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How does the public sector deal with citizens' messages and comments on social media? A case of Estonia

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Abbreviations

GCU   Government Communication Unit
MEAC   Ministry of Economic Affairs and Communications
MER   Ministry of Education and Research
MFA   Ministry of Foreign Affairs
MRA   Ministry of Rural Affairs
MSA   Ministry of Social Affairs

1   Social media use in the public sector

The necessity of joining social media is no longer questioned by governments. As the number of users of social media worldwide is expected to account for 4.41 billion people in 2025 (Tankovska, 2021), public administration cannot allow ignoring such a quick and easy channel to reach people "where they are" (Bertot et al., 2010; Bonsón et al., 2017; Mergel, 2012a) and widely adopt new technologies. Having an account on social networking sites became a must-have for any public sector actor nowadays as it helps position itself as a responsive, transparent, and modern institution or a political actor.

At the same time, public organisations frequently did not embrace new approaches to work with new technologies. Most agencies exploited traditional methods in their work with social media: They published information on their accounts and did not engage with the public (e. g., Reddick & Norris, 2013; Campbell, Lambright, & Wells 2014; Mickoleit, 2014); Mergel (2014) called it "a press release style." Hence, social networks' role was usually restricted in institutions to only another channel of dissemination of information about it. Consequently, their adoption did not lead to any changes in the work of communications teams, their management, and editorial processes.

Such one-directional methods, however, are meaningless for social media as it does not correspond to the overall ethos of Web 2.0 (McNutt, 2014; Magro, 2012), scholars denote. Empowered users cannot be affected by being only exposed to the flow of information from an agency's side without having an opportunity to react to it, respond, and being heard. Hence, along with an opportunity to reach a broad audience and to strengthen an institution's public image, new obligations come with adopting social media for governments. Agencies should exploit other tactics – of two-way communications – for social media if they want to engage and keep their audience. Consequently, another question arises – how to ensure that an institution is capable of conducting such two-way communication. Hence, this paper is geared towards analysing how a public sector agency can organise itself to process citizens' voices from social media.

1.1   Motivation

Soon after the advent of a new generation of Web technologies in the early 2000s (O'Reilly, 2007), scholars tended to explore the proliferation and adoption of social media in governments. Here, the most frequent research questions were concerned about the extent to which social media was exploited, the reasons why public sector managers decided to adopt it, and inhibitors preventing them from that. Once a need for bi-directional communication with citizens has been recognised, the next "wave" of research started to concentrate on how to maximize the benefits of social networking for public

sector institutions. Hence, scholars studied how governments conduct two-way communications with users on the Internet, what methods they use, what and how often they write, how to respond to comments, etc., and consequently compared strategies of running social media (e. g., Hofmann et al., 2013; Mossberger, Wu, & Crawford, 2013; Mickoleit, 2014). However, most of this research was one-sided as academics tended more to examine a perspective of users (Mergel, 2014) by, for example, analysing their reactions to government posts, the number of shares, the modality of citizens' comments (e. g., Hofmann et al., 2013; Lovari & Parisi, 2015). However, such analysis usually concentrated on publicly available information – posts and comments – and lacked insights from the internal work of public institutions.

To diminish this one-sided tendency, a row of researchers (e. g., Mergel, 2013a; Meijer & Thaens, 2013) have drawn their attention to public sector organisations and started to analyse the use of social media from a perspective of the public sector. They resorted to interviewing government managers, representatives of communications teams of agencies. These enabled scholars to obtain insights into the internal environment which defines how an organisation exploits its social media. Hence, first conclusions on how social media strategies are formed, internal motives, and obstacles were collected. However, such pieces of research investigating the perspective of public administration on the use of social networking sites are not numerous.

Moreover, another terrain about social media use in the public sector and two-way communications remained deprived of scholars' attention – about citizens' messages on networks. A key point about users' private messages is that social networks are usually not considered official channels of communication in the public sector institution, on the contrary to email, phone, paper inquiry. Therefore, governments are not obliged by law to answer citizens' messages sent on social networks. Nevertheless, numerous public sector organisations leave messaging functions on their networking accounts open. Thus, if a citizen can send a private message to a government entity, certain work is done by responsible teams to process such messages (even if they do not answer them but just open and read), hence, it is important to learn how public sector institutions deal, answer, and process private messages from social media.

However, there is almost no research specifically concentrating on how institutions interact with citizens via a direct messaging function. It might have happened because messages are not accessible publicly and are available only in private chats. Hence, academics could not access them for their analysis. However, without learning how users' private messages are processed by organisations, the study on the use of social media by the public sector is not complete.

Moreover, an expectation for governments to be available and responsive around the clock challenged not only the usual editing processes (Mergel, 2012a, p. 283) of the public sector. It also prompted governments to re-evaluate their organisational capacities as the growing amount of work in numbers of citizens' comments and messages require appropriate decisions on the division of responsibilities and its allocation among personnel. However, organisational and institutional aspects of public administration rarely became a separate object of study. Most often details on an editing process in providing materials for social media and the questions on how responsibilities are divided into teams were touched upon only tangibly in a framework of other pieces of research. Thus, study on how public sector institutions can organise their work to deal with citizens' messages and comments is valuable in order to increase the government's ability to build an effective dialog with citizens online.

Finally, analysis of social media usage in the public sector is frequently reduced to a local level (e. g., Hofmann et al., 2013; Lovari & Parisi 2015; Reddick et al., 2017; Bonsón et al., 2017). Such tendency might be caused by a conviction that citizens are more engaged in public affairs on a local level (Mossberger et al., 2013, p. 351). Central executive institutions have become the focus of fewer studies which were done, in particular, by Mergel (2012a, 2012b, 2013a) and Snead (2013) who were analysing federal agencies of the executive branch in the U.S. However, they all are investigating the practices of the United States of America. In this regard, there is a prevailing number of studies on the topic of social media in the public sector in Northern America (e. g., Mergel, 2013a; Mossberger et al., 2013; Meijer & Thaens, 2013; Snead, 2013; Gintova, 2019) and Western Europe (Hofmann et al., 2013, Bonsón et al., 2012, 2017). Research on the social media used by central governments in Central and Eastern Europe (and part of Northern) are much scarcer. Bonsón et al. (2017) explain this by the political, economic, and sociological differences of this European region due to the past influence of the USSR.

Thus, this paper aims to fulfill an identified gap in the academic literature on the use of social media in the public sector. By learning how the government of Estonia processes citizens' voices (messages and comments) on social networking sites, the thesis will contribute to satisfying a need in the analysis of organisational aspects of communications teams' work and the work of executive institutions of Northern Europe. The analysis of the public sector of one of the leading countries in e-Government might be useful for academics and government practitioners responsible for ensuring timely responses to citizens' messages and comments on social networks.

1.2 Objective of the work

Hence, this paper is aimed at analysing how the government of Estonia organise itself to provide two-way communication with citizens on social networking sites. Thus, **the research question** is:

How does the Government of Estonia organise itself to deal with citizens' voices (comments and messages) on social networking sites?

a) How are institutional responsibilities for two-way communication with citizens on social media divided in the institutions comprising the Government of Estonia?

b) How do the institutions that comprise the Government of Estonia process citizens' messages and comments on official accounts on social networking sites?

By addressing these questions, this paper aims to fulfil such objectives: First, it will shed light on how citizens' messages and comments from social networks are processed by responsible organisations. Secondly, it will collect insights on how an institutional structure is built in a public sector agency to be able to proceed with such work. Finally, the thesis will contribute to the research on the public sector in Northern Europe. Hence, the obtained results about one of the leading countries in e-Government will be of help for managers working with social media in public sector institutions on both levels – government and local. It will help to increase the public administration ability to build an effective dialog with citizens online, satisfy their growing needs for direct communication with the government, and facilitate citizens' empowerment and engagement.

1.3 Structure of the work

The paper starts with the literature review which has identified previous research on the usage of social media by the public sector. First, it will be outlined how social media changed a user and what expectations it brought for the public sector. Moreover, it will shed light on previous studies about how public institutions (can) exploit social networking sites, in particular for bi-directional communication with citizens. Finally, it will be examined which institutional structures academics observed in government teams involved in social media communication with users. Then, a theoretical framework of a three-stage adoption process of social media in government by Mergel and Bretschneider (2013) that has been applied in the paper is described. Following that, a methodology of the analysis is introduced employing an embedded, qualitative case study approach with mixed methods of a structured interview, document and social media analysis. Finally, the results and discussion of this study on how the Estonian Government process citizens' voices from social media are presented.

2 Literature review

2.1 Citizens on social networks expect two-way communication from public administration

This section will introduce how a new generation of Web technologies impacted a user and what changes in his expectations and requirements, in particular to the public sector, it generated.

Web 2.0 and social media have changed the way of how people interact and behave on the Internet (Campbell et al., 2014, p. 655). New Web technologies had replaced a previous generation of static pages, passive users, and a limited interactive component with richer opportunities for user interaction (McNutt, 2014). In practice, it meant a "fundamentally different philosophy" (Cormode & Krishnamurthy, 2008) of a user's role in a system: From previously passive receivers of information, they now became its active co-developers and co-producers (Meijer & Thaens, 2010; O'Reilly, 2007; Reddick & Norris, 2013), thereby making a user-generated content a vital element of Web 2.0 (Constantinides & Fountain, 2008, p. 233).

Besides the expanded potential for content creation, interaction among users became easier (ibid), hence possibilities for networking have increased (Magro, 2012). Users on social media can create personal profiles, provide their friends with access to them, send messages to each other (Kaplan & Haenlein, 2010, p. 63). They can also create thematic groups, exchange content of any format, and comment on it (McNutt, 2014, p. 52). As a result, such functionalities facilitate the flow of ideas and knowledge in the audience and increase the influence of peer opinions on a user (Constantinides & Fountain, 2008, p. 239). It prompts scholars to associate a new generation of technologies with a social or participatory web (Picazo-Vela et al., 2012, p. 505).

Besides such "collective intelligence" (O'Reilly, 2007, p. 26), Web 2.0 technologies also create an "architecture of participation," O'Reilly (2007, p. 17) underlines. In particular, Mexican public servants who were interviewed in the framework of the study on the perceived values of social media usage by Picazo-Vela et al. (2012) called the development of "a culture of citizen participation" among one of the main benefits of social media. Hence, researchers usually conclude that Web 2.0 technologies lead to such positive phenomena as openness, collaboration, interactivity, co-creation, and democratisation (Constantinides & Fountain, 2008; McNutt, 2014; Bonsón et al., 2017; Picazo-Vela et al., 2012; O'Reilly, 2007; Kaplan & Haenlein, 2010).

