opens up during a crisis in which multiple voices communicate to, with, against, or about each other (Johansen & Frandsen, 2007). These voices may come from different actors, including organisations, authorities, politicians, activists, experts, the media, and lay people. In its essence, the RAT aims "to identify, describe, and explain multiple communicative processes inside the arena" (Frandsen & Johansen, 2016, p. 142). Thus, the RAT framework applies to all types of crises and allows for the analysis of communicative complexity by including a variety of actors.

Noteworthy, the rhetorical arena does not correspond to the public sphere. Instead, the RAT draws on the idea that the rhetorical arena expands beyond the traditional distinctions between what is public (e.g., the public sphere of the media), semi-public (e.g., networks) or private (e.g., within institutions or organisations, closed groups and interpersonal interactions) (Frandsen & Johansen, 2010). Indeed, the metaphor of the arena has inspired other RCC approaches, including the public arena of social problems model proposed by Hilgartner and Bosk (1988), the social arena of political risk debates offered by Renn (1992), and the issue arenas of stakeholders put forward by Luoma-Aho and Vos (2010) and Vos et al. (2014).

The RAT thus embraces the complexity and dynamics of risk and crisis communication which is a product of multiple senders, receivers, and corresponding communicative processes (Frandsen & Johansen, 2010). Compared with traditional research approaches, which often perceive both the sender and the receiver in the singular, the RAT approach accounts for the relationships and communication between multiple actors. An approximate visualisation of the rhetorical arena is presented in Figure 3.
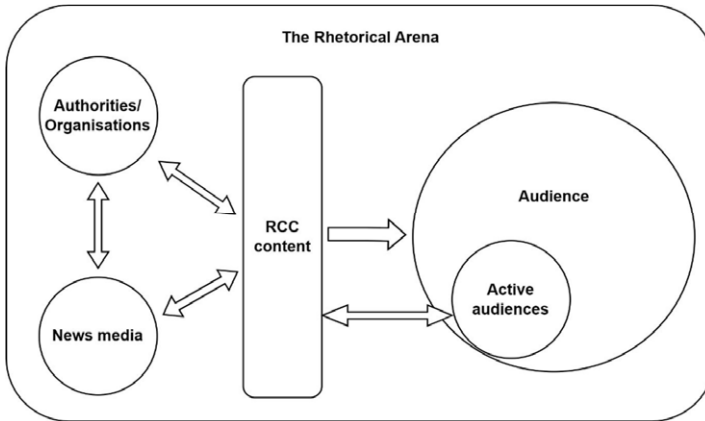
Figure 3. An illustration of a rhetorical arena.

Another central concept is "voice". This is utilised metaphorically and is defined as communicative contributions or interventions in a crisis, which are considered as such by the actors themselves or by other actors in the rhetorical arena (Frandsen & Johansen, 2010). The complexity of the rhetorical arena entails the co-existence of multiple voices, talking about the crisis from various standpoints shaped by involved actors' interests, worries, and goals. Indeed, previous research suggests that the dynamic between numerous voices in the crisis discourse can take different forms, such as the form of "a contest" or "a marketplace" (Heath, 2009, p. 23). Moreover, not all voices strive for consensus, making the RAT an agonistic model embracing the dissensus that may play out (Frandsen & Johansen, 2023). Moreover, different voices can communicate about numerous sub-topics composing a multi-layered rhetorical arena (Vigsø, 2023). In this way, the concept of voice echoes the idea of "heteroglossia" (Bakhtin, 1981), which generally refers to the dynamic co-existence of multiple voices or, more succinctly, multiple perspectives on the world.

For example, communication during the recent COVID-19 pandemic was extraordinarily complex and dynamic. During the onset of the pandemic, in December 2019-January 2020, the initial RCC consisted of official statements from the Chinese state authorities, situational reports from the WHO and risk evaluation by national public health authorities, as well as information from travel agencies, virologists, and epidemiologists and witness reports from China, all of which were either covered by the news media or spread on social media platforms. Multiple institutional and non-institutional actors contributed to the multivocal rhetorical arena; however, communicated about the novel coronavirus differently (MacKay, Colangeli, Gillis, McWhirter, & Papadopoulos, 2021).

4.2. The Macro and the Micro Perspectives

The RAT framework approaches crisis communication from two interrelated perspectives: macro and micro. The *macro perspective* considers all of the voices and the communicative processes that take place in the arena during a specific situation. It

focuses on patterns of interactions between the voices and actors that compose the arena and "bring the crisis into a mediated existence" (Hearit & Courtright, 2003, p. 87). The voices of these various actors can communicate to or about each other, with or against each other, or pass by one another (Frandsen & Johansen, 2016). For instance, a recent study utilised the RAT framework to analyse different actors communicating about the Volkswagen emission crisis (Raupp, 2019). The results draw attention to the domination of voices from a few high-ranked actors and the uneven distribution of power relationships. Another example is a study of the Telenor complaints crisis in Denmark; Frandsen and Johansen (2023) illustrate how the communication during this crisis was composed by different actors across several channels, including Danish news media, Facebook, and Twitter.

In comparison, the *micro perspective* of the RAT focuses more on analysing the characteristics of communicative contributions and processes of specific actors or voices in the rhetorical arena (Frandsen & Johansen, 2016). Following the classical communication model, the micro perspective includes three key elements (the sender, the receiver, and the communication content) and four parameters of communicative contributions (the context, the media, the genre, and the text). This perspective thus aims to provide a detailed account of different actors in the rhetorical arena who can have fluid roles as both senders and receivers. The RAT suggests that all senders and receivers are equipped with a set of basic competencies to interpret risk factors and crises, plan the strategy of their communicative behaviour, and communicate this verbally or non-verbally (Frandsen & Johansen, 2010).

The RAT, thus, provides an overarching heuristic framework and a valuable conceptual lens to approach the multivocality of risk and crisis communication. It is, however, a theory that is still in a formative stage, as some aspects still need to be clarified, revisited or expanded. For example, Raupp (2019) stresses that the RAT at this stage does not suggest a verifiable hypothesis. In the most recent publication, Frandsen and Johansen (2023) themselves call for more research and welcome contributions to theory-building and methodological challenges concerning the RAT.

4.3.   Research Questions

Originally, the research using the RAT framework focused on a broad and all-encompassing rhetorical arena (Frandsen & Johansen, 2005, 2010). However, since scholars will never be able to conduct an exhaustive analysis of all communication processes going on during a crisis, Coombs and Holladay (2014) proposed an additional unit of analysis, the concept of sub-arena. They suggested that the rhetorical arena comprises different sub-arenas: distinct social spaces delimited from the larger arena by physical, social, or symbolic boundaries. Breaking down a larger rhetorical arena into sub-arenas has proven useful, and it was welcomed and supported by the RAT's founders (Frandsen & Johansen, 2023).

One proposed method to delimit sub-arenas is the communication channel (Coombs & Holladay, 2014). For instance, a Facebook page of an organisation, a news media website, or a user-driven group on one of the various social media platforms

would all comprise different rhetorical sub-arenas. The empirical analysis of a crisis in The Livestrong Foundation (a charity to help people fighting cancer) shows that the rhetorical sub-arenas of corporate blogs and online news outlets are populated by distinct groups of people with different attitudes and, therefore, different reactions to the crisis and response efforts (Coombs & Holladay, 2014).

However, the situation is becoming increasingly complicated in social media. In contrast to traditional news media, social media platforms allow multiple independent content producers, such as organisations, authorities, and the news media but also lay social media users to participate in risk and crisis communication on the same communication channel. Previous research has looked into the presence and prominence of different institutional actors (Frandsen & Johansen, 2023; Raupp, 2019) and the crisis reactions on different sub-arenas (Coombs & Holladay, 2014). However, less is known about how such lay online participation affects the communicative processes and discourses in the rhetorical sub-arenas on social media.

This thus forms the first research question (RQ 1) of this dissertation:

In what ways does lay online participation contribute to the content of risk and crisis communication in different rhetorical sub-arenas on social media?

The micro perspective of the rhetorical arena brings the focus from broader patterns of interaction and communicative contributions to particular actors. The existing conceptual toolbox of the RAT focuses mainly on communicative contributions, their contextualisation and mediatisation. Regarding actors, the RAT does not go further than to suggest that they are equipped with basic competencies (Frandsen & Johansen, 2016). In the current state, the framework overlooks the factors that correspond to the motivations of different actors, that is, what triggers, drives, and maintains lay people's communicative behaviour on rhetorical sub-arenas. Motivations are one of the key parameters composing online participation (Dahlgren, 2011) and can be defined as the internal processes that activate, guide, and maintain human behaviour (Baron, 1991).

Previous research in an RCC context has focused primarily on social media use as a whole, including patterns of information-seeking and consumption during crises (Austin et al., 2012; Bal & Baruh, 2015; Brunce, Partidge, & Davis, 2012; Ghersetti & Westlund, 2016; Palen, 2008). However, the topic of online participation that entails content creation remains under-researched.

Motivations for online participation are contingent upon different ways social media is set up for such behaviour. All communication on social media occurs within the framework of affordances, which enables and restrains action possibilities on the platform (Faraj & Azad, 2012; Hutchby, 2001). This means that there are particular ways that social media establish to encourage social interactions and content creation. At the same time, its limitations can simultaneously push users to find creative ways to circumvent them.

Furthermore, there are settings available for users to manage the visibility of their content and build up spaces with open, limited, or restricted access for other users. These settings can also affect motivations for lay online participation. The

second research question (RQ 2) of this dissertation aims to explore this further by asking:

What characterises and affects motivations for lay online participation in multivocal risk and crisis communication?

Finally, the RAT implies that contextual factors and relationships between different actors shape communication in the rhetorical arena. However, some aspects have not yet been included in the framework. For instance, Palmieri and Musi (2020) suggest extending the RAT approach by looking at the role of trust. Indeed, previous research demonstrates that trust in institutions is essential in the perception of risk prevention, crisis management, behaviour, and communication (Cornia, Dressel, & Pfeil, 2014).

Despite the plethora of contesting definitions of trust and the theoretical diversity in trust research, scholars fundamentally agree that trust entails "the intention to accept vulnerability based on positive expectations of the intentions or behaviour of another" (Rousseau, Sitkin, Burt, & Camerer, 1998, p. 395). It has also been argued that trust stimulates and promotes the culture of participation (Newton, 2001) and thus serves as an antecedent for online participation and content production (Ardèvol-Abreu, Hooker, & Gil de Zúñiga, 2018; Moy, McCluskey, McCoy, & Spratt, 2004). Indeed, trust in institutions when dealing with risks and crises can lead to supportive communication on social media. For instance, research shows that in crises, some users can voluntarily become digital ambassadors supporting organisations (B. F. Johansen, Johansen, & Weckesser, 2016).

In contrast, a trust deficit can cause users to question and challenge official information. For example, the hostile media phenomenon (Vallone, Ross, & Lepper, 1985), where the news is perceived as biased, can push social media users to participate online to overcome untrustworthy news media's influence (Fletcher & Park, 2017). Thus, trust relationships can affect participation by lay social media users differently. In line with this, the third research question (RQ 3) of this dissertation asks:

In what ways does institutional trust affect lay participation in RCC on social media?

The following chapters will address and critically assess the contextual background (Chapter 5) and the methodology and ethical considerations of the sub-studies composing this dissertation (Chapter 6).
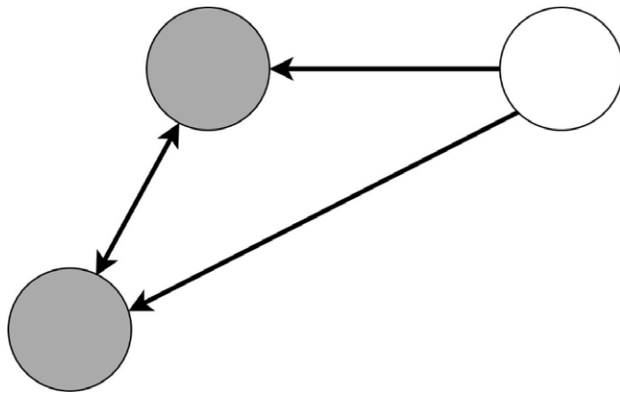
5. THE CONTEXTUAL BACKGROUND

The dissertation takes a context-specific approach to the study of RCC, which means that the study design focuses on RCC concerning a particular issue (Schwarz et al., 2016). The studies which comprise this dissertation were conducted in Sweden and were delimited to the context of public health. This chapter will thus take a closer analytical look at how this contextual background affects the studies in question and the generalisability of their results.

5.1. The Swedish Case

The central factor which shapes the nature of RCC in the Swedish context is its state-oriented risk culture (Cornia et al., 2014)[9]. This entails the belief that risks and disaster consequences can be minimised, and that the public authorities should take care of risk prevention activities. This risk culture also entails high trust in authorities, which is characteristic of Sweden (Ihlen, Johansson, & Blach-Ørsten, 2022). While there has been a decline in institutional trust in Sweden in recent years (Medieakademin, 2018), the period of the COVID-19 pandemic has been an exception to this, likely due to the "rally-round-the-flag effect" of such a health threat (Esaiasson, Sohlberg, Ghersetti, & Johansson, 2020).

Sweden has a well-developed media market with a high newspaper circulation, strong and highly trusted public-service broadcasting, press subsidies, a high level of journalistic professionalisation, and the institutionalised self-regulation of journalists, as well as a historically strong protection of press freedom (Hallin & Mancini, 2004; Medieakademin, 2022). At the same time, consensus-oriented media reporting has been shown to fail in their critical examination of authorities, their actions and communication during previous public health crises (Cornia, Ghersetti, Mancini, & Odén, 2016; Simons, 2020). The most recent research shows that during the COVID-19 pandemic, the media reporting in Sweden was more informative than investigative. Despite this, the proportion of critical media discourse increased throughout 2020 (Ghersetti, Ólafsson, & Ólafsdóttir, 2023).

It is also worth noting that Sweden developed a solid internet infrastructure early in the development of the internet, to the point that nowadays, over 94% of Swedes use the internet daily (*The Swedes and the Internet*, 2022)[10]. Indeed, over 70% of Swedes use Facebook alone, making it the second most popular social media platform in Sweden after YouTube. Furthermore, although the frequency of use varies

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[9] State-oriented risk culture stands in contrast to other types of risk culture such as: (i) individual-oriented risk culture in which there is a strong emphasis on individual responsibility in preventing risks and minimising their effects, and (ii) fatalistic risk culture in which disasters are regarded as extraordinary events that nobody could have prevented, whereupon, the main focus is on crisis management and rescue operations rather than crisis prevention (Cornia et al., 2014).

[10] The oldest generation of Swedes predominantly comprises the share of people who do not use the internet (*The Swedes and the Internet*, 2022).

across generations, 2 out of 3 internet users born in the 1970s, 1980s, and 1990s use Facebook daily (*The Swedes and the Internet*, 2022). Furthermore, numerous public and closed groups on Facebook are explicitly devoted to public health issues, thereby creating communicative spaces for multivocal RCC.

5.2. Public Health Risks and Crises

One of the central aspects of public health management is the integrative approach to risks and crises, which focuses on prevention behaviour and measures (risk communication) as well as coping strategies (crisis communication). This dissertation will analyse RCC in two contexts: the 2014-2015 Ebola outbreak and the vaccination communication in Sweden from 2018-2020. Both contexts entailed major public health issues, but with differing degrees of danger, occurring at different times and affecting different target groups.

In August 2014, the WHO declared the Ebola outbreak in West Africa a public health emergency of international concern. Beginning at the end of 2013, by early 2014, the virus had quickly spread across several West African countries. Moreover, by the summer of 2014, several cases of Ebola had also appeared in the US and several European countries. While some countries were directly affected, many others were just in a state of alarm, closely watching the crisis develop, as well as supporting the affected nations, and engaging in pro-active crisis preparations. While there were several suspected cases of Ebola in Sweden, none were confirmed. Despite this, the outbreak became a prominent "media event" (Katz & Dayan, 1994) with significant attention in news media and social media. The first sub-study's main focus will be mediated crisis-related communication during this period.

While the reactions to the Ebola outbreak varied across different countries, given the relative cultural universality of media logics in Western democracies (Asp, 2014), it is, therefore, possible to argue that a single-country analysis would allow for a more in-depth examination of RCC during this period, while still applying to other national contexts.

The two other studies will focus on RCC in relation to vaccination communication. In light of the fact that vaccination is an efficient tool to prevent and mitigate public health damage caused by infection, it would not be unreasonable to describe vaccinations as the single most life-saving innovation in the history of medicine (R. Richter, 2015). While the medical community agrees that the benefits of vaccination outweigh its potential risks, some individuals remain critical. As a result, despite the growing access to vaccination, vaccines are increasingly under-used and under-valued (Ehreth, 2003) to the extent that vaccine hesitancy is among the top-ten threats to global health, according to the WHO (2018). This is particularly crucial because public attention to vaccination has skyrocketed since 2020 due to the COVID-19 pandemic.

In Sweden, despite the fact that vaccination is voluntary, vaccination rates are among the highest globally, with 97% of children being vaccinated according to the national immunisation recommendations (Folkhälsomyndigheten, 2021).

Concurrently, however, Sweden also has a long history of controversy regarding this topic (Maaniitty, 2022). One of the first well-documented public discussions regarding vaccination was Stockholm's 1873-1874 smallpox epidemics (Nelson & Rogers, 1992). Moreover, the modern-day vaccination discourse has been further shaped by two prominent events in the last few decades: the side effects of the Pandemrix vaccine,[11] and the alleged side effects of the vaccines against the human papillomavirus infection (European Medicines Agency, 2015).

Nonetheless, the mainstream discourse in Sweden still predominately favouring vaccination; vaccine-critical voices are marginalised (Seller, 2022) and mostly absent or appear only sporadically in the media. This has resulted in relatively contained clusters (both online and offline) of groups of individuals opposing vaccination (Dyrendal, 2023). However, the offline clustering of vaccine-critical citizens still results in regular local outbreaks of vaccine-preventable diseases, such as measles, in areas with low vaccination rates (Folkhälsomyndigheten, 2020).