Most importantly, new technologies empowered a user, scholars underline. As technological development enabled people to produce and share content immediately in real-time (McNutt, 2014; O'Reilly & Battelle, 2009), they received an opportunity to speak up in front of a numerous audience, deliver their opinions, report problems, and see the immediate reaction to it. Bertot, Jaeger, and Grimes (2010) denote that citizens are often willing to discuss or report problems affecting the community (p. 55), hence they may want to use new technologies for these purposes – to notify others or write about it to a government authority. This tendency was even more accelerated due to the increased proliferation of mobile devices and the Internet (McNutt, 2014). Such inclinations were proved by the research of Lovari and Parisi (2015) who explored the motivation of followers to decide to join Facebook pages of Italian municipalities. "To share their public voice with other digital publics" (ibid, p. 209) was among three main reasons to follow a social media account of a local government mentioned by 67.3% of responders.

Hence, social media users are striving to be equal participants in decision- and policy-making, scholars conclude (Shan et al., 2015; Constantinides & Fountain, 2008, p. 243; Kaplan & Haenlein, 2010), and expect that social media will be used as platforms for conversations with public sector agencies on up-to-date topics (Lovari & Parisi, 2015, p. 209). Hence, it is no longer enough for users if public sector institutions are only present on Facebook or Twitter, but citizens expect that government agencies would interact with them there (Bonsón et al., 2017, p. 321). In the words of Reddick and Norris (2013), "With Web 2.0 and social media information is co-created, citizens demand services, policy is negotiable, and governance is shared" (p. 498).

In this regard, one of the key changes brought by Web 2.0 technologies is that they have simplified access to any entity and gave citizens opportunities to reach out to any public institution directly with their private messages or public comments on social media. With their instant messaging or commenting functions intrinsic to it, a user does not need to send an official paper query to a public administration institution and wait for a couple of weeks anymore. In this sense, Shan et al. (2015) suggest that social media became another channel of organizations' query and complaint services (p. 107).

Moreover, due to new technological developments, citizens expect that governments would be reacting to such their voices in real-time. Scholars denote that users got used to receiving information on the Internet immediately, thus, they expect the same from public administration (Lovari & Parisi, 2015; Mergel, 2012a). Namely, this was illustrated by an information manager interviewed by Shan et al. (2015) who described that users now unconsciously expect that their queries will be answered by a public administration agency at any time of the day (Shan et al., 2015, p. 105). "Real-time search encourages a

real-time response," O'Reilly and Battelle (2009, p. 9) express this shift in attitudes. Hence, public sector institutions need to change their social media tactics, internal processes and adjust their organisation capacities to keep up with users' expectations. Lee and Kwak (2012) define such a guideline to government as a "RESPECT principle: Reply promptly to public comment" (p. 502). Inability to provide such an immediate response might lead to reputational risks to a public sector institution (Mergel, 2012a).

Moreover, citizens expect governments to use their input delivered on social media, scholars denote. If their suggestions do not result in any impact, it may lead to distrust towards a public sector institution, Bonsón et al. (2017, p. 337) states. Hence, public administration should listen to citizens' voices on social media in order to learn their opinions and problems (Bonsón et al., 2012, 2017), academics highlight. Overlooking this opportunity to understand citizens' needs and not engaging with users leads to missing marketing opportunities for the public sector (Snead, 2013, p. 62).

Hence, Web 2.0 and social media empowered a user who got used to two-way communication and real-time response. Moreover, with the possibilities of social media, a user obtained a direct and simple channel to reach a public sector institution. Hence, any government joining social networks will inevitably need to decide on whether to respond to citizens' voices. This consequently leads to another question – on *how* this work with citizens' voices from social media is and should be conducted in a public sector agency (Hofmann et al., 2013).

2.2 Public sector organisations do not fully exploit the potential of social media

This section is dedicated to the topic of the use of social media by the public sector and will introduce a perspective of public administration on the advent of Web 2.0. It will be discussed what benefits social media brought for the public sector and how governments exploit them and what drawbacks in their usage were observed by researchers.

A proliferation of social media leads to a row of benefits for public administration. First and foremost, social networking sites constitute an effective instrument of reaching the public, scholars point out (Meijer & Thaens, 2013). Social media applications made communication with users more efficient and cheaper in comparison to traditional channels (Picazo-Vela et al., 2012, Kaplan & Haenlein, 2010, p. 505). This is especially viable regarding a constantly growing audience of social media users. In particular, in 2020, social media users accounted for over 3.6 billion people worldwide (Tankovska, 2021). As more citizens are going online, the adoption of social media by public

administration is an opportunity to go "where the people are" (Mergel, 2013a, p. 127; Bonsón et al., 2017, p. 322) and inform them about an institution's activity and its news.

In addition to that, scholars foresee that by employing social networking sites, the public sector is able to learn opinions, needs, and expectations of citizens-customers (Constantinides & Fountain, 2008, p. 233; Mossberger et al., 2013), as well as solicit knowledge from them in real-time to improve the quality of their services, policies, and programmes, and to make reliable decisions (Lee & Kwak, 2012, p. 498; McNutt, 2014, p. 56). Indeed, the respondents of Meijer and Thaens (2013) in three North American police departments highlighted the importance of citizens' input through social media for the execution of direct police tasks such as detection and prevention of crimes (p. 347).

Consequently, such cooperation with citizens leads to increased transparency and accountability (Picazo-Vela et al., 2012; Reddick et al., 2017), engagement of citizens and coproduction (McNutt, 2014), public participation and collaboration (Lee & Kwak, 2012, p. 492), the quality of government services, and the institutional ability for its delivery (Eggers, 2005, as cited in Meijer & Thaens, 2010, p. 114). Moreover, as social media enabled immediate communication and obtaining of information, such applications can be and are used by the public sector in crises (e. g., Magro, 2012). For instance, the Metropolitan Police Department in Washington DC investigated by Meijer and Thaens (2013) used Twitter to solicit information from citizens during an occurrence of an earthquake in 2010.

Furthermore, providing interaction with citizens on social media by public administration promotes a better perception of government, Magro (2012, p. 151) stresses. Governments also reported strengthening of their public image and corporate branding as an obtained value from social media usage (Meijer & Thaens, 2013), researchers found out. This is testified by the study of Picazo-Vela et al. (2012): The public servants in Mexico, who were interviewed by the authors, reported that better feedback, collaboration, and communication with citizens on social media resulted in the improvement of the political image of governments, thereby "legitimizing their decisions and giving them more credibility" (Picazo-Vela et al., 2012, p. 509). As a result, it facilitated the increase of trust towards public sector institutions (ibid, pp. 505-506). At the same time, such interaction with citizens on social media prescribes that two-way communication with users is done by public sector institutions.

However, scholars indicate that most organizations employ prevailingly "a push strategy" (Mergel, 2013a) and use social networks as a one-way communication tool – primarily for dissemination of the information about an institution and its news (Campbell et al., 2014, p. 656; Mergel, 2012a). Namely, Reddick and Norris (2013), investigating the

adoption of social media by the U.S. local governments, found out that the institutions predominately exploited social networks in one direction: government to citizen (p. 504). "Most e-Government processes are stuck at the stage where they are merely disseminating information, instead of allowing for true interactions and engagement," Mergel (2012a, p. 286) concludes. In such a case, social media are exploited only as a supplement to the traditional methods of one-way communications but not as an independent and important communication channel (ibid). Hence, researchers underline that that public administration does not fully exploit all possibilities brought by Web 2.0 and social media (Hofmann et al., 2013).

Furthermore, public administration lacks knowledge on how they can exploit social media and public engagement enabled by it (Lee & Kwak, 2012, p. 492). As Campbell, Lambright, and Wells (2014) found out in their research, organizations involved in delivering public services for citizens in the United States of America mostly had a limited understanding of social media's potential or lacked a long-term vision of its exploitation. Instead, most of the institutions among nonprofit organizations and county departments that the authors analyzed used social media primarily for market organizational activities, such as raising awareness of the public. The same aim – of increasing public awareness – was one of the primary reasons to use social media for some of the U.S. Healthcare Administration agencies analysed by Lee and Kwak (2012).

At the same time, misuse of "push" tactics does not correspond to the spirit of Web 2.0, researchers underline (McNutt, 2014). Scholars stress that social media offer much broader functionalities to enhancing interaction for governments rather than simple dissemination of information (Mergel, 2012a, p. 286). Scholars argue that the public sector on social media should seek real engagement with users and citizens' participation (Bonsón et al., 2017, p. 321; Brainard & McNutt, 2010; McNutt, 2014; Constantinides & Fountain, 2008). For this, "a direct and personalised way" (ibid, p. 233) of two-way communication is needed to be guaranteed for social media (Bonsón et al., 2017) replacing a "press-releases style" (Mergel, 2013a). The latter becomes not appropriate anymore in the interactive era of Web 2.0 (ibid).

In this regard, researchers (e. g., Picazo-Vela et al., 2012) point out that it is necessary to change organisational practices, culture, and managerial approaches by public sector institutions. In particular, the study of Meijer and Thaens (2013) on social media usage in three North American police departments testified that adoption of social media in a public sector organisation does not inevitably transform it into a "user-generated" agency. However, there is a path-dependency observed as social media strategies are applied to the existing routines and organizational arrangements (ibid, p. 349). In this line, Mergel

(2012a) points out challenges that hinder innovation strategies in hierarchical institutions with regulated and top-down decision-making (Meijer & Thaens, 2013, p. 343).

In addition, scholars highlight another problem – organisations do not fully understand the objectives of social media use, and there are no guidelines or strategies developed (e. g., Margo, 2012; Bonsón et al., 2012, 2017; Meijer & Thaens, 2013). For example, Picazo-Vela et al. (2012) found out in their study on the values of social media usage as perceived by public servants from Central Mexico that governments do not have a clear strategy of exploiting social media sites. Thus, based on the comments from the study participants, the authors concluded that a good implementation strategy as well as updating laws and regulations is necessary to garner all benefits of social media usage and to avoid risks (Picazo-Vela et al., 2012, p. 504). Similar results were obtained from the analysis of the European local governments by Bonsón, Torres, Royo, and Flores (2012). The authors' findings showed that Web 2.0 and social media were exploited to enhance transparency, but two-way communication and promotion of e-participation were in infancy (ibid, p. 14). Without the strategy, adoption and exploitation of social media depend on circumstances and personal attitudes of public sector managers (ibid, p. 336). This statement is also illustrated by the study of Meijer and Thaens (2013): The adoption of social media strategies in three police departments of North America was influenced by situational characteristics, existing routines, and organizational arrangements, thereby leading to different models of its exploitation (p. 349).

Furthermore, governments have little experience on how to extract innovative knowledge out of the exchanges with citizens on social networks, Mergel (2013a, p. 130) stresses. "It is unclear to what extent the information that flows into government is governed, processed, used and how the government acts on information that is created with and among their audience members in conversations on social media platforms," the researcher (ibid, p. 130) points out. Bertot et al. (2010) corroborates this idea stating that there is a lack of understanding on how public administration can incorporate the obtained information from social media interaction into governing (p. 56). He denotes that such work on processing citizens' feedback and its incorporation require establishment of specific processes and mechanisms inside an office (ibid). This is echoed by Margo (2012) who concludes that there are very few government agencies that managed to apply the citizens' feedback from social networks into practice (ibid, p. 156).