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[11] After the use of the Pandemrix vaccine to combat the 2009 influenza A(H1N1) pandemic in Sweden, over 300 vaccinated individuals, primarily children, developed narcolepsy, a severe and chronic sleep disorder with no known cure yet (Vetenskapsrådet, 2017). Although studies have confirmed a link between the Pandemrix vaccine and an increased risk of developing narcolepsy, detailed understanding of the mechanisms of this link is still lacking (Vaarala et al., 2014).
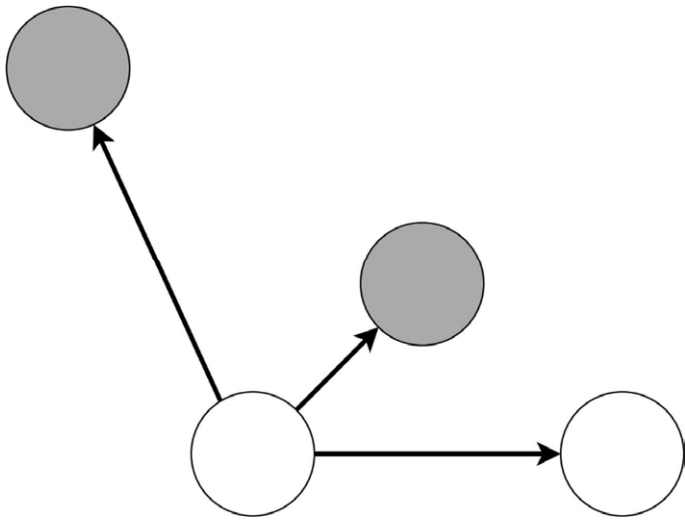
6. METHOD AND MATERIALS

As the three main research questions of this dissertation approach the concept of the rhetorical arena from different perspectives; they require different research methods. The first sub-study will utilise a quantitative content analysis to map the content of rhetorical sub-arenas. The second and the third sub-studies will draw on the data collected from in-depth interviews with lay social media users to gain a better understanding of online participation and how it is affected by trust in institutional actors. This chapter will outline the methodology, the data collection process, and the ethical considerations of these studies.

The content analysis of the first study was conducted on data from the 2014-2015 Ebola outbreak. The data covers the period from August 1, 2014, to January 31, 2015, corresponding to the peak and the main events of the outbreak. The study analysed the content of three selected rhetorical sub-arenas (for the theoretical justification of the selection, see Chapter 7.1.).

The first sub-arena included news articles from the websites of two major Swedish newspapers, Dagens Nyheter (DN) and Aftonbladet (AB). DN is Sweden's largest quality morning newspaper, with a daily readership of 870,000 unique online visitors (Orvesto konsument, 2022), and has a decidedly "independent liberal" standpoint. In comparison, AB is the largest tabloid newspaper in Sweden, with a daily online audience of around 4 million readers (Orvesto konsument, 2022), and described as "independent social-democratic". The news articles were collected through Mediearkivet (Retriever), Scandinavia's largest digital archive of media sources, including print and online editions. This proved a very useful resource, allowing users to conduct full-text searches of its archives. The search string used was "ebola*".

The second sub-arena included news posts about the Ebola outbreak which were posted on the official Facebook pages of the news organisations above. Both DN and AB have a well-established online presence, with very active Facebook pages (Larsson, 2017). AB, in particular, was praised for leading the development of web and multi-platform publishing of Swedish newspapers (Hedman & Djerf-Pierre, 2013, p. 376).

As mentioned earlier, Facebook, in general, is one of the most used social media and is the leading platform for user-generated content in Sweden (*The Swedes and the Internet*, 2022). Moreover, Facebook is frequently used for discussions and debates (Eriksson & Olsson, 2016). In light of this, the third sub-arena studied comprised user comments on Ebola-related posts on Facebook.

The data collection from Facebook was conducted using Netvizz 1.3 (Reider, 2013)[12]. This application allows users to access and download information from

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[12] It should be noted that the Netvizz application is currently not available due to changes made to Facebook's policies after the Cambridge Analytica scandal, where a marketing firm illegally acquired over 50 million data records from Facebook during the 2016 US presidential elections, which were

selected pages through the open Facebook Application Programming Interface (API). This has been widely used for research purposes (Venturini & Rogers, 2019), as the application automatically anonymises social media users' data, including profile names. All posts and user comments on the official Facebook pages of the chosen news outlets, DN and AB, were collected using the Netvizz application and filtered for posts related to the Ebola outbreak (the search string was "ebola*"). This search resulted in 47 posts and 1,661 user comments on these posts. Table 1 summarises the three data sets.

	News articles	Ebola-related posts on Facebook	User comments on Ebola-related posts
Dagens Nyheter (DN)	289	17	140
Aftonbladet (AB)	559	30	1,521
Total	**848**	**47**	**1,661**

Table 1. The data sets used for the content analysis.

The collection and analysis of data from social media entail several ethical considerations. First, the study only collected data (posts and user comments) that had been made public. Despite this, this distinction between "public" and "private" is sometimes challenging in relation to the internet. Sveningsson (2008), for example, has stressed that on the internet, what is public and private is a continuum, not a dichotomy, since both types of spaces co-exist on the same internet platform. However, some users may not fully understand the demarcation between public and private spaces, meaning that they might not be aware of the extent to which other people can see their online actions and use such data for research or other purposes (Sveningsson, 2008). This thus raises the question of whether some data on social media was made accessible to a broader public deliberately, by accident or because of a lack of understanding of various privacy settings. Purdam and Elliot (2015) have defined this distinction as "intentional data" (p.30). Second, during the data collection, all user-related information was automatically anonymised. Moreover, the study did not use verbatim quotes to prevent the identification of individuals being quoted (Elgesem, 2015; Lathan et al., 2023). This study has thus followed the guidelines established by the Swedish Research Council.

To address the second and third research questions, the study used in-depth interviews with social media users about their experience of online participation. This methodology is suitable for explorative research (Swedberg, 2020) because it offers an

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used to contribute to Donald Trump's campaign (Rehman, 2019). The scandal led to a heated debate about data protection on social media platforms, resulting in a significant reduction in the amount of information released through Facebook's API. This has greatly affected digital research opportunities (Venturini & Rogers, 2019).

in-depth, contextualised understanding of experiences that cannot otherwise be observed directly (Brinkmann & Kvale, 2015).

The interview participants (IPs) were recruited to collect research data with high information power (Malterud, Siersma, & Guassora, 2016). Therefore, a set of criteria was used to target a particular sample set of individuals whose experiences would yield analytic value. In order to meet the selection criteria, the subjects needed to have (i) participated in online communication about vaccinations on Facebook; (ii) expressed a clear opinion (be that favourable or critical) about vaccination; and (iii) a high degree of communicative activity on Facebook, consisting of regular and frequent contributions to theme-specific groups or pages by creating/sharing posts or leaving comments.

The first step of the recruitment process was creating a tailor-made research account on Facebook to ensure the anonymity of all the participants. The account's profile included information about the researcher, the study, and a link to the study's description on the university's website.

The second step was to conduct a general search on Facebook to identify all the relevant public and semi-public Swedish Facebook groups, which were also searchable and visible to non-group members. While some groups had several hundred members, others had amassed several thousand Facebook users. There were two types of groups: the first type focused on broader discussions and welcomed all users, such as Vaccindiskussioner ("Vaccine discussions"), while the second type targeted social media users with particular opinions or experiences (predominantly those critical of vaccinations), such as Vaccinkriget (V-kriget) ("The Vaccine War") and Vaccinationens baksida ("The Downside of Vaccination"). All of the most active users who created content and participated in discussions in these relevant groups were contacted. They received a brief interview invitation with a link to the full study description on a university web page.

The context specificity is also raised in several methodological considerations. Firstly, the recruitment of interview participants was a long and challenging process. The issue of vaccination is a highly sensitive topic, and many vaccine sceptics who actively communicate on social media have little trust in institutions, including authorities and pharmaceutical companies (Offit, 2012). Furthermore, many social media users feel angry about being alienated and excluded from the mainstream discourse (Featherstone & Zhang, 2020). These attitudes created significant difficulties in recruiting interview participants and thus required a carefully structured and well-thought-through approach. In order to overcome institutional distrust, the interview invitation clearly stated that the focus of the study would be on the use of social media and online participation rather than on the issue of vaccination *per se*. It also emphasised that neither the Swedish public health authorities nor Facebook had not funded the research[13].

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[13] Several social media users asked whether the study's results would be shared with Facebook and utilised for censorship.

The exploration logic guided the underlying approach to the interviews (Malterud, 2001). The aim was to offer new insights that could contribute to a better understanding of lay online participation rather than to describe all aspects of the phenomenon entirely. For this study, 11 interviews were conducted with participants from a highly specific sample set (see Table 2). The interviews were conducted until the collected data reached a point where no new thematic codes emerged (Fusch & Ness, 2015). This builds on the word of Guest et al. (2006), which indicates that data saturation in qualitative studies mainly occurs within twelve interviews, according to a statistical meta-analysis of thematical saturation of interview datasets.

The questionnaire used in the interviews consisted of three sections. The first focused on the participants' overall experiences communicating about vaccination on Facebook (groups/pages, activity over time, forms of participation). The second section examined online participation practices, as well as what stimulates and hinders them. Lastly, the final section explored the participants' trust in the authorities and the news media in relation to online participation. The intelligibility of questions was tested during a pilot interview.

The study also raised the issue of ethical approval. According to the GDPR (2018), personal data is defined as data that reveals a person's race or ethnic origin, political opinions, religious or philosophical beliefs, trade union membership, or personal data regarding a person's health (Paragraph 1, Article 9). As the study design did not require the collection of sensitive personal data; however, the interviews did not contain any questions which collected data of this kind, meaning that there was no requirement to apply for the ethical approval.

Nevertheless, the study did follow the recommendations of the Swedish Research Council (Vetenskapsrådet, 2011). Thus, before the interviews, all the participants were briefed about the study, its focus on communication on social media, and how the data would be used. Subsequently, the interviewees were asked to verbally consent to participate in the study and be audio recorded.[14] Additionally, the interviewees were informed that they could withdraw their consent to being interviewed at any time and refrain from answering any questions. In one case, a participant asked to cancel the interview after several minutes for personal reasons, whereupon the recording of the collected data was deleted. Furthermore, all of the participants were also anonymous. In one case, one of the potential participants only agreed to be interviewed on the condition that their name would be stated. After careful consideration, the individual was informed that accommodate this request would not be possible, as this could promote that particular individual or their viewpoints. In the end, the interview with this person was therefore not conducted.

The interviews were collected in different situational contexts: during the measles outbreak in Gothenburg (the second largest city in Sweden) in 2018 (5); prior to the COVID-19 pandemic in 2019 (4); and during the COVID-19 pandemic but before

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[14] The recordings were first stored using Citrix ShareFile, as per the data protection policy of the University of Gothenburg, and then deleted after the transcription of the audio was completed.

the vaccination programme commenced in December 2020 (2). The mean interview length was 41 minutes.

N	Attitude expresses in vaccination communication	Sex[1]	Age group	Interview medium	Length, minutes	Year of the interview
IP1	for	Female	30-40	Skype	43	2018
IP2	for	Male	30-40	Skype	36	2018
IP3	against	Female	50-60	Skype	39	2018
IP4	for	Female	40-50	Skype	31	2018
IP5	for	Female	20-30	Telephone	40	2018
IP6	against	Female	30-40	Skype	44	2019
IP7	against	Female	20-30	Telephone	56	2019
IP8	for	Female	30-40	Face-to-face	37	2019
IP9	for	Female	40-50	Face-to-face	35	2019
IP10	against	Male	60-70	Facebook	50	2020
IP11	against	Female	-	Messenger[2]	n.a.	2020

Table 2. Interview subjects.

Comments: [1] It was registered according to the self-identification of the respondents on their Facebook profile pages. [2] A synchronous written interview.

The interviews were conducted in the medium preferred by each participant, whether over a phone, an app, or face-to-face. This flexibility allowed for a wider recruitment reach, as interviewees could participate regardless of their location in Sweden. This also allowed for the recruitment of respondents from vulnerable target groups lowering the threshold for participating in the study (Neville, Adams, & Cook, 2016). One of the most crucial aspects of data collection was securing an open and unbiased interview process to elicit genuine feelings and responses (Hallett, 1995). This first step was to attain a good rapport with the interview participants (Briggs, 1986), despite potential disagreements about vaccinations. To achieve this, it was essential to establish mutual respect by showing the participants interest and empathy without questioning or judging the opinions and attitudes presented while simultaneously maintaining a neutral stance to avoid portraying any of the respondents in an unnecessarily positive light (George, Kaplan, & Main, 1996).

All the interviews were conducted in Swedish and transcribed using NVivo 12. The transcripts were systematically analysed following Miles and Huberman's (1994) data-analysis procedures: data reduction, data display, and the drawing of

conclusions/verification. The interview transcripts were continuously inductively coded in NVivo 12 during the data reduction phase. During the data display, these codes were clustered into topics related to each research question. Lastly, the topics were reviewed to identify multiple possible meanings and interpretations.

7. OVERVIEW OF THE SUB-STUDIES

7.1. Sub-Study 1: *"Disentangling Rhetorical Sub-Arenas of Public Health Crisis Communication: A Study of the 2014-2015 Ebola Outbreak in the News Media and Social Media in Sweden"* [15]

The first sub-study explores the macro perspective of the rhetorical arena and expands it by investigating communicative contributions across several rhetorical sub-arenas on social media during a public health crisis, specifically, the 2014-2015 Ebola outbreak (see Figure 4).

While the broad rhetorical arena represents an all-encompassing communication during a specific situation, it has been proven fruitful to study a larger rhetorical arena by breaking it down into sub-arenas (Frandsen & Johansen, 2023). Coombs and Holladay (2014) have proposed that the type of communication channel can demarcate the sub-arenas. Their proposal rests on two premises: firstly, the fact that different communication channels are potentially populated by distinct audiences, and, secondly, each channel has a specific set of affordances, thereby shaping possible actions (Hutchby, 2001). However, this approach to rhetorical sub-arenas is limited due to the hybridity of the media ecology of social media platforms, which allows for a variety of content producers (Benkler, 2007). Thus, different actors use of the same channel for different means (Jenkins, Ito, & boyd, 2016).
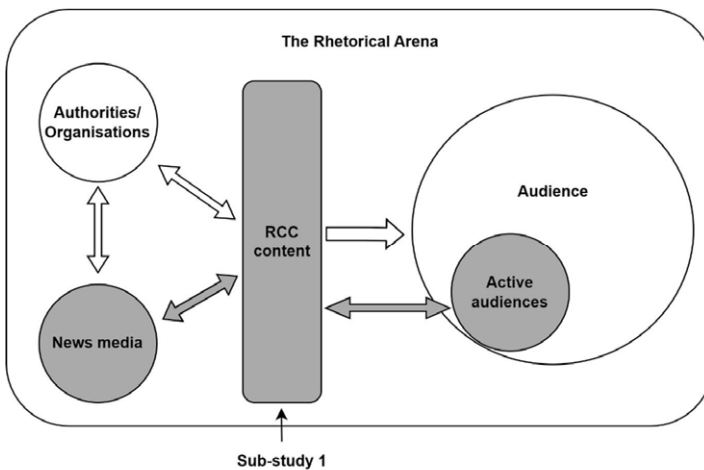

Figure 4. The outline of Sub-Study 1.

In order to better understand different content producers, Sub-Study 1 drew on the concept of media logic(s). Initially, the concept of media logic was established in

the late 1970s by Altheide and Snow (1979). It refers to informal routines, journalistic norms, commercial strategies, and technological prerequisites that affect how news stories are collected, shaped, and presented to the public. Often, in risk and crisis situations, authorities and organisations depend on the news media to disseminate as much relevant and correct information as possible (Dunaway & Graber, 2022; Johansson & Odén, 2018), whereupon the news media acted as gatekeepers and transmitters of crisis messages. In recent decades, the concept of media logic has been revisited and expanded to include the digital environment. This is referred to as network or social media logic (Klinger & Svensson, 2014; Van Dijck & Poell, 2013). These concepts thus outline what kind of content is created and shared on social media platforms (Hermida, 2014).

The co-existence of media logics is especially relevant in the context of the complexity of the rhetorical arena of crises, in that they usually involve numerous content producers and exist across multiple communication channels. Sub-Study 1 thus aimed to disentangle the rhetorical sub-arenas which emerged during the 2014-2015 Ebola outbreak. To do so, the study looked at three sub-arenas where (i) the same content producer (the news media) used different communication channels for information dissemination, and (ii) one communication channel (Facebook pages) used by different content producers (see Figure 5).
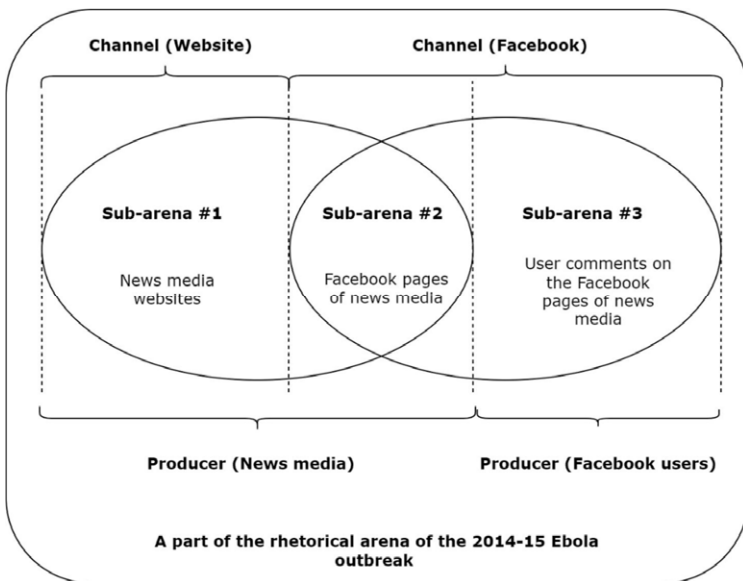

Figure 5. Three rhetorical sub-arenas were analysed in the study.

These rhetorical sub-arenas were examined with the following research question in mind:

What characterises the content of different rhetorical sub-arenas of a public health crisis, and in what ways do they differ?

The study's results empirically demonstrated that the selected rhetorical sub-arenas differed in terms of their level of attention to issues, the topics addressed, and the tone of communication. The level of attention given to issues largely correlated with the outbreak's key events, such as the declaration of an international emergency by the WHO, the suspected cases of Ebola in Sweden, and the confirmed cases of Ebola in the United States and Spain. Additional peaks in the Facebook posts occurred in relation to the news media reporting about human interest stories (e.g., the infected dog Excalibur) and controversial events (e.g., the sale of an Ebola contamination suit as a Halloween costume). One of the most noticeable deviations in the user-generated comments was related to the Ebola alarm at the largest airport in Sweden, Arlanda. Otherwise, news stories gained significant media attention and triggered communication activity in other sub-arenas, including news stories shared on the official news media Facebook pages and in user comments.

The content varied across the sub-arenas in several ways. Firstly, the news stories shared by lay users on Facebook entailed a stronger focus on sensational and human-interest stories compared to the distribution of topics on the news websites. This suggests that different media logics determined the content in the analysed sub-arenas.

Secondly, the findings show several points of narrative divergence: (i) new topics appeared in user-generated comments, such as the migration crisis of 2014 and Sweden's migration policies, which demonstrated the interconnectedness of societal issues (Hilgartner & Bosk, 1988) and highlighted the perception of crisis events in a larger context; and (ii) some topics were absent in user comments (e.g., the level of international economic aid to the affected countries, which was reported on in 12% of newspaper articles and 6% of the news shared on Facebook). The latter indicates that the agenda-setting by the news media has limited effect in relation to user-generated content (Papadouka, Evangelopoulos, & Ignatow, 2016).