Thus, among others, the author recognizes that it is necessary to study how and why users' input does not transform government agencies; what types of public sector institutions are more inclined to seek citizens' feedback, and what objectives for the interaction with citizens agencies pursue (ibid, pp. 156-157). Similarly, as directions for future academic

research, Mergel (2013a) highlights the necessity of investigating the two-way communication on social media and their impact on government: "Do they help government organizations to increase the quality and effectiveness of their processes by including diverse opinions?" (ibid, p. 129), "How do social media interactions instill innovative knowledge and ideas into government? To what extent can government channel the knowledge into actionable knowledge?" (ibid, p. 130).

Hence, many researchers conclude that public sector institution should clearly understand their goal of using social media; for this purpose, the social media strategy should be defined (McNutt, 2014; Margo, 2012; Bonsón et al., 2012, 2017; Meijer & Thaens, 2013). "Government social media use should be planned, fair, promote engagement, and promote transparency," Magro (2012, p. 152) summarizes. The social media strategy should include decisions in four aspects: technological choices, organisational tasks, the identification of objectives, and the division of responsibilities, Meijer and Thaens (2013, p. 344) corroborate. Thus, it will help an institution to understand what media to use, what information to publish there, how these tasks will be performing, and what to do with the users' reactions (ibid).

Thus, with the proliferation of social media and its increasing audience, a necessity to adopt social media by public sector institutions is no longer questioned (Faber, Budding, & Gradus, 2019). Hence, if previously, a predominant direction of studies on social media in the public sector was concentrating on learning why and how public administration committed to adopting Web 2.0 technologies (e. g., Mergel, 2013b, 2014; Reddick & Norris, 2013), it is important now to analyse into more details how social networking sites are exploited by the public sector. Governments should learn how to communicate with users in order to satisfy their demands for more two-way communication, participation, and engagement.

2.3 How does the public sector conduct two-way communication on social media?

As a user's demand to the public sector to ensure the two-way communication on social media has strengthened, it is necessary to understand how public administration institutions react to citizens' voices on their networking sites. This section is aimed at exploring how users' messages and comments on social media are processed by government institutions.

Although there is a plethora of studies on how social media is used in the public sector, there is limited research on how two-way communication is conducted by agencies. Prevailing, a topic of how government reacts to citizens' voices is touched upon only tangentially in analyses on social media strategies adoption and exploitation of networking sites in public sector organisations. For example, Picazo-Vela et al. (2012), in the framework of their research on the perceived risks, benefits of social media applications, and strategic guidelines among Mexican public servants, found out that among the most important benefits are those concerning citizens' inputs. In particular, public servants praised that social media can "act as a direct communication channel between the citizen and the government," encourage effective collaboration between them, and allow feedback from users (ibid, p. 508, Table 2). Hence, it is important for institutions to "accept the challenge for direct citizen communication and collaboration" (ibid, p. 509, Table 3), scholars reveal. Based on the study, the researchers come up with a set of recommendations for the public sector institutions, one of which proclaims that it is necessary to monitor information and comments about the government on social media (ibid, p. 510). However, their study does not touch on the questions on how this interaction with users on social media should be conducted by government agencies.

Similarly, the ways of how organisations work with citizens' voices were covered partly in the study of Lee and Kwak (2012) on open government cases in the U.S. Healthcare Administration agencies. One of them, the Food and Drug Administration Transparency Initiative, collected users' comments from their social networking sites (Facebook, YouTube, Twitter, and Flickr) and websites (ibid, p. 495). However, speaking about social media two-way communication, the authors focus upon only a commenting function, and there is nothing said about how organisations should work with citizens' messages. Although Lee and Kwak (2012) mention the term "web dialogues" (p. 498) as an intrinsic feature of a Level 3 of their Open Government Maturity Model, they do not specifically clarify what is meant by such dialogues. Eventually, based on their study, the scholars provide a set of guiding principles for effective use of social media. The first of them points out a necessity of replying promptly to public comment for government agencies (ibid, p. 502).

More information in this line is provided by Meijer and Thaens (2013). Having analysed the adoption of social media strategies in three North American police departments, they describe how differently these public organisations work with citizens' comments and messages. In particular, the authors found out that citizens used different media for contacting the police, however, did it, primarily, via phone or text messages (ibid, p. 347). Toronto Police Service practices "a networking strategy" (Mergel, 2013a) of social media usage, and reacted on received signals from citizens: "If we got requests from citizens

about where to do the enforcement for speeding, we'd go there and do the enforcement" (Meijer & Thaens, 2013, p. 347). Another police department (Metropolitan Police Department, Washington DC) monitored users' reactions on Twitter, however, the organisation did not strive to use this network to solicit information from citizens and encouraged them to report crimes via other channels (ibid). A similar practice has been observed in one of the food safety and nutrition area organizations from the United Kingdom and Ireland investigated by Shan et al. (2015): This agency "did not perceive social media as a suitable channel for handling complaints" and "tended to redirect complaints to telephone and e-mail" (ibid, p. 106).

The study of Shan et al. (2015) is one of a few focusing primarily on two-way communication. The authors examined the use and impact of social media on bi-directional communication in five public organisations and specifically focused on their commitment to deal with messages and comments from citizens (ibid). As a result, the researchers revealed a "gradual shift toward social media-based queries and complaints" (ibid, p. 104), as most of the interaction of the organizations with the public were triggered from the side of consumers who sought information or delivered complaints (ibid, p. 105). Noticeably, that the number of voices from citizens increased on social networks (Facebook and Twitter) in comparison to phones. Speaking about the practiced approaches, in one organization, employees used the messaging function on Facebook to reach a person directly if his public comment touched sensitive issues (ibid, p. 106). However, although this research provides important insights, it does not relate to public sector practices and focuses on a narrow sphere of the food safety and nutrition area.

Two-way communication is considered by researchers as an inherent way of social media exploitation in the early stages of its adoption by governments. For example, based on the study of the U.S. federal healthcare administration agencies, Lee and Kwak (2012) proposed an Open Government Maturity Model which serves as a guidance and assessment measure in the implementation of open government initiatives (ibid, p. 492). It consists of five maturity levels: initial conditions, data transparency, open participation, open collaboration, and ubiquitous engagement (ibid). Two-way communication – answering users' comments and private messages – is expected to be conducted on the third level of open participation. "Level 3 opens the government to the public's ideas and knowledge. The Level 3 agency strives to bring anecdotes, stories, conversations, ideas, and comments from the public to everyone's attention" (ibid, p. 498). At this step of social media adoption, agencies are expected to use mainstream social networks (e. g., Facebook and Twitter) for "interactive, on-going conversations, story-telling, and communications" (ibid, p. 497, Table 2), and to be able to respond to the feedback from users timely and consistently (ibid, p. 498). Thus, due to these capabilities and efforts undertaken by a

public sector agency, the public becomes engaged through "on-going, community-based conversation, and discussion" (ibid). As a result, an increased sense of community is formed and centered around a government agency, researchers conclude (ibid).

According to Mergel's framework (2013a) of social media strategies in the public sector, two-way communication is already a signal of the second strategy ("pull"). Mergel (2013a) discerns three tactics of social media exploitation by public administration: With "a push strategy," the behavior of an organisation on social media is limited to only the representation of an institution on different platforms thereby reaching their audience. When an agency intends to engage with the public and solicit information from users, there is another approach in place – "a pull strategy" (ibid). Finally, there is "a networking strategy" possible that combines elements of both previous tactics "but also leaves room for engagement beyond active involvement of government" (ibid, p. 129).

In a case of "a pull strategy," social media serves as a channel for citizens' input for an institution employing this strategy (Meijer & Thaens, 2013, p. 344, Table 2). For example, agencies exploiting this tactic encourage citizens to co-produce content with its consequent replication on agencies' websites (Mergel, 2013a, p. 128). The agency, in this case, allows people to openly comment on Facebook, and then it looks through such public messages and may solicit feedback from users by asking questions with consequent follow-up (ibid). This bidirectional responsiveness is even more strengthened in "networking agencies" that produce feedback cycles and provides their social media applications as a platform for conversations and knowledge exchange (ibid). Hence, a proper organization of work on providing two-way communication with citizens is one of the first questions public administration institutions need to deal with in developing their social media strategy.

At the same time, the researcher sheds light on the reasons why a government might decide to not engage in two-way communication with people and shut off social network functions enabling citizens to express their reactions (e. g., messaging and commenting functions on Facebook). This is the case of conservative organizations with "a push strategy" (Mergel, 2013a). Agencies exploiting such an approach do not track how followers react to their posts, whether they repost them, and how they use them further as they do not find social networks useful.

Besides this, there are also other challenges that hinder public administration institutions from conducting two-way communication on social networking sites identified by scholars. Namely, on the example of five open government cases in the U.S. Healthcare Administration agencies, Lee and Kwak (2012) state that policies and rules existing in organisations can be incompatible with social media usage (ibid, p. 499; Bertot et al.,

2012; Mergel, 2012a). Moreover, it might be difficult for some organisations to respond to citizens' comments timely as maintaining blogs or managing multiple communication channels (Lee & Kwak, 2012, p. 500) requires substantial time and resources (ibid, p. 493). Hence, Shan et al. (2015) point out that personnel who are in charge of processing citizens' voices must be properly trained. Several scholars (Shan et al., 2015; Bertot et al., 2010) also revealed the privacy and confidentiality issues behind the reluctance of government institutions to engage on social networks.

Academic research on how two-way communication is conducted by public administration agencies is, however, limited, to only publicly available information – to comments and messages published on their pages. For example, scholars, studying social media usage in the public sector, pay attention to the content of government accounts by investigating what type of messages are posted by organisations or how often they engage with the audience (Campbell et al., 2014). For instance, Bonsón et al. (2017) analyse how Western European municipalities use Facebook from two aspects: citizens' engagement and municipalities' activity (p. 320). Similarly, Hofmann et al. (2013), studying the use of social networking sites for communication with citizens by local authorities in the 25 largest German cities, examine the content of the government posts and users' comments on these Facebook pages. Moreover, Lovari and Parisi (2015) investigate users' behaviour on Italian municipalities' social networks. However, the researchers do not focus on how comments and messages are processed in public administrations.

Hence, studies offer only a limited view towards two-way communication in the public sector as they mostly concentrate on the publicly available comments and lacks insights on how citizens' messages which are sent and answered privately are processed. A primary reason for it might be in the accessibility of information – only comments and posts are publicly available whereas the content of citizens' messages to agencies is hard to reach as they are hidden from the public (Shan et al., 2015).