Finally, the results reflect the tone of the content throughout the analysed period. This was measured using an index showing the relationship between alarming and reassuring content units. The analysis reveals that the tone varied over time: the more tangible the danger, the less alarmistic the tone of the information communicated in all rhetorical sub-arenas. Equally, however, there was also a clear difference between the sub-arenas. For example, while the tone of information in the news media was highly alarmist overall, the overall alarmism index of the news media posts on Facebook was twice as high. In contrast, the user-generated comments in the third sub-arena were consistently more reassuring in tone.

7.2. Sub-Study 2: "How can I keep quiet?": Motivations to participate in vaccination communication on Facebook.

The second sub-study aims to further expand the micro perspective of the rhetorical arena by offering an analysis of motivations for lay online participation in RCC. As noted before, the rhetorical arena is composed of multiple senders. Institutional actors, including organisations and authorities, their goals, obligations, and communication strategies have traditionally been at the core of RCC research (Boin et al., 2005; Sellnow & Seeger, 2021). At the same time, lay social media users as emergent actors contributing to RCC are under-researched. And the second study aims at exploring the characteristics of lay online participation in RCC with a particular focus on motivations.
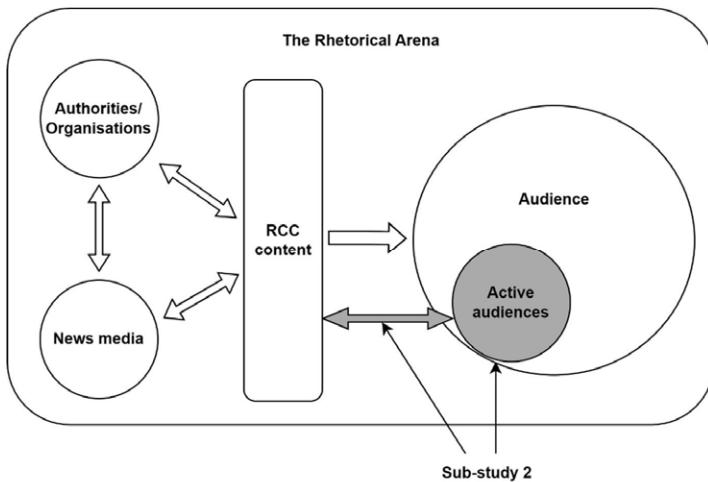
Figure 6. The outline of Sub-Study 2.

Despite all of the benefits of the RAT model for understanding the multivocality of risk and crisis communication, it does not provide a specific theoretical lens to analyse the participatory communicative behaviour of the involved actors, including lay social media users. Therefore, this sub-study employed an additional theoretical framework, Peter Dahlgren's (2011) model for online participation. This model has several advantages. Firstly, this model was explicitly developed for operationalising participation in the digital sphere. Secondly, it provides a suitable conceptual toolbox for an explorative study, in contrast to frameworks with a pre-set list of categories (as in the uses and gratifications approach, for instance) (Katz, Blumler, & Gurevitch, 1973; Rubin, 2010; Whiting & Williams, 2013). Thirdly, this model was designed to be generally applicable and not pre-targeted to participation in specific domains (e.g., political participation or fan communities).

According to this model, online participation can be broken down into five parameters, which can be analysed separately or in combination: the socially situated context (*trajectories*), the communication form (*modalities*), the intentionality

(*motivations*), the norms and practices (*sociality*), and the manifestation of participation (*visibility*) (Dahlgren, 2011).

This sub-study takes a context-specific approach and looks at the case of vaccination communication on Facebook in Sweden. The trajectories and modalities of online participation were pre-selected by the case study, and the three remaining parameters lay the ground for the following research questions:

RQ1: What are the motivational factors for lay social media users to participate in risk and crisis communication in the public health context, specifically on vaccination?

RQ2: What characterises the sociality of participation on Facebook, and how does it relate to motivations?

RQ3: What characterises the visibility of participation on Facebook, and how does it relate to motivations?

The analysis of the interviews produced three main findings. Firstly, three dominant clusters were identified concerning the motivations for online participation: personal interest, information brokerage, and persuasion. The first cluster shows that one of the initial triggers for participating in online vaccination communication lay in the users' personal or professional interests and/or experiences of vaccination or vaccine side effects. This demonstrates how the internet makes it easier for individuals to find and partake in issues that concern them personally (Coleman, 2013). The second cluster highlights the role lay social media users have as grassroots intermediaries (Jenkins, 2006a), in that users' communication allows for the sharing of organisational, and news media content, as well as user-generated content. The study thus highlights the potential benefits and dangers of such participation, that information brokerage can facilitate or disrupt institutional RCC, depending on the accuracy of the shared information.

Finally, the third cluster demonstrates the importance of "the [online] presence" of certain people and ideas for users. This relates to participation, where users try to make alternative positions visible. In this light online participation serves to ensure that discussion spaces are not overrun by their opponents, as well as drawing attention (giving a presence) to arguments that generally do not appear in the mainstream vaccine discourse. Interestingly, this presence primarily targets undecided audiences who do not yet hold strong opinions about vaccination. The study describes each cluster in detail and demonstrates how these clusters shape participatory communication using interview examples.

Secondly, the findings of Sub-Study 2 highlight how lay online participation is shaped by Facebook sociality. The results show that online participation is fundamentally characterised by asynchronous communication. On the one hand, it encourages social media users to consider and amend their posts and comments before publishing them. On the other hand, it creates room for misunderstanding. Another characteristic of this sociality is hostility. Such online expression of aggression, insults, and hatred towards other users is sometimes called flaming, vitriolic online

exchanges (Dery, 1994). The study's results also show that hostile online interactions undermine user motivations to participate in some situations but strengthen them in others. Another aspect of this sociality is that vaccination communication is frequently repetitive, and many discussions follow the same pattern of arguments and counterarguments developing into communication loops.

Lastly, the study demonstrated how various degrees of content visibility on Facebook allow users to set up distinct "zones of peace" and "zones of fight". These spaces, in Goffman's (1959) terms, can refer to backstage ("zones of peace") and frontstage ("zones of fight") communication spaces. The former represents a safe space where participation occurs on Facebook in private or semi-public sub-arenas. These spaces are primarily inhabited by followers/friends and like-minded users and thus allow for free interaction without heated confrontations. In contrast, the latter describes open rhetorical sub-arenas on Facebook, such as the pages of authorities, news organisations, and open groups where various views on vaccination are debated. The study also highlighted that these zones have different purposes. For example, there are signs that social media users with particular attitudes towards vaccinations (both favourable and critical) are segregated in "zones of peace".

In contrast, the communication between users with opposing views increasingly occurs on public sub-arenas, i.e., "zones of fight". The study thus shows that despite their positions on vaccination, social media users often seek more meaningful, genuine dialogue, thus breaking the vicious cycle of hate. However, these forms of sociality (e.g., hostility) and levels of visibility (anonymity and access to public arenas of communication) can both strengthen and undermine user motivations.

7.3.   Sub-Study 3: "Institutional (Dis)Trust and Online Participation Roles in Vaccination Communication"

The third sub-study is focused on additional factors that come into play on the micro perspective of the rhetorical arena and affect lay online participation in RCC. More specifically, the study looks at how lay online participation is shaped by trust relationships between central actors in risk and crisis communication (see Figure 7).
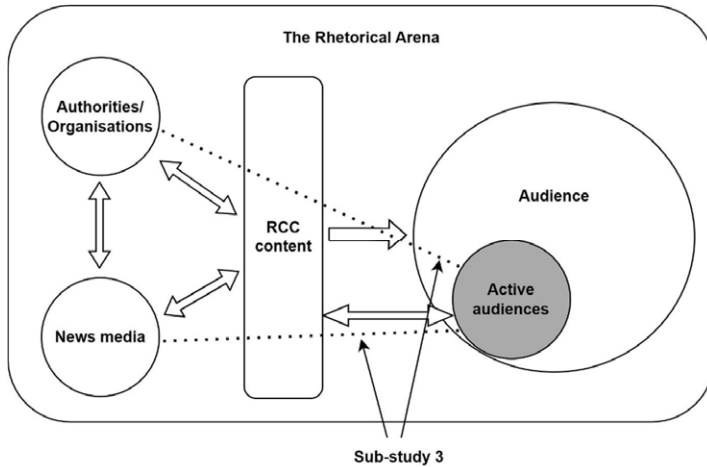

Figure 7. The outline of Sub-Study 3.

The role of trust in the RCC context is multifaceted. Trust is an essential mediator of information perception (Renn & Levine, 1991) and behavioural choices, such as compliance with the recommendations published by the authorities (Johansson, Sohlberg, Esaiasson, & Ghersetti, 2021). In risk and crisis situations, information dearth and high uncertainty require individuals to accept a degree of vulnerability and trust experts' recommendations (Giddens, 1994). Additionally, it has been argued that trust promotes and stimulates a general culture of participation (Newton 2001). However, the ways in which trust shapes lay online participation in the RCC context remain under-researched. This study thus seeks to contribute to filling this knowledge gap.

Trust is a heavily researched concept that encompasses several sub-constructs. This study focuses specifically on trust beliefs, which previously have been said to play an antecedent role in online participation and citizen media production (Moy et al., 2004). In the institutional context, trust beliefs refer to the extent to which one believes that an institution is willing and able to act in the trustor's interests (Harrison McKnight & Chervany, 2001). It is important to clarify that trusting refers to positive expectations; low trust entails diminished positive expectations, whereas distrust creates negative expectations. Trust and distrust are separate constructs but may co-exist (Saunders, Dietz, & Thornhill, 2014).