From this point of view, comments on a variety of different social media are usually analysed by scholars, primarily on Facebook (e. g., Bonsón et al., 2017; Zhang & Lin, 2015; Hofmann et al., 2013; Lovari & Parisi, 2015; Reddick et al., 2017) and Twitter (e. g., Gintova, 2019; Meijer & Thaens, 2013; Mossberger et al., 2013; Campbell et al., 2014). At the same time, a messaging function is inherent mainly to Facebook. In Twitter's case, as Mergel (2012b) describes, direct messages on this platform can only be sent to those accounts that follow a user back and sent directly to the e-mail account associated with the Twitter account (p. 38). Thus, as most government organisations do not follow citizens back, users cannot send agencies a private message on Twitter, but only to leave a public comment (ibid).

Thus, there is a growing need for public sector institutions to learn how to exploit social media more interactively (Reddick & Norris, 2013) in order to ensure two-way and real-time communication with their audience and to satisfy its demands for increased engagement. For this, a detailed examination of all aspects of an organisation of such work is needed, one of which is how the institutional structure in a government agency is built. A proper division of responsibilities inside a team is one of the keys to ensuring the effective performance of tasks of social media teams in a public administration institution which will help garner the full potential of a new generation of Web technologies.

2.4 Two-way communication on social media requires a proper organisation of work

In the next section, it is reviewed how responsibilities are divided in public administration agencies or their teams that are responsible for social media management and processing citizens' voices from social networks.

An institutional capacity of an agency and a proper organisation of work are recognised by scholars as one of the most important factors which enable a public sector organisation to provide two-way communication on social networks. At the same time, it is identified as one of the most crucial challenges for it. Based on the example of social media strategies in three U.S. departments, Mossberger, Wu, and Crawford (2013) revealed a problem that the provision of two-way communication with citizens requires the appropriate institutional decisions on how to organise this work. Officials in the analysed institutions encountered questions on "how to moderate discussions on social media, how to set ground rules for public participation and for employees, and how to keep records of public comments" (ibid, p. 355). Hence, the authors pointed out that two-way communication on social networks requires time and management from an institution (ibid, p. 356). This is echoed by McNutt (2014) who states that organisational, cultural, and administrative are the main implementation barriers to social media adoption rather than technological (p. 49). Similarly, Bonsón et al. (2017) foresee that the lack of the necessary administrative capacity in local governments to engage in two-way communication on social networks may lead to clashes with citizen demands (p. 326).

This corresponds to the findings of Campbell et al. (2014) who studied the barriers of why organisations are reluctant to adopt social media and decide not to use it. Based on the example of non-profit organisations and county departments involved in the delivery of human services in New York State (the USA), the authors revealed that among the main barriers to use social media were the lack of expertise and the staff/equipment

capacity to manage social media (ibid, p. 661, Table 4). These factors were the most prevailing issue preventing organisations from social media exploitation (13% of the overall results on the barriers to using social media cited indicated by interviewees) (ibid).

These findings correlate with the study of Picazo-Vela et al. (2012) who analysed the value and barriers of social media usage as perceived by Mexican public servants. The authors, in particular, discern social media governance (right, responsibilities, and rules) as one of the important components to consider in the development of a strategic plan by a government agency (ibid, p. 506):

> "Organizational structures and processes include both the way organizations are structured (hierarchical levels, size, etc.) and the processes and strategies used in daily operations by organizations. Organizational structures affect the performance of organizations... In a similar way, organizational processes such as planning, training, or performance measurement affect both the characteristics and the outcomes of social media use" (Picazo-Vela et al., 2012, p. 507).

The authors stress that administration-specific requirements are one of the most crucial barriers to the adoption of social media by the public administration. Although the scholars are speaking about the institutional capacity to run social media accounts, this statement equally relates to the provision of two-way communication on these platforms. Indeed, the interviewed Mexican public servants (IT personnel, webmasters, contact persons in federal, state, and local agencies) were foremost concerned about having personnel who knows how to respond to citizens' voices (ibid, p. 508). Furthermore, the participants of the survey were worried whether a bureaucratic process for responding to citizens would be effective to provide the expected performance of interactions on social networks. Additionally, they pointed out that the lack of inter-organisational communication and bureaucracy could negatively impact the collection of data and information in order to reply to a citizen (ibid, p. 508).

Thus, the authors concluded that governments adopting social media should build proper organisational capacities in process integration, inter-organisational collaboration, knowledge sharing, and employee training (ibid, p. 510). Moreover, it is necessary to develop guidelines for the use of social media. Before implementing new social media tools, agencies should understand what to post, how, when, and how often, the authors underline (ibid). Moreover, they call on organisations to ensure that responsible personnel have time for updating social media accounts to prevent their overload (Mergel, 2012a).

In this line, Lee and Kwak (2012), having analysed open government cases in the U.S. Healthcare Administration agencies, stress that engagement on social media demands

"investments in terms of human resources, time commitment, and network infrastructure" (ibid, p. 501). In particular, effective management processes, governance structures, and skilled employees are required for the management of multiple online accounts used in agencies (ibid, p. 500). Hence, they recommend allocating dedicated personnel to specific initiatives to ensure continuous monitoring and maintenance (ibid, p. 501) and to handle users' messages and comments (ibid, p. 500). The same recommendation is drawn by Snead (2013) who states that agencies utilizing social media for public participation should have dedicated personnel to engage with the public (pp. 62-63).

The authors indicate that the more complex social media technologies government agencies adopt, the more technical and managerial complexity increases (Lee & Kwak, 2012, p. 496). Thus, they stress that organisations should invest in acquiring new skills, training employees, purchasing technologies, and upgrading network infrastructure (p. 493). The need to have specialized skills by the personnel of government agencies that adopt new social media technologies is also underlined by Margo (2012). Hence, training of employees is called one of the essential steps in the adoption of social media in a government organisation and its social media strategy (Lee & Kwak, 2012; Mergel, 2013c).

In line with the previously mentioned studies, Mergel (2013c) highlights the importance of the organisational aspects in the work with social media in the public sector. She argues that among the questions that government agencies shall decide upon to use social media are those that directly touch the division of responsibilities and tasks in an institution (ibid, p. 26). She stresses that managers must consider the internal roles, the distribution of the workload, and responsibilities for decision-making (ibid, p. 27) inside an organisation. Among such tasks that should be defined are the creation, provision, and verification of the content, and responding to citizens' voices:

> "What are the content review requirements and how do they align to promised response to set audience expectations? Who must be involved when content is ready for posting? Does your agency have a counsel, lawyers, or public affairs officers who need to approve content, or can some of updates be routinized, such as press releases or official announcements?" (Mergel, 2013c, p. 27)

Furthermore, Mergel (2012a, p. 287) recognises that a way how an editing process of work on responses to citizens' voices is structured impacts how fast such answers are given. If it is rigorous which are intrinsic to traditional public relations, then the responsiveness of a government agency can be slowed down (ibid, p. 287). Therefore, public sector institutions should adapt their organisational procedures and managerial

approaches to keep up with an expected high speed of interaction on social networks (ibid).

Notably, she proposes the development of online etiquette which can define what is treated as appropriate from users by an agency on social networks. Hence, such policy might allow deleting comments from users if they do not respond to the defined requirements:

> "("Netiquette") and comment policy … states specifically what the acceptable online conduct is for the agency. The commenting guidelines should include directions for the type of comments that will be excluded and deleted from an official government channel, including explicit language, discriminatory statements, threats, hate speeches or endorsements of services and products" (Mergel, 2013c, p. 28).

At the same time, the researcher provides useful recommendations on how the work upon two-way communication can be structured in an agency. In particular, she claims that the function of a content provider may not be limited to only one department but can be distributed across different departments or programs in the whole organization (ibid, p. 27). Such practice was observed in the Toronto Police Service investigated by Meijer and Thaens (2013). The department employed a social media strategy according to which individual officers and various divisions had their own responsibility for using social media (ibid, p. 347). Hence, for example, tweets of individual employees were not authorized. At the same time, there was one department supporting the use of social networks by divisions and individual officers (ibid, p. 348). Corporate Communications helped the divisions to develop strategies and conducted training for police officers to use social media (ibid). Such an approach corresponds to a "networking agency" strategy of social media usage (Mergel, 2013a) where "social media are used to build networks between individual police officers and citizens" (Meijer & Thaens, 2013, p. 348).

The study of Meijer and Thaens (2013) is one of a few examples of the research focusing on specifically the institutional responsibilities in public sector organisations regarding its usage of social networks. In the example of three North American police departments, the authors describe in detail how the work with social media is structured in these agencies and who is in charge of the management of social media accounts. On the contrary to the Canadian department example, Boston Police Department employed a more centralised approach: The use of social media accounts was controlled by one department, its employees communicate with citizens on these networks on behalf of the organisation, not as individuals. Individual officers were not allowed to write to corporate social media (ibid, p. 346). In Metropolitan Police Department in Washington DC, the overall responsibility is held by the Strategic Services Bureau, "but the specific media are

managed by the responsible unit" (ibid, p. 347). For example, Twitter is run by the Control Room of about 35 persons comprising the Command Information Center staff, top-level managers within the department, and supervisors at the command staff (ibid, p. 347). This personnel is trained to use Twitter and is aware of the protocols. Each tweet also includes a unique badge number of an officer who composed it (ibid). At the same time, they all are read and approved before being published by the Command Information Center (ibid).

Similarly, Mergel (2013a) analyses the institutional aspects and localities of social media managers in the US government agencies and reveals how the responsibilities regarding social media administration can be distributed in government organisations. She identifies that social media can be managed by the IT department – "in departments in which social media is regarded as a technological problem," in the public affairs office – "in departments where it is seen as part of the mission and included in strategic communication efforts;" finally, "knowledge experts" can participate in social media efforts (Mergel, 2013a, pp. 126-127). Additionally, the author found out that the location of a social media director in an organisational hierarchy and resources dedicated to the usage of social media impacted directly the adoption of social media practices – both positively and negatively (ibid, p. 126). However, she mostly focuses on the knowledge sharing among the executive branch agencies ("to what extent departments and agencies observe each other's online behaviour and make the decision to adopt social media practices" (ibid, p. 125)), and does not go into details on how the two-way communication is held and citizens' voices are processed. Although in her other paper, Mergel (2012b) provides guidance for managers about Twitter, there are no recommendations regarding the work with messages on the network as this function on this platform is limited.

Lovari and Parisi (2015) in their study on Facebook use in Italian municipalities also identified different kinds of offices responsible for the management of social networks. In particular, Facebook accounts in municipalities were managed by public relations offices, press offices, ICT offices, etc. This led to different communication strategies employed on these networking pages to engage citizens (ibid, p. 208). This assumption correlates to the findings of the above-mentioned Meijer and Thaens (2013) who found out that social media strategies are dependent on existing communication strategies, situational peculiarities, and organisational structure of agencies. This also corresponds to Mergel (2012a) who points out the challenges in the adoption of new forms of digital interaction in hierarchical, traditionally formal organizations with a top-down decision-making culture.

However, although the above-mentioned researchers directly describe the institutional responsibilities regarding the management of social media in government organisations,

they do not focus on how citizens' messages and comments are being or should be processed. Such studies which cover specifically the organisational aspects of work upon two-way communication on social media inside government agencies are scarce, and there is almost no research regarding the institutional aspects of work with citizens' voices. The aspects of how responsibilities of processing of users' comments and messages are divided in the public sector organisations are usually covered tangentially in studies that are focused on, generally, social media use in the public sector institutions. As the proliferation of social networks in governments has increased, it is important to learn more about how the public sector can utilize new social media tools to increase users' engagement and satisfy their needs in two-way communication effectively (Hofmann et al., 2013). This paper aims to fulfil the identified research gap by analysing how public sector institutions can organise themselves to react to citizens voices' (comments and messages) on social networks.

3   Theoretical framework

For the purpose of this paper aimed at examining how the Estonian government organises itself to process citizens' voices on social media, a theoretical framework of Mergel and Bretschneider (2013) will be exploited. The authors proposed a three-stage adoption process for social media use in government. They look at how organisations adjust to new technological (and consequently citizens') requirements and how such adoption process is institutionalised in an agency. Hence, the scholars argue that the diffusion of social media applications in an organisation is evolving through three stages (ibid, p. 390).

The first stage is "intrapreneurship and experimentation," where new ICT solutions are exploited primarily by individuals in an agency (ibid, p. 391). Hence, it leads to different ways of how such services can be implemented throughout an organization thereby resulting in tensions between private and professional norms (ibid, pp. 391-392). In the next stage, public sector institutions recognise social media and understand a necessity to set up formal rules and procedures of using it which is usually done in a top-down manner. Hence, an "order" is arising "from chaos" (ibid, p. 392). Finally, when an agency has a row of standards, rules, processes, and resources for exploiting social media, it is already on the "institutionalisation" stage (ibid, pp. 392-393).

Moreover, Mergel and Bretschneider (2013) also touch upon a question on two-way communication with social media users in their framework. In particular, they denote that on the first stage of social media adoption, agencies often conduct two-way interaction with citizens as part of experimenting on the forms of communication with users. At the same time, "push" strategies (Mergel, 2013a) with no interaction are also widely used (ibid, p. 393). In the case of the third "institutionalisation" stage, a finalised policy document is in place to regulate how an agency can work with social media, including in its interaction with users (ibid, p. 394). Notably, such documents also prescribe the norms towards citizens' conduct, for instance, on what tones of comments are allowed on an institution's social media page and will be answered (ibid, p. 395). At the same time, scholars assume that the increased level of institutionalisation leads to a decreased level of interaction with social media users (Mergel, 2014, p. 164).

This framework has been selected because it allows fulfilling this paper's objectives. First, it recognises a dependency between a complexity of social media exploited and organisational structure of an agency. As social media inside an organisation evolves and becomes more complex, it impacts an institutional structure of an agency because new channels and functions require more human and time resources (Mergel, 2014, p. 167). Thus, it gives an opportunity to learn institutional aspects of a public administration entity regarding its ability to process citizen's voices. Campbell et al. (2014) discern three types

of theoretical frameworks for studying social media use in government: Those viewing an evolution of social media practices; those concentrating on the content of social media; and those considering social media use as a response to demands (ibid, p. 656). The approach of Mergel and Bretschneider (2013) belong to the first group as it is focusing on organisational aspects rather on the content of citizens' voices messages. Although two-way communication on social media is in the focus of this research, its primarily goal is to study what institutional capabilities and settings allowed the Estonian Government to perform such communications with citizens by analysing how it is done inside each Ministry's team.

Furthermore, the framework is developed specifically for public sector institutions which might be more laggard in adopting new ICT technologies than the private sector. Hence, the authors consider aspects that might slow down the process of adoption of social media in public administration (such as lack of experienced employees in using new technologies, fear to have risks because of new solutions, etc.). This makes this framework suitable for studying the Estonian Government case comprehensively.

Finally, a focus of the framework is condensed to simple social media applications used in agencies such as Facebook and Twitter excluding complex systemwide ICT solutions (ibid, p. 391). Furthermore, it does not concentrate on external factors, in particular, it overlooks *how* the adoption of certain practices was done (ibid, pp. 390-391) or what hinders it. An example of such a complex framework is an approach of Picazo-Vela et al. (2012) which comprised factors that might impact digital government applications. The authors divided them by layers of a general context (e. g., digital divide), institutional framework (e. g., laws), interorganisational collaboration and networks, organisational structures and processes, information and data, and technology (p. 506). Hence, the approach of Picazo-Vela et al. (2012) gives a full picture of all settings of an organisation using social media and possible risks which might endanger it (p. 506). In the case of the framework of Mergel and Bretschneider (2013) employed here, such factors are overlooked intentionally: Thus, it allows concentrating on solely the organisational practices employed in an agency.

At the same time, it constitutes the limitations of this framework thereby resulting in limitations of this paper too. In particular, the framework of Mergel and Bretschneider (2013) does not answer a question on why a public sector organisation is on a certain level of institutional development in its use of social media. By describing the practices exploited in an organisation, it does not cover the reasons how an agency reached this level. Hence, it is impossible to follow the evolution of social media adaptation in an agency but to constitute which stage it is on now.

4   Methodology

The objective of this paper is to study how the Government of Estonia organise itself to process citizens' voices (comments and messages) on their social networking sites and what institutional aspects enable it to perform such work. To fulfil this goal and answer the research questions a qualitative single-case study research strategy has been employed which allows gaining an in-depth and detailed analysis of a phenomenon (Yin, 2009, p. 4). Moreover, a desk research approach has been applied which enabled obtaining additional information on the use of social media in the public sector, including by the Estonian Government, through analysing the previous research on the subject. In addition, a triangulation data collection technique (van Thiel, 2014) has been used to acquire comprehensive data on the selected case: document analysis, a study of official websites and their social media accounts.

4.1   Data Collection

A qualitative embedded (Yin, 2018, p. 52), single-case study strategy has been selected as it gave an opportunity to gain a holistic understanding of how the Estonian Government institutions react to citizens' input on social media. First, it allows employing various methods to obtain necessary data (van Thiel, 2014, p. 86), hence it became possible to learn various aspects of how two-way communication is conducted by soliciting information from different sources. Furthermore, the strategy is relevant for studying real-life events (ibid) and enables capturing details of a "common" situation (Yin, 2018, p. 50) which the social media management by the public sector is. Finally, a single-case study allowed having embedded units of analysis inside one organisation – communications teams of each of the 11 Ministries comprising the government in the country as a whole.

The case of the Estonian government has been selected for exploring how the public sector process citizens' messages and comments on social media due to its openness and responsiveness on social networks. First, the Estonian ministries are exploiting a big variety of social media (Facebook, Twitter, YouTube, Instagram, LinkedIn, blogs) which gave an opportunity to explore two-way communication with citizens in various settings and gather experience of how it is done on multiple platforms. Most importantly, all ministries of the Republic of Estonia have enabled the commenting and messaging functions on their social networking sites, hence, all of them were supposed to have an experience of receiving messages from citizens via social media. Moreover, Estonia is one of the well-known leaders in the e-Government in Europe (European Commission, 2020a, 2020b), hence, its experience in social media use for direct two-way communication with citizens might be also useful for other countries. Finally, the reason why Estonia has been selected for a case study is that the country is a unitary state; thus,

this allows avoiding confusion in analysing the responsibilities of government bodies of different layers as in the case of federal states. In addition, it might be assumed that a central government is the only source that citizens address besides their local authorities the most frequently.

The Government of Estonia itself consists of the Prime Minister and 14 Ministers (Government of the Republic, n.d.) but 11 Ministries (Kriis, n.d.). Three Ministers work as a structural part of other ministries, namely the Minister of Public Administration – at the Ministry of Finance, the Minister of Health and Labour – at the Ministry of Social Affairs. Moreover, the Minister of Entrepreneurship and Information Technology and Minister of Economic Affairs and Infrastructure are the heads of the Ministry of Economic Affairs and Communications. Thus, messages of their sphere of work also appear on social media accounts of the ministries they work in. Social media accounts are administered by communications teams of each ministry and the Government Communication Unit which is responsible for communications of the whole Government and the Prime Minister (State Chancellery, 2020). The structure of the Government of Estonia is summarised in Table 4.1.

In addition, another Government body – Health Board (Terviseamet) – has been taken into consideration for this analysis because it constitutes one of the most followed government agencies in Estonia on social media. The organisation which is an accountable body of the Ministry of Social Affairs of Estonia has 38.8 thousand followers (as of May 2021) on its Facebook account; This is one of the highest results among all public sector institutions in the country. Due to its broad audience of followers and an area of work, it has been assumed that the organisation encountered a high influx of messages and comments from citizens due to the hit of the COVID-19 pandemic in March 2020. Hence, examining the practices of this institution in dealing with an increased number of citizens' voices on social media correlates to the objectives of this paper to learn the case of the Estonian Government – despite the fact that it is not a ministry but is a part of its structure of a lower level (Ministry of Social Affairs, 2021). Hence, a total number of Estonian Government units relevant for this analysis accounted for 13 (11 Ministries together with the Health Board and the Government Communication Unit).

In order to obtain insights on how the internal work on social media communications is structured in these teams, representatives or heads of communications units of each of the 11 ministries, the Government Communication Unit, and the Health Board have been contacted by email. They were inquired whether an academic interview can be conducted. The data about contacts have been taken from the official websites of each ministry. In cases where it was indicated who specifically in a department is in charge of social media

(e. g., the Ministry of Defence), the email has been sent to these personnel; In other cases, an email to the team generally or the heads of departments has been addressed. As a result, 9 out of 13 all units comprising the Estonian government and analysed in this paper (Table 4.1) have responded and agreed to be interviewed.

With regard to time limits and the heavy workload of the government press offices personnel, options of an oral or written interview have been given to be selected by responders. As a result, six interviews with representatives of Estonian ministries' press offices were conducted in a written form, whereas representatives of three ministries have been interviewed online. Respondents were occupied different positions in their teams – heads of departments, advisors, chief specialists, press officers; In addition, three interviewees preferred to respond anonymously, hence, their positions cannot be indicated. A manner of interviewing representatives of ministries is summarised in Table 4.1. The affiliation of responders to certain departments of the ministries and a schedule of the interviews is presented in Appendix 1.