This study focuses on two core dimensions of trust beliefs: benevolence (the perception of willingness) and competence (the perception of ability). Breaking trust into these two dimensions facilitates the identification of plausibly co-existing trust

and distrust relationships. For example, trust in the benevolence of the aforementioned institutions may exist alongside distrust in their ability to perform the required actions and vice versa.

The explorative nature of this study requires a qualitative approach, thus providing a valuable alternative approach to hitherto heavily quantitative trust research (Valentini, 2020). To limit the impact of additional situational factors, the study employed in-depth interviews with social media users who actively participate online, specifically regarding vaccination communication in Sweden. Indeed, previous research shows that in the case of vaccinations, trust in the authorities and the news media is especially significant (Casiday, 2010).

The main research question for Sub-Study 3 is thus:

In what ways do trust beliefs in the benevolence and competence of (i) authorities, and (ii) the news media shape lay online participation in communication about vaccination in Sweden?

The analysis of the interviews identified three prominent lay online participation roles based on the profiles of trust beliefs in authorities and news media. These roles are the Critics, the Ambassadors, and the Mediators.

The Critic role is characterised by a low degree of trust in benevolence. It entails communicative behaviour that focuses on questioning and disputing official information/recommendations, as well as the news media coverage of vaccination issues. Lay social media users who take on this role have concerns regarding the one-sidedness of RCC from the institutional actors on topics such as vaccination. Their online participation is thus centred around highlighting discrepancies and biases.

In contrast with the Critic, the Ambassador's role is taken on by users who have a high degree of trust in the benevolence of institutions. These users voluntarily endorse and promote official information and participate in debates and discussions on social media in the absence of institutional actors but remain unaffiliated. Their online participation aims to compensate for the deficit of institutional trust among other social media users and add a personal, human dimension to official information.

The third role is the Mediator, which entails a high degree of trust in the benevolence of institutions but also a distrust in the competence of these institutions. In contrast to the Critic role, the Mediator focuses on effective communication, reaching target audiences, and using appropriate and intelligible language. These lay social media users thus become information brokers, as identified in Sub-Study 2, and selectively disseminate and adapt RCC content communicated by institutional actors via social media channels.

8. CONCLUSIONS AND IMPLICATIONS OF STUDY RESULTS

The rhetorical arena in risk and crisis situations is a complex communication phenomenon which unfolds across various media and encompasses multiple communicators. This final chapter aims to summarise the key results and address the three research questions of this dissertation. It is followed by a broader discussion of theoretical contributions and practical implications that the study's findings may have. Lastly, the possible directions that future research could take are considered.

The first research question addressed how lay online participation forms a rhetorical sub-arena on social media. In relation to research question 1, the findings of Sub-Study 1 suggest that lay social media users' participation creates a distinct sub-arena which differs from other interlinked sub-arenas concerning (i) the level of attention given to issues (i.e., sensational and human-interest stories, resulted in separate peaks in attention compared to the news media and the news media posts on Facebook); (ii) topics (i.e., new topics have emerged whereas other topics which were prominent on other rhetorical sub-arenas were absent); and (iii) the tone of the information given (the user-generated comments showed the lowest level of alarmism of all the other analysed sub-arenas).

The second research question aimed to analyse specific characteristics of lay online participation in the RCC context, such as motivations. Sub-Study 2 empirically identified three main motivations for lay online participation: personal interest, information brokerage, and persuasion. The results also identify the effects of sociality and visibility of social media on motivations. The sociality of online participation on Facebook is characterised by asynchronous communication, hostility, and communicative loops, and study results demonstrate how these can hinder or strengthen the motivations of lay social media users. Finally, the results show that the visibility on Facebook affects motivations for lay social media users' participation by demarcating "zones of peace" and "zones of fight" that differ according to the intended audiences and communicative behaviour.

Finally, to address the third research question, this dissertation empirically analysed how lay online participation is affected by institutional trust in the authorities and the news media. Sub-Study 3 identified three prominent online participation roles based on trust beliefs: the Critics, the Ambassadors, and the Mediators, and how they communicate.

In conclusion, the theoretical contributions of this dissertation to a more in-depth understanding of the complexity of RCC on social media are three-fold: (i) This dissertation has examined the interplay between communicative contributions on news media produced and user-generated sub-arenas of RCC and identified points of divergence between interest, topics, and tone of information and suggested considering content producers and visibility on social media as new criteria to distinguish rhetorical sub-arenas; (ii) it has expanded upon the existing micro-perspective of the RAT by analysing motivations of lay online participation and additional factors, such as sociality and visibility; (iii) it has explored the effects of

institutional trust to lay online participation and has outlined three online participation roles and the corresponding communicative behaviour. The following sections will elaborate on these contributions.

8.1. The Macro Perspective of the Rhetorical Arena

The findings of this dissertation further developed the macro perspective of the RAT in relation to the ways to disentangle rhetorical sub-arenas of RCC based on content producers and the visibility.

Firstly, the complex and inter-connected content datasets studied in Sub-Study 1 showed that rhetorical sub-arenas within the same communication channel differed when content producers were considered. Furthermore, this dissertation argues that distinct media logics could have explained these content variations. While previous research has shown that a specific media logic affects the content produced on social media (Hermida, 2014; Larsson, 2018; Wadbring & Ödmark, 2014), this dissertation further expanded upon this line of research by looking specifically at the RCC context and by explicitly applying the concept of media logic to rhetorical sub-arenas.

Secondly, the results of Sub-Study 2 pointed to an additional criterium for distinguishing rhetorical sub-arenas on social media: visibility. More specifically, the study shows that the visibility of different arenas on Facebook affects lay social media users' participation in "zones of peace" and "zones of fight", where communication is targeted and adjusted according to the intended audiences. Participation in the "zones of peace" is usually centred around an audience with congruent opinions. In contrast, the audience of the "zone of fight" is critical or "undecided" (without a strongly held *a priori* opinion). While the former space is primarily used for self-expression, support, and collaboration, the latter is a space for argumentation, competition, and fighting for the presence of specific positions. This also draws attention to the additional complexity of communicative contributions by the same content producer depending on the visibility of particular spaces within a social media platform.

8.2. The Micro Perspective of the Rhetorical Arena

This dissertation also closely examined the participation of lay users in the rhetorical arena from a micro perspective and provided an analysis of motivations for lay online participation.

Firstly, the findings of this dissertation mapped three motivations for lay online participation in the RCC context. Although the identified motivations *per se* are not unique, the findings of this study offer a more nuanced approach to them and contribute to the existing scholarship on motivations for social media use, with a particular focus on content creation and sharing in the RCC context. For example, in line with previous studies, the results suggest that personal interest and individual dispositions drive and shape social media use (e.g., Orchard, Fullwood, Galbraith, & Morris, 2014). It also identified that information brokerage as participation motivation functions like a two-step flow of communication (Lazarsfeld, Berelson, & Gaudet,

1948), where information is disseminated through conduits (opinion leaders), who are influential for other people. The conduits are not necessarily individuals placed centrally in the network (using the terminology of the systems theory approach), but even marginal voices (i.e., less centrally placed) can perform that role. Weimann (1982) argues that the structural placement of such individuals allows them to function as carriers across the boundaries of various subgroups.

Indeed, the findings of this dissertation demonstrate that lay social media users are motivated by the opportunity to become information brokers and thus link scattered individuals and isolated groups in the context of a highly polarised vaccination issue. Such brokerage occurs in public, semi-public and interpersonal communication spaces on social media. Lastly, the study shows that the third identified motivation of persuasion can occur directly in relation to winning an argument or indirectly in presenting alternative views in public debates, thereby distorting the perceived opinion climate by normalising deviant ideas[16].

The dissertation findings also highlight the effects of Facebook's sociality on motivations for lay online participation. For instance, the hostility of communication in the rhetorical sub-arenas can hamper participation for some users and strengthen the desire to participate for others. Although digital anonymity and the perceived social norms of vitriolic behaviour tend to escalate hostility quicker online[17], it may not be directly affected by a social media environment per se. Kayany (1998) has argued that some "sensitive" topics may bring out uninhibited expressions of hostility. The vaccination communication in Sub-Study 2 is an example of a very emotionally charged topic, for instance. Nonetheless, it is possible that other RCC contexts do not follow a similar pattern of hostility. However, as Sub-Study 1 shows, user contributions increase the likelihood of additional topics being introduced to discussions of risks and crises in the context of other societal issues, as previously observed (Hilgartner & Bosk, 1988; Vigsø, 2023). In the case of the Ebola outbreak, for example, user comments introduced the topic of immigrants into discussions about this crisis. This thus highlights how discussions about additional sensitive topics may emerge in user-generated sub-arenas, potentially causing increasing hostility.

Finally, the dissertation provides insights into the effects of institutional trust on lay online participation in rhetorical sub-arenas. State-oriented risk culture in Sweden with a strong dependency on authorities can hamper participation and the development of self-reliant solutions in crises (Cornia et al., 2014). Also, a high institutional trust might discourage participation since people consider institutions performing their functions well and that journalists as watchdogs participate on their behalf (Moy et al., 2004). Conversely, low trust can instil in audience members the sense that they need to be active to overcome the influence of untrustworthy

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[16] According to Hallin (1986), the increased visibility of deviant opinions usually confined to a small minority can alter the discursive issue framing, meaning that these ideas are instead perceived as a legitimate controversy.

[17] A study by Moor et al. (2010) on YouTube comments shows that users tend to conform to vitriolic norms and thus become more aggressive more frequently when commentators before them had also done so.

authorities and media (Fletcher & Park, 2017; Moy et al., 2004). At the same time, however, the results of this dissertation deliver a more refined view on that by breaking down trust beliefs concerning benevolence and competence. Social media users holding high trust in one dimension may have low or distrust in another, and these variations in trust beliefs shape lay online participation and the three identified roles.

8.3. Practical Implications

The findings of this dissertation also have several practical implications. First and foremost, a more in-depth understanding of lay online participation in rhetorical sub-arenas provided by this dissertation can help to contribute to the better planning and implementation of RCC campaigns.

Since citizens increasingly diversify their information sources, communication practitioners need to engage in issue scanning and monitoring of different rhetorical sub-arenas with a particular focus on identifying and assessing the accuracy of topics. This allows for the finding of the points of convergence, where narratives produced by different actors would reinforce each other, and the points of divergence, where different interpretations of risk and crises would be created and potentially challenge the official information. It is important since key topics can be overshadowed by the presence of other issues and other interpretations. Another aspect that needs to be monitored is the tone of information since high levels of alarmism can affect risk perception (Crijns, Cauberghe, & Hudders, 2017) and information credibility (Nabi & Prestin, 2016).

Also, the dissertation provides an in-depth understanding of lay online participation, which can be useful for RCC practitioners. Indeed, social media users could be an asset or an impediment to strategic communication. They can support and disseminate information from the authorities and affected organisations, and help to reach niche target groups. But they can also criticise, undermine the credibility of official information, and intentionally or unintentionally spread inaccurate information.

The identified online participation roles can have different effects on RCC. For example, monitoring the Critic's concerns could help to identify biases and weak points that hinder effective risk and crisis communication and could escalate in the future. Furthermore, RCC practitioners could benefit from exploring the Ambassadors' potential to restore institutional trust and increase the visibility and presence of official information in the rhetorical arena. During the COVID-19 pandemic especially, institutional actors have actively explored the role of the Mediators in RCC. Finland and Portugal, for example, have run nationwide projects to engage social media users in spreading official information to niche audiences (Pöyry, Reinikainen, & Luoma-Aho, 2022; WHO, 2022a). However, in both cases, the focus was on influencers and using them to distribute official information rather than giving them the autonomy to adapt, evaluate, and re-distribute information in their own way.

It should be noted, however, that a broader embrace of lay online participation in RCC activities entails loosening control over which information will be circulated and

how it will be adapted. This requires a higher degree of flexibility from institutional communicators as well as strategic improvisation (Falkheimer & Heide, 2010, 2022).

8.4. Directions for Future Research

The starting point for this dissertation was the desire to look beyond organisation-centred approaches to RCC and turn the gaze towards lay social media users. It should be noted, however, that RCC research has traditionally been primarily conducted in the context of Western countries (Diers-Lawson, 2017; Dutta, 2007). As social media platforms operate across cultural and national borders, the corroboration and replication of this study's analysis of lay online participation in other cultural contexts would be highly valuable.

Furthermore, research on this topic must be continued to examine other actors operating in the rhetorical arena. Indeed, one of the most noteworthy emerging actors in this context is the social media platforms themselves. For instance, Facebook has tightened control over its content over the last few years to combat vaccination-related misinformation[18]. Having begun merely as functional contemporary bulletin boards that provided spaces for content and communication from various actors, over the last few years, social media platforms have shifted towards playing an increasingly more active role in filtering and moderating information in a way that is comparable to the gatekeeping function performed by the traditional news media.

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[18] In March 2019, Facebook changed its regulations regarding its paid-for ads, Facebook groups, and pages focused on vaccine controversies (Facebook, 2019). Later, in the spring of 2020, amidst the development of the COVID-19 pandemic, Facebook started to add warning labels to or delete user content related to vaccination and COVID-19 misinformation, based on a collaboration with several fact-checking partners. In the first month of this initiative alone (April 2020), Facebook added warning labels to around 50 million pieces of content (G. Rosen, 2020).
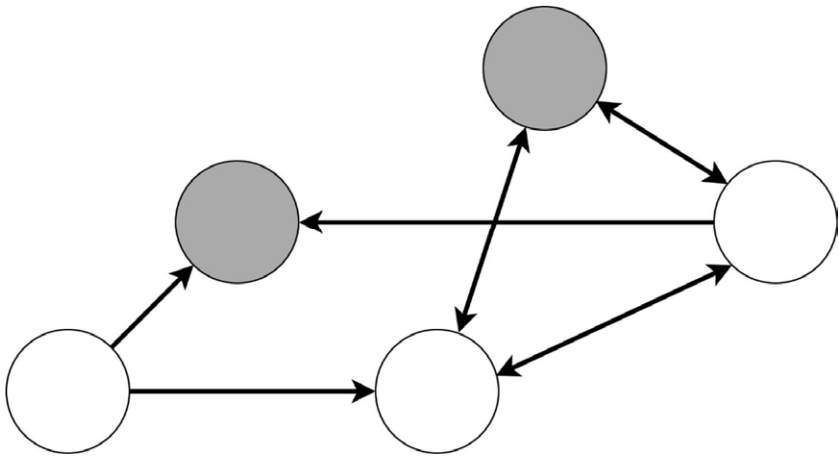
9. SWEDISH SUMMARY/ SVENSK SAMMANFATTNING

RÖSTER I ARENAN: En deltagandecentrerad studie av multivokal risk- och kriskommunikation på sociala medier

De senaste decenniernas omfattande medie- och kommunikationsteknologiska förändringar har lett till att dagens risk- och kriskommunikation äger rum i en komplex mediemiljö där många olika aktörer kan komma till tals. Sociala medier främjar och underlättar deltagande och möjliggör för privata personer att – sida vid sida med myndighetsinformation och medierapportering – skapa, upprätthålla och dela egna krisberättelser. Deras röster bidrar därmed till vad som kallats en multivokal risk- och kriskommunikation (Frandsen & Johansen, 2016).

Traditionella teoretiska och praktiska förhållningssätt till risk- och kriskommunikation fokuserar i allmänhet i första hand på organisationers och institutionella aktörers strategiska kommunikation (Sellnow & Seeger, 2021). Denna avhandling fokuserar däremot på hur vanliga människors, i detta sammanhang kallade för lekmannaanvändare, som inte representerar någon organisation, myndighet eller annan institution deltar som privatpersoner i risk- och kriskommunikation på sociala medier.

Avhandlingen utgår från ett socialkonstruktivistiskt perspektiv och lyfter fram människors tolkningar och meningsskapande i samband med risk och kris, i motsats till ett essentialistiskt perspektiv som i stället fokuserar på fysiska aspekter av olika situationer och företeelser (Falkheimer & Heide, 2006; Frandsen & Johansen, 2016). Det socialkonstruktivistiska perspektivet utgår således från människor och deras agerande snarare än från den faktiska krisen. Det innebär att vissa händelser och situationer tolkas som kriser och därför kan utlösa krisrelaterade reaktioner och beteenden trots att risken är begränsad.

Deltagande (av latinets participat-, "delad i") är ett flerdimensionellt begrepp som i stora drag betyder att medverka i en aktivitet eller händelse (Cambridge, 2023). De senaste åren har en stor spridning av sociala medier och Web 2.0-teknologi lett till en distinkt typ av deltagande online (Oser, Hooghe, & Marien, 2013). Lekmannaanvändare skapar, delar och kommenterar innehåll på sätt som tidigare inte varit möjliga eller ens tänkbara (Jenkins m.fl., 2013). Dessa bidrag kan både understödja och utmana officiell risk- och kriskommunikation, liksom de kan leda till större exponering av olika åsikter och därigenom påverka opinionen och den offentliga diskursen.

Syfte och frågeställningar

Syftet med denna sammanläggningsavhandling är att

undersöka multivokalitet i risk- och kriskommunikation utifrån lekmannaanvändares deltagande i sociala medier.

Avhandlingen utgår från en teori om retorisk arena, Rhetorical Arena Theory (RAT). En "retorisk arena" är, enligt Frandsen och Johansen (2023), ett socialt utrymme som öppnar sig under en kris där flera röster kommunicerar till, med, mot eller om varandra. Rösterna kan komma från olika aktörer, som till exempel organisationer, myndigheter, politiker, aktivister, experter, medier, samt från den berörda eller icke berörda allmänheten. Huvudsakligen syftar RAT till "att identifiera, beskriva och förklara de kommunikativa processer som tilldrar sig inne på arenan" (Frandsen & Johansen, 2016, s. 142). RAT erbjuder således en konceptuell verktygslåda för analys av kommunikativ komplexitet genom att inkludera många olika aktörer. Teorin bygger på två sammanvävda perspektiv: makro och mikro. Makroperspektivet inkluderar alla röster och alla kommunikativa processer som äger rum på arenan i samband med en specifik situation eller händelse och fokuserar på interaktionsmönstret mellan de röster och aktörer som utgör arenan och som "för krisen in i en medierad existens" (Hearit & Courtright, 2003, s. 87). Mikroperspektivet fokuserar däremot på att analysera egenskaperna i kommunikativa bidrag och processer från specifika och enskilda aktörer på den retoriska arenan.

Ursprungligen fokuserade RAT på en enhetlig och heltäckande retorisk arena (Frandsen & Johansen, 2005, 2010). Men enligt Coombs och Holladay (2014) kan den snarare omfatta flera olika subarenor, det vill säga distinkta sociala utrymmen på den retoriska arenan som är avgränsade från varandra med fysiska, sociala eller symboliska gränser. Användningen av begreppet "subarena" har visat sig vara användbart, och har även accepterats och stöttats av RAT:s grundare (Frandsen & Johansen, 2023).