№	Ministry	Ministers or units that are of a ministry	A form of the interview
1	**Government Communication Unit**	The Prime Minister	Written interview
2	**Ministry of Culture**	Minister of Culture	Oral interview
3	**Ministry of Defense**	Minister of Defense	No interview has been conducted
4	**Ministry of Economic Affairs and Communications**	Minister of Economic Affairs and Infrastructure	Written interview
		Minister of Entrepreneurship and Information Technology	
5	**Ministry of Education and Research**	Minister of Education and Research	Oral interview
6	**Ministry of Environment**	Minister of the Environment	Written interview
7	**Ministry of Finance**	Minister of Finance	Written interview
		Minister of Public Administration	
8	**Ministry of Foreign Affairs**	Minister of Foreign Affairs	Written interview
9	**Ministry of the Interior**	Minister of the Interior	No interview has been conducted
10	**Ministry of Justice**	Minister of Justice	No interview has been conducted
11	**Ministry of Rural Affairs**	Minister of Rural Affairs	Written interview
12		**Health Board**	Oral interview
13	**Ministry of Social Affairs**	Minister of Social Protection	No interview has been conducted
		Minister of Health and Labour	

Table 4.1   Interviews conducted with representatives of the Estonian Ministries

In order to diminish differences in obtained results from oral and written interviews, a method of a structured interview has been employed. A defined list of questions for all responders, no matter the form of an interview, ensured that the obtained answers can be compared with each other. Questions of the interview were based on the selected theoretical framework and adopted in accordance with the research questions of the paper. Moreover, the interview questions applied in studies of Meijer and Thaens (2013), Schan et al. (2015), Mergel (2013b, 2014), and Hrdinova et al. (2011) have been used as

exemplary because focuses of their research corresponded to this paper's objective. For instance, Meijer and Thaens (2013, p. 345) studied organisational and operational aspects regarding the use of social media in North American police departments touching upon a decision-making process and internal policies and cooperation among departments. Schan et al. (2015) posted a question to U.S. public sector emergency managers about the commitment of their agencies in dealing with queries and comments from citizens on social media and wondered whether such voices could impact an organisation and in which ways (p. 105). Mergel analysed routine processes on social media use on, in particular, how decisions are made and implemented regarding the online tactics and use of social media in the U.S executive branch departments (2014) and what policies for social media in agencies exist (2013b). Finally, Hrdinova et al. (2011) while interviewing government professionals explored aspects of an editorial process in work with social media and asked who in teams had rights to post content (p. 7). As a result of the analysis of the previous research and in accordance with the research questions, the interview questions of this paper were geared towards two main directions: how the work to process citizens' messages and comments from social media is divided in responsible teams of the government agencies and how this function is performed:

- **The division of responsibilities**: Who in a department is responsible for answering citizens' questions? Are the functions of drafting answers and social media administration performed by different people? Does an agency cooperate with other departments in the Ministry in order to answer messages or comments?
- **Internal regulations:** Does an agency have any guidelines, regulations in place that define how to work on social media and specifically how to answer citizens' questions? Did an agency develop some (oral) policy? What are the names of these documents? When were they developed? Are they being updated?
- **Aspirations behind the work with citizen' voices**: Is an agency obliged by law to answer citizens' messages and comments on social media? What are the reasons why an agency strives to react to citizens' voices? Why did an agency decide to enable a messaging function on Facebook?
- **Editing process:** Are the prepared answers to citizens' messages to be approved by someone before replying? Who does that? Does an agency have any training or workshops to upskill personnel who is responsible for social media?
- **Work with citizens' messages:** How is it decided whether to answer a private message or not? How many messages are usually received on social media? From which platform is the biggest number? How long does it take for a department to reply to a citizen's message, comment?
- **Work with public comments:** How does an agency react to public comments? How is it decided whether to react to public comments or not?

– **Further use of users' input:** What do social media users usually write about? Are suggestions sent by citizens taken in further work? How exactly?

A complete list of questions is attached in Appendix 1.

The data obtained from the interviews have been supplemented with information collected through a desk research strategy and a triangulation approach. First, knowledge on which teams are responsible for communications, what are their structural positions inside the ministries, and what social media accounts, including blogs, an organisation exploit has been acquired from the analysis of ministries' official websites. Furthermore, a document analysis has been used in examining a key document that regulated the communications in the Estonian government – Government Communication Handbook (Government Office, 2018). Additionally, descriptions of social media accounts and blogs along with an introduction to press offices' policies on expected users' conduct therein (if indicated) have been analysed. Also, publicly available data on the number of people who liked and follow a page were gathered from each social media account of the ministries (Bonsón et al., 2017, p. 328). At the same time, following an approach of Goncalves et al. (2015), no more detailed information on users of social media pages of the ministries, such as their geography, gender, age, or other demographic characteristics were taken into consideration in this research. Similarly, the content of posts, citizens' questions, and agencies' answers on social networking sites were not analysed as it is not in this paper's area of interest.

4.2   Data Analysis

Oral interviews have been conducted via the Zoom programme and lasted 20-40 minutes. Interviews were recorded for solely the author's personal use with the permission of responders and transcribed manually verbatim afterward. In a few cases, upon the request of interviewees, transcripts of the interviews have been sent to them for review to ensure the accuracy of obtained information. Moreover, a responder from one of the ministries preferred not to be quoted directly. For written interviews, a defined list of questions has been sent to a representative of a team, and up to three weeks have been given for them to reply. The length of answers was not limited so that a responder could write as much as he/she found necessary or was willing to share.

After transcription, the interviews were coded. First, having reviewed the transcripts, separate topics were discerned, and relevant codes were assigned to these passages of texts. A code, in a definition of Saldaña (2013) is "a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data" (p. 3). In particular, such codes were

identified: the division of responsibilities, internal regulations and intentions behind opening messaging and commenting functions, an editing process, work with public comments, further use of users' input. Consequently, a list of codes has been systematized and grouped into sub-categories of two main categories (ibid, p. 9): organisational aspects and an editing process. The process has been repeated a few times (ibid, p. 8) to ensure that the most salient points were distinguished.

4.3 Limitations

The results of the data collections stage have imposed certain limitations to this paper's deliverables. First, not all ministries of the Estonian Government have responded to the author's inquiry for interviewing, hence, it became impossible to obtain information on the internal practices of these organisations. Hiltz et al. (2014) denote that interviews ought to be not conducted anymore if a certain level of "theoretical saturation" is reached (p. 603). The information from the ministries indeed became similar and their practices started to be recurring in the last obtained results. However, the data from those four units which did not provide their inputs did not allow to create a complete picture of all the practices exploited in the Estonian Government. The information about those institutions is based only on the publicly available data from their social media accounts and websites. Regarding their organisational aspects, the experience from the units that had been interviewed was extrapolated and similar assumptions about them were made.

Furthermore, certain limitations were brought about by a written interview method used as it did not allow extract all the details on the internal practices of agencies. During the oral interview, it was possible to obtain necessary information in more detail by motivating a responder with follow-up questions. In the case of a written interview, such possibilities to extract more facts were limited.

In addition, there was no access to internal documents regarding the conduct of employees or social media policies of the analysed departments. Hence, an understanding of the organisational practices of communication teams has been restricted to only the information that an entitled representative was willing to share during the oral or written interview and could not be verified or supplemented from a document analysis. The same observation concerns the factual information provided by responders. As there was no access to the administration of social media pages of the ministries, no accurate data on the number of messages received by teams and the time of how fast they process it was obtained or could be verified. The data in this regard is only shared by interviewees, thereby being only approximate. Although such factual details are not essential for the focus of this paper, it might have added some additional understanding on managerial processes of work with citizens' queries and comments in the agencies.

Although two-way communication is the focus of this paper, it is not analysed how the Estonian Government provokes it on its social media and what methods it uses to engage people more on their social networking sites, to solicit information, etc. The research object is condensed to strictly how the public sector institutions deal with citizens' inputs (messages, comments) thereby ensuring that such two-way communication with people is taking place on their social media pages. Hence, the results of this paper constitute only a part of the study – from an organisational perspective – on the whole phenomenon of how two-way communication is done by the Government of Estonia on social media.

5   Results

This section will introduce the results of the document and social media analysis of the social media use by the Estonian government and the data obtained from the interviews. The latter will shed light on institutional aspects of the public sector organisations and the processes of how they react to citizens' voices received on social media. First, the description of social media usage in Estonia will be given. Then, a general introduction to who manages government communications in the country and how it is organised is done. Furthermore, an analysis of the main policy that establishes general rules and principles of government communications for ministries, including their conduct on social media, is outlined. Finally, the description of each Ministry and the Health Board is proposed according to the codes identified at the data analysis stage. The information is grouped by the following topics: Above all, an introduction of the social media exploited by the Government is given following by an overview of the division of responsibilities in all communication teams of the ministries. Then, internal regulations and intentions of the institutions behind opening messaging and commenting functions on social media are discussed. Furthermore, editing processes of how teams prepare answers to citizen's messages and comments are described and an overview of how they work with public comments on social networks is given. Finally, it is described whether the institutions work with the input from social media users and in which way. In addition, it has to be noted, that some of the responders requested not to use their direct quotes in the paper, hence, the use of direct speech is used not for all ministries in the paper.

5.1   Social media in Estonia

In 2019, a percentage of the population of Estonia using the Internet accounted for 89.5% (World Bank, n.d.). Most of these people are using it for social networking. In particular, the biggest part – 70.9% of all people in the country (914 000 persons) are users of Facebook, as of June 2021 (NapoleonCat, 2021). The public of this social network is growing: For example, in September 2020, there were 783 000 users renumerated, constituting 60.5% of the country's population (NapoleonCat, 2020). However, the characteristics of its public remain the same: A majority of Facebook users are women, and the largest group on this network is people of 25-34 years old (NapoleonCat, 2020, 2021).

Notably, that a prevailing majority of the Facebook public (94.4%) access the network via mobile devices (Luty, 2021). Moreover, for each third, a mobile phone is the only means of accessing the network (ibid). In addition, Messenger is used by 623 300 Estonians which constitutes 48.4% of the entire population of the country (NapoleonCat,

2020, 2021). Hence, they can access the network's feed and publish their information there promptly.

The second popular social network in the country, as of June 2021, is Instagram with 463 000 users, following by LinkedIn (254 700 users) (NapoleonCat, 2021). However, based on a share of visits, there are also Pinterest (20.39%), Twitter (7.46%), and YouTube (3.69%) among six of the most popular social networks in Estonia (Luty, 2020).

Moreover, around 80% of individuals in the country use the Internet to interact with public authorities and around 70% – to obtain information from them (European Commission, 2019, p. 4). These indicators are much higher than average ones among the EU states – around 50% and 40% respectively (ibid). Hence, "at the time when over three-fourths of Estonians population uses the Internet, it is essential that the possibilities of the new media are utilized by government communications," the main document which guides the Estonian government in how it should utilize social media – Government Communication Handbook – proclaims (Government Office, 2018, p. 88).

5.2   How government communications are organised and structured

An institution that is responsible for the overall communication in the national government is the Government Communication Unit (GCU) which is a part of the Government Office. It, in particular, manages "the public relations of the Government and Prime Minister and coordinates the development of administrative communication" (State Chancellery, 2020). The Unit also provides information about actions, policies, and objectives of the government to citizens (Government of the Republic, 2021). In addition, it disseminates EU-related information to the public and is a responsible body in questions regarding state and local government insignia (State Chancellery, 2020). The Government Office has also a right to instruct other executive institutions on how to organise communication (Government Office, 2018, p. 10).

Regarding communications units at other ministries, their creation is an area of responsibility of heads of these government institutions. They can also designate a separate communications specialist at their organisations instead of the whole unit (Government Office, 2018, p. 7). A goal of such departments, as defined by the main policy document (Government Communication Handbook), is to support the communication of the government with the public, explain its goals, decisions, actions, and activities, to keep people updated about their rights and obligations, to instruct them on actions needed in emergency cases, and to increase awareness of public administration (ibid, p. 7).

Heads of communications units of the ministries are also members of the inter-ministerial Government Communication Coordination Council chaired by the director of government communication (ibid, p. 10). It is gathered each week to exchange information and organise communication activities. Among others, the council can consult the Government Office on amendments or the development of legal acts regarding government communications (ibid).

The above-mentioned Government Communication Handbook is the main document that guides a policy on communications of the country's government with the public (Government Office, 2018). It has been developed at the Government Office (Edelman, 2019, p. 31). A current version is dated 2018, however, a new, updated handbook is being developed (Responder A GCU, 2021). The manual covers various aspects of how the work of communication teams of each ministry should be done and set general guidelines to communications performed by government bodies. Namely, the handbook defines what are the core values which the Government of Estonia should pursue, how media relations should be conducted. It also consists of recommendations on crisis communication and combating disinformation, internal and external communication, etc.

In particular, the policy calls on ministries to pursue principles of openness, respect, and cooperation with each other. This lays the foundation to why institutions might decide to respond to citizens' voices on social networks and sets the general guidelines on how they might work on this task. Namely, by being open, the policy defines that the government should strive to ensure broad participation of citizens in governance and decision making (Government Office, 2018, p. 4). In addition, institutions are encouraged to initiate discussions in society, take part in them, and be open to criticism (ibid, p. 4). Furthermore, they are advised to respond to questions they receive from the public quickly (ibid, p. 5). Finally, the handbook gives instructions to ministries on how to behave in a situation when a query received does not pertain to this institution's work: An agency is asked to inform about such a request a communications department of a responsible organisation or communicate with all the agencies those areas of competency are touched upon in such a query (ibid, pp. 5-6, p. 10). Although this requirement does not concern social media messages and comments but official queries from citizens', it creates a pattern for ministries on how to react in a similar situation with a user's question from social media.

The work with official queries from citizens in the public sector of Estonia is regulated by the Public Information Act which came into force in 2001 and was revised in 2015 (European Commission, 2019, p. 10). The Act ensures the access to information of the public use for citizens, businesses, and public administration institutions of various levels (ibid). According to the law, among others, any person can make a request for

information, and its holder has to register it and respond within five working days (ibid); within 30 working days – in case of a complex question (Respondent MER, 2021). In addition, it equates e-mail requests to official requests for information (European Commission, 2019, p. 10; Castaños, 2018, p. 21).

In particular, there are three types of information requests discerned. First, a citizen can ask for documents or information from possession of some ministry via a Request for information; it will be answered in five working days (MFA, 2016). Another type is a Request for an Explanation asking, for example, for clarification of legislation and areas of the government work and its activities (ibid). Such request is answered within 30 days as an institution needs to analyse or gather additional information. Finally, a citizen can suggest something to a ministry with a Memo. A response to such documents is sent in a period of 30 days (ibid). The information requests can be submitted as outlined, namely, on the MFA's website: in person or in writing, by mail or e-mail, by fax and phone, or by filling out a form on the official website (ibid).

However, the Act does not concern private messages sent by citizens to government bodies via social networking sites. To date, each central and local government institution has its own approach or policy on whether to register such messages received on social media officially – as a Request for Explanation – or not (Responder A GCU, 2021). In case if citizens' social media voices are registered by a public authority, then general rules apply: An institution is obliged to answer them within a period of maximum of 30 calendar days after a registration date (ibid).

5.3 Regulations on government communications on social media

The Government Communication Handbook highlights the effectiveness of social media in the dissemination of information and encourages ministries' responsible units to foresee it as a channel of communication in their communications plan (Government Office, 2018, p. 12). Moreover, a separate chapter "Government communication on the Internet" is dedicated to online communications, and on social media in particular. It defines general principles and recommendations on how representatives of the Estonian ministries should behave online and how communications teams should perform their work in this area.

Above all, the handbook directly stresses the importance of ensuring two-way communications on social media with citizens and encourages government bodies not to use it "as information boards" (Government Office, 2018, p. 85). The sub-sections of the chapter about communications on social media propose main principles for public sector bodies: Listen, speak, and participate (ibid, pp. 85-86).

The document numerously underlines the interactive nature of social networks, thus, Estonian government organisations are called on "to be prepared for feedback and comments" (Government Office, 2018, p. 86) from citizens on any channel. People should be enabled to communicate conveniently and productively with government bodies on agencies' websites as well (ibid, p. 89). Besides sharing information, inciting discussion on certain topics is also defined as one of the primary purposes why Estonian public administration institutions are encouraged to launch new blogs and adopt social networks (ibid, p. 90).

Moreover, they are advised to give replies to citizens' messages and comments quickly. Government Office treats appropriate to answer Facebook users in a couple of hours, an expectation to a web blog is not so strict – it is acceptable to respond to people there on the same day (ibid, p. 86). The handbook also encourages organisations, while answering users' voices, not only to provide the necessary information but also to ask follow-up questions to citizens (ibid).

At the same time, the document defines that institutions do not need to be present on all networking platforms. However, the most important is that selected channels are managed actively and an organisation can reach a targeted audience (ibid). This was confirmed by a representative of the Government Communication Unit who denoted that each government institution in the country decides by itself how active it should be on social media, what networking sites to use, and what content to post there (Responder B GCU, personal email communication, April 22, 2021). Notably that the handbook directly highlights that institutional capacity is a decisive factor for an organisation in determining what social media to employ and how to manage them.

In this line, institutions are recommended to allocate a separate employee for performing tasks of responding to users' voices on networking sites (ibid, p. 85). It is especially necessary in times of crisis, the document highlights; then, government agencies should also appoint a substitute of a person responsible for social media (ibid, p. 87).

Finally, government officials are allowed to comment freely on institution's social media posts. However, the document warns that rude comments, messages provoking violence, and spam should be deleted (ibid).

5.4   Social media exploited in the Estonian government

The ministries and their accountable agency that are comprising the Estonian Government and analysed in this paper exploit a broad variety of social networking platforms. In all of them, except a few cases where the contrary is indicated, messaging and commenting

functions are enabled. Below, the description of all the social media used in each institution separately is described in more detail.

The GCU runs government accounts on such social media: Facebook, Twitter, and YouTube. The agency employs a few accounts for different languages on these networks – there are pages in the Estonian and Russian languages on Facebook, and in Estonian and English on Twitter. The name of Estonian-language Facebook and Twitter accounts are called *Stenbocki Maja* after the name of the building where the Head of the Government works (Stenbock House, n.d). The Facebook account performs as a joint channel for the government, the Prime Minister, and the State Chancellery (State Chancellery, 2021). As of early June 2021, the Estonian Facebook administered by the GCU has over 23 thousand followers[1], the Russian-language one – over 5.2 thousand (Table 5.1), both with an opened messaging function. On Twitter, there are over 7 thousand followers of the Estonian-language page and 19.2 thousand – of the English. The YouTube account *ValitsuseUudised* [Government News] has 3.15 thousand subscribers.

It is indicated on their Estonian-language Government Facebook account that GCU is its administrator. Moreover, a note regarding the expected conduct from users is mentioned in the description of the account on Facebook. In particular, the Unit warns that the comments with offensive language will be deleted from the page. The organisation also openly invites citizens to send their questions and notifies them about an expected time of their response:

> "The Facebook page of Stenbock House is edited by the Government Communications Office. We value a polite and constructive, mutually respectful discussion culture. That's why we delete rude, misleading, or angry comments. However, counter-arguments are always welcome if they are presented in a polite, reasoned manner. We will answer your questions as soon as possible" [Translation from Estonian] (Stenbock House, n.d.).

In addition, the Prime Minister of Estonia (Kaja Kallas – as of the date when this paper is written[2]) exploits a few personal accounts on social networks such as Facebook with 16.7 thousand followers, Twitter – 33.7, and Instagram – 20.3 thousand followers. Moreover, the Head of the Government has a personal website that has enabled a commenting function widely used to be readers. However, it might be assumed that the

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[1] Data on the numbers of followers of all social media accounts of the Estonian Government has been retrieved on June 13, 2021, except those cases where another date is indicated.
[2] Names of officials are indicated as of the date when data for the analysis are collected – May-June 2021.

website represents the position of the Prime Minister as a representative of a political party she is affiliated with rather than a Head of the Government.

Over the years, personal accounts of a Prime Minister on social networks are administered differently depending on the practices of his or her office. Some Heads of the Government preferred to run their social media by themselves, whereas others dedicated this function to their personnel (Respondent A GCU, 2021). The current Prime Minister is actively involved in the content creation and ideation for her social networks; however, administration of these personal accounts is done by its office (ibid). A communications team of the Ministry does not perform these functions.

The Ministry of Culture has a Facebook account with the same name *Kultuuriministeerium* followed by 8 thousand people, Instagram *estonian_culture_abroad* with more than 2.2 thousand subscribers, and a YouTube channel followed by 81 people. The latter is used primarily as a platform to store videos (Respondent Ministry of Culture, 2021). The Facebook account of the Ministry is welcoming users on its page, however, no other specific description or comments are left (Ministry of Culture, n.d.). The Ministry used to have an account on Twitter, however, a responsible team has closed it because did not find this network important for their communications and due to the lack of appropriate content for it (Respondent Ministry of Culture, 2021). Moreover, Minister of Culture of Estonia Anneli Ott also has her personal account with more than 1.5 followers. The administration of all these social media pages, including personal one, is done by the Communications department of the Ministry (ibid).

The Estonian **Ministry of Defense** exploits a variety of social networks spanning from Facebook, Twitter to Instagram and LinkedIn. There are also two Twitter accounts – in the Estonian and English languages separately. The Facebook page is followed by 7.6 thousand people with a slightly less number for a Twitter English-speaking audience (6.9 thousand followers); the Ministry's Instagram has 2.9 thousand subscribers. The Estonian Twitter has drastically lesser followers – 574. LinkedIn is followed by a smaller number of 227 followers. The Ministry's official website also offers a link to the YouTube channel *Sõdurileht* [Soldier's page] with 5.5 thousand subscribers. The Facebook and LinkedIn accounts provide a description of tasks the Ministry of Defense is entitled to perform and its objectives. There are no prescriptions to users on how they should behave on the pages.

There was also a personal social media account of Minister Kalle Laanet found on Facebook, however, the statistics with the number of people who subscribed or liked the page is hidden. At the same time, there is no data on whether the administration of personal accounts of the Minister on social networking sites is in the scope of work of a

responsible communication team of the Ministry – Strategic Communications department – as no representative of the Ministry agreed to be interviewed on this matter.