En föreslagen metod för att avgränsa subarenor är att särskilja vilken kanal som används för kommunikationen (Coombs & Holladay, 2014). Samtidigt blir kommunikationskanaler som sociala medier alltmer sammansatta genom att flera oberoende innehållsproducenter, såsom organisationer, myndigheter och nyhetsmedier men även privata personer deltar i risk- och kriskommunikation. Emellertid finns det begränsad kunskap om på vilket sätt lekmannadeltagandet påverkar innehåll och de kommunikativa processerna inom olika subarenor på sociala medier, och hur innehållet i dessa skiljer sig från det i andra subarenor. Den första forskningsfrågan är därför:

1. På vilka sätt bidrar lekmannadeltagandet till risk- och kriskommunikationens innehåll i retoriska subarenor på sociala medier?

Mikroperspektivet analyserar aktörers kompetenser men förbiser deras motivation: vad det är som utlöser, driver och upprätthåller kommunikativa beteenden på den retoriska arenan. Motivation är en av nyckelparametrarna för deltagande online (Dahlgren, 2011) och utgörs av de interna processerna som aktiverar, vägleder och upprätthåller mänskliga beteenden (Baron, 1991). Den andra forskningsfrågan i detta avhandlingsarbete är därför:

2. Vad kännetecknar och påverkar motivationen för lekmannadeltagandet i multivokal risk- och kriskommunikation på sociala medier?

Slutligen innebär RAT att kontextuella faktorer och relationer mellan olika aktörer påverkar kommunikationen på den retoriska arenan. Men analyser av vissa aspekter hittils saknats. Palmieri och Musi (2020) har föreslagit en utvidgning av RAT genom studier av förtroende och dess roll. Tidigare forskning har visat att förtroende för institutioner är avgörande för riskförebyggande, krishantering, krisbeteende och kriskommunikation (Cornia, Dressel, & Pfeil, 2014). Avhandlingens tredje forskningsfråga är därför:

3.   *På vilka sätt påverkar institutionellt förtroende lekmannadeltagandet i risk- och kriskommunikation på sociala medier?*

Tre delstudier

Avhandlingen är baserad på tre studier om risk- och kriskommunikation i samband med händelser och frågor som alla är relaterade till folkhälsa, där delstudie ett behandlar kommunikationen kring ebolautbrottet 2014–2015 medan delstudierna två och tre handlar om vaccinationskommunikation i Sverige under perioden 2018 till 2020.

I delstudie ett görs en innehållsanalys av tre retoriska subarenor under ebolautbrottet. Undersökningsperioden omfattar tiden från 1 augusti 2014 till 31 januari 2015, och subarenorna inkluderar: (a) nyhetsmedier (Dagens Nyheter och Aftonbladet, sammanlagt 848 analysenheter), (b) samma nyhetsmedier på Facebook (sammanlagt 47 analysenheter), och (c) allmänhetens kommentarer på Facebook (1,661 analysenheter). Innehållet från nyhetsmedierna samlades in från Retrievers Mediearkivet och innehållet från Facebook genom Netvizz 1.3-verktyget.

Delstudierna två och tre bygger på intervjuer med användare av sociala medier. Intervjufrågorna handlade om kommunikationen på Facebook, samt om motivation och förtroende för myndigheter och nyhetsmedier. För dessa studier genomfördes elva intervjuer med aktiva deltagare i vaccinationskommunikation på Facebook i Sverige. Intervjuerna genomfördes under tre olika perioder: dels år 2018 under ett mässlingsutbrott i Göteborg (5 intervjuer), dels år 2019 före covid-19-pandemin (4 intervjuer), samt år 2020 under covid-19-pandemin men innan vaccinationsprogrammet startades (2 intervjuer).

Resultat och slutsatser

Den första forskningsfrågan tar alltså upp hur lekmannadeltagande online bidrar till risk- och kriskommunikationen i retoriska subarenor på sociala medier. Forskningsfrågan besvarats i delstudie ett, där resultat visar att lekmannaanvändares deltagande i sociala medier bildar en egen subarena som skiljer sig från andra subarenor när det gäller: uppmärksamhet, ämne och tonläge. Sensationella och personliga berättelser resulterade i separata och högre toppar av uppmärksamhet jämfört med nyhetsmedierna och nyhetsmediernas inlägg på Facebook. Nya ämnen kom också upp, medan några ämnen som var framträdande på andra retoriska subarenor saknades. I tonläget var de lekmannagenererade kommentarerna minst alarmerande av alla analyserade subarenor.

Den andra forskningsfrågan syftar till att analysera motivationen bakom lekmannadeltagande online vid risk- och kriskommunikation. Delstudie två identifierar tre huvudsakliga typer av motivation: personligt intresse, informationsförmedling – behov av att sprida information och övertalning – behov av att påverka andra. Resultaten visar också att socialitet och synlighet för andra på sociala medier påverkar lekmannaanvändarnas motivation att aktivt medverka på sociala medier. Studien visar att socialitet i onlinedeltagande på Facebook kännetecknas av asynkron kommunikation, fientlighet och kommunikativa loopar, och att dessa faktorer både kan hindra och stärka motivationen hos lekmannaanvändare.

Slutligen visar studien att lekmannaanvändarnas synlighet på Facebook betingas av två distinkta typer av kommunikationszoner, här benämnda "fredszoner" och "stridszoner". "Fredszoner" är privata eller semi-privata utrymmen, till exempel personliga sidor eller grupper som är öppna endast för godkända medlemmar. "Stridszoner" å andra sidan utgörs av öppna sidor eller grupper. Zonerna skiljer sig åt genom att användarna kan ses av olika publiken. I "fredszoner" är det mestadels vänner, följare och likasinnade användare. I "stridszoner" däremot, kan användarna bli synliga även för antagonister och publik utan tydliga ställningstaganden som kan påverkas. Studiens resultat visar att synlighet av lekmannaanvändare i dessa zoner påverkar motivationen. Således deltar användarna i kommunikation i "fredszoner" för att samla in argumentation och stödja varandra. Men den mest framträdande motivationen för att delta i kommunikation i "stridszoner" är att visa närvaro av åsikter som annars inte får plats i den offentliga risk- och kriskommunikationen.

Slutligen görs i avhandlingen en analys av hur lekmannadeltagande påverkas av förtroendet för myndigheter och nyhetsmedier. I delstudie tre diskuteras två aspekter av förtroende: dels förtroendet av andra aktörers välvilja, dels förtroendet för deras kompetens (Harrison McKnight & Chervany, 2001). Utifrån intervjuerna identifierar studien tre framträdande roller för lekmannadeltagande online, nämligen kritikerna, ambassadörerna och medlarna, där kritikerna utmärks av låg grad av förtroende och ambassadörerna av hög grad av förtroende för institutionernas välvilja, medan medlarna utmärks av hög grad av förtroende för institutionernas välvilja men samtidigt av en misstro mot deras kompetens.

Mot denna bakgrund lägger kritikernas kommunikation fokus på att ifrågasätta och bestrida officiella informationsbudskap och rekommendationer liksom av nyhetsmediernas bevakning, i det här fallet av vaccinationsfrågorna. Ambassadörerna stöder däremot frivilligt officiell information, samt deltar i debatter och diskussioner på sociala medier i frånvaro av institutionella aktörer. Deras onlinedeltagande syftar till att kompensera för bristen på institutionellt förtroende bland andra användare av sociala medier. Medlarna slutligen fokuserar på effektiv kommunikation, och på att nå ut till nya målgrupper och använda ett begripligt språk. Tillsammans utgör dessa tre roller av lekmannaanvändare på sociala medier blir sorts informationsmäklare, som selektivt bestrider, stödjer och respektive sprider officiell information.

Sammanfattningsvis leder de teoretiska bidragen från denna avhandling till en djupare förståelse av komplexiteten i risk- och kriskommunikationen på sociala medier. I avhandlingen jämförts risk- och kriskommunikation i nyhetsmedier och på

lekmannagenererade subarenor och identifieras skillnader mellan intresse, ämnen och informationston. Mot den bakgrunden föreslås att innehållsproducenter och synlighet på sociala medier inkluderas som kriterier för att särskilja olika retoriska subarenor. I avhandlingen vidgas också mikroperspektivet för RAT genom påvisandet av olika motivationerna för lekmannadeltagande som finns, och hur dessa påverkas av socialitet och synlighet. Slutligen har effekterna av institutionellt förtroende för deltagande online undersökts, och därvid tre roller för onlinedeltagande identifierats, baserade på graden av förtroende för myndigheters och nyhetsmediers välvilja och kompetens.

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VOICES IN THE ARENA
A Participation-Centred Study of Multivocal Risk and Crisis Communication on Social Media

Contemporary risk and crisis communication occur in a complex multiplatform and multivocal environment, where numerous social media foster and facilitate online participation. Lay social media users are thus able to create, maintain, and share their crisis narrative(s), which exist alongside official information and media reports.

Traditional theoretical and practical approaches to risk and crisis communication focus primarily on strategic communication by organisations and institutional actors and thus fail to account for lay people's participation. In contrast, this dissertation draws on the Rhetorical Arena Theory, intending to explore the multivocality of risk and crisis communication from the perspective of lay social media users' participation.

Voices in the Arena offers three studies conducted in the risk and crisis communication contexts related to public health: the 2014-2015 Ebola outbreak and vaccination communication in Sweden. The results expand the Rhetorical Arena Theory and provide insights into (i) the variations of communicative contributions on rhetorical sub-arenas by the news media and social media users, (ii) motivations for online participation as well as the ways sociality and visibility of communication on Facebook affect these motivations, and (iii) the effects of trust beliefs on motivations for online participation and corresponding participation roles.

Pavel Rodin has professional background in public relations and strategic communications, and his research interests include risk and crisis communication, social media, and online participation.