A wide variety of social networks is also exploited by the **Ministry of Economic Affairs and Communications** (MEAC). Facebook with the audience accounting for 4.9 thousand followers, Twitter – over 2 thousand followers, LinkedIn – 1.3 thousand followers, and YouTube channel with 185 subscribers. A unit responsible for communication at the Ministry is the Public Relations department (MEAC, 2021).

Moreover, two Ministers who institutionally are part of the Ministry have their accounts on social media too: Minister of Economic Affairs and Infrastructure Taavi Aas employs only Facebook followed by more than 2 thousand people. Minister of Entrepreneurship and Information Technology Andres Sutt has not only Facebook (767 followers) but also a Twitter account (573 followers). However, these personal accounts are managed by Ministers themselves and their political advisors (Respondent MEAC, 2021).

The Ministry of Education and Research (MER) has a Facebook account with the same name – *Haridus- ja Teadusministeerium* with 29.1 thousand people following it. The account is dedicated mainly to the internal public of people living in Estonia, hence Estonian language and occasionally Russian are used there (Respondent MER, 2021). For the international audience, there are an English-speaking Twitter with 5.8 thousand followers and a LinkedIn account followed by 180 followers. Except for the last one, such high numbers of followers make the Ministry one of the most popular government institutions on social media in the country. Facebook and LinkedIn accounts provide a short description of the responsibility of the Ministry, but no additional information regarding the social media policy for users is indicated (Table 5.1). Finally, there is a YouTube channel with the same name as the Ministry which is used primarily for video storage (Respondent MER, 2021). There are already 628 people subscribed to the channel.

Furthermore, there is a page of the Minister of Education and Research on Facebook with 4.1 thousand friends. However, the management of the personal Minister's social media accounts is not a sphere of work of the responsible Communications department (Respondent MER, 2021).

The Ministry of the Environment is represented on the following social networks: Facebook – *Keskkonnaministeerium*, 8.9 thousand followers; Twitter administered in the English language – *EE Ministry of the Environment*, more than 300 subscribers; and YouTube – *Eesti Keskkonnaministeerium*, over 200 subscribers. The section "About" on

Facebook reminds a reader of a purpose of the Ministry's work and the importance of the environment. No mentions on social media policy or responsible team are left.

In addition, the Minister of the Environment Tõnis Mölder has his own Facebook page with more than 300 subscribers; a list of friends is hidden, thus, the numbers of the whole audience of the page cannot be extracted. However, the administration of personal accounts is not a task of a responsible unit (Responder Ministry of the Environment, 2021) that is a Public Relations department.

The Ministry of Finance has an account on Facebook – *Rahandusministeerium,* 2.8 thousand followers, Twitter – *FinMinEstonia*, 1.9 thousand followers, YouTube – *Rahandusministeerium*, more than 170 subscribers, and LinkedIn – *Estonian Ministry of Finance / Rahandusministeerium*, 483 followers (as of July 2021). In addition, the Ministry has also its blog *Rahandusministeerium* [Ministry of Finance] where the Ministry's specialists of all levels (e. g., advisors, analysts, chief specialists, heads of departments) explain the issues regarding a state budget (Ministry of Finance, n.d.). It is possible to comment on all the posts. The Ministry encourages users to use this function and leave their thoughts, however, it warns that messages containing obscene language will be deleted (Ministry of Finance, n.d.). Along with other social networking pages, the blog is administered by the Public Relations department of the Ministry of Finance (Ministry of Finance, n.d.) which is a unit in charge of communications of the Ministry.

Finally, two ministers comprising the Ministry of Finance use their personal accounts on social media. In particular, the Minister of Finance Keit Pentus-Rosimannus has her Facebook page with over 5 thousand followers, Twitter – with more than 3.2 subscribers, and Instagram – with over 2.1 thousand followers. The Minister of Public Administration Jaak Aab employs only a Facebook page which is followed by more than 3.8 thousand people. At the same time, the Public Relations department does not administer the personal social media accounts of the Ministers; this is done either by themselves or by representatives of their political parties (Respondent Ministry of Finance, 2021).

The **Ministry of Foreign Affairs** of Estonia (MFA) uses one of the biggest varieties of possible social networks in the Government: Facebook, Twitter, LinkedIn, Instagram, YouTube. Its Facebook page *Estonian Ministry of Foreign Affairs / Välisministeerium* accounts for up to 27 thousand followers. The audience of its English-speaking Twitter *Estonian MFA* is almost twice more – more than 45 thousand followers. The numbers of subscribers of its LinkedIn account *Ministry of Foreign Affairs of Estonia* and Instagram *mfaestonia* are much smaller and comparatively similar – over 1.6 thousand and over 1 thousand respectively. The YouTube channel of the Ministry *estonianmfa* has received more than 880 subscribers.

In addition, there is separate Facebook accounts exploited by the Ministry – for consular services *Välisministeeriumi veebikonsul* [Foreign Consul of the Ministry of Foreign Affairs] (Respondent MFA, 2021). The page acts as an "online consul" and shares the Ministry's advice on travel and consular services (Foreign Consul of the MFA, n.d.). By the description of the page, users are invited to send their questions about travel documents, visas, etc. (ibid), and there is active dialoguing usually takes place (Respondent MFA, 2021). However, the account is run by the Consular department of the Ministry.

The MFA also has another account on Facebook which is dedicated to the information related to judicial topics, new legislation, and court decisions of the European Court of Human Rights and Court of Justice of the European Union (Respondent MFA, 2021). However, this page is run by the Legal department of the Ministry in cooperation with an Estonian official representative to the European Court of Human Rights and Court of Justice of the European Union (ibid). In addition, most of the Embassies of Estonia and representations exploit their own accounts on Facebook and Twitter, along with national diplomats using their personal accounts, to share the information about their activity and news with the public (ibid). However, although such pages belong to the overall structure of MFA of Estonia and are, to some extent, parts of its representations on social media, their administration was not analysed in a framework of this paper due to their substantial number and inability to reach managers of all these numerous accounts.

Finally, Minister Eva-Maria Liimets has a page on Facebook – with more than 700 followers (the number of friends is hidden) and Twitter – over 2.5 thousand subscribers. The former is administered personally whereas Twitter is partially managed by the communications team of the Ministry – Communication department (Respondent MFA, 2021). In addition, this unit is responsible for the above-mentioned social media accounts of the Ministry.

The Ministry of the Interior has several social media accounts: Facebook, Twitter, YouTube, and LinkedIn. The public of its Facebook page with the same name *Siseministeerium* is the biggest accounting for 7.2 thousand followers. The number of subscribers of other networking pages of the Ministry is much smaller. A Twitter page *Siseministeerium/MoI* has more than 990 followers, YouTube *Siseministeerium* – up to 200 subscribers, and LinkedIn *Estonian Ministry of the Interior* – up to 300 followers. Similar numbers of subscribers are for social media pages of Minister Kristian Jaani: His Facebook has 941 followers, whereas the Minister's Twitter gathered an audience of 2 261 subscribers.

Moreover, there are two blogs administered by the responsible communication team of the Ministry – *Rahvastikupoliitika blogi* [Population Policy Blog] and *Siseturvalisuse blogi* [Homeland Security Blog]. Both platforms allow commenting. Also, both of them, as well as the Facebook, LinkedIn pages, propose an extensive overview of the activity and mission of the Ministry in their descriptions. At the same time, no warnings to users on expected behaviour, comments allowed, or social media policy provided.

According to the information on the outlined pages of the Ministry of the Interior, all social media sites identified above are managed by the Communications department of the Ministry. At the same time, it is not defined whether their responsibilities also concern the administration of the personal pages of the head of the institution as there was no interview done with its representative.

The identified social networks which are employed by **the Ministry of Justice** are not numerous. First, there is a page on Facebook *Justiitsministeerium* which gathered more than 5.6 thousand followers (as of the beginning of July 2021). Also, the institution has its accounts on Twitter followed by 219 people and YouTube – with 333 subscribers. A communications function at the Ministry of Justice is performed by the Public Relations Division.

Moreover, the Minister of Justice Maris Lauri exploits Facebook with more than 1 thousand followers, Twitter – with 2.2 thousand subscribers, and LinkedIn – with more than 500 connections. In addition, the Minister has her personal blog, however, there is no information on who is an administrator of the website. Also, a commenting function is closed to all posts. Similarly, there is no data on who manages her social networking sites.

The Ministry of Rural Affairs (MRA) is represented on several social networking platforms. First, it has an account *Maaeluministeerium* on Facebook, 14.5 thousand people are following it. The Facebook page of the Ministry has a clear statement in its description that it is edited by the Ministry's Public Relations Department (MRA, n.d.-a). Moreover, there is an account of the same name on YouTube with more than 241 subscribers, the channel is run in two languages – Estonian and Russian. In addition, there is a LinkedIn page called *Republic of Estonia Ministry of Rural Affairs* with 111 followers can be found. However, it is empty and not operated by the responsible department (Respondent MRA, 2021).

Besides that, the Ministry has a *Maablogi* [Country blog] where the Ministry's specialists share their analytics, thoughts, and other information on such topics as food production, safety, and economy (Country blog, n.d.). A commenting function is enabled on the

platform, and administrators are welcoming people to leave their voices (questions and wishes) under posts (ibid). Moreover, it is indicated that the Public Relations department of the Ministry manages the blog (ibid).

Speaking about the personal social networks of the Minister, there were two Facebook accounts found, however, they seem to serve different purposes – one is about public affairs and activity (Maaeluminister Urmas Kruuse), another is for personal usage (Urmas Kruuse). The public of the latter is bigger – 2.3 thousand friends in comparison to up to 280 followers of the official page. Although there is no data regarding the administration of the personal page, the official account is not administered by the Public Relations department; it is done by the Minister's advisers (Respondent MRA, 2021).

The Ministry of Social Affairs (MSA) has pages on such social networks such as Facebook, Twitter, Instagram, and YouTube – all of the same name *Sotsiaalministeerium*. The most followed one is the Facebook account with an audience of 14.8 thousand people, then there is Instagram *sotsiaalministeerium.ee* with 1.6 thousand followers. Finally, the public of Twitter and YouTube is almost the same – 780 and 743 subscribers of each account (as of July 2021) respectively.

A section with a description on the Facebook page invites users to visit the Ministry's website. Moreover, it provides citizens with information on who is managing the page and sets general rules for the comments. The MSA defines that the usage of offensive and rude language is a reason why a comment can be deleted:

> "The Facebook page of the Ministry of Social Affairs is edited by the communication department of the ministry. We value a polite and constructive, mutually respectful discussion culture. That's why we delete rude, misleading, or angry comments. However, counter-arguments are always welcome if they are presented in a polite, reasoned manner. We will answer your questions as soon as possible" [Translation from Estonian] (MSA, n.d.-a).

Furthermore, the institution has the blog *Sotsiaalministeeriumi ajaveeb* [the Ministry of Social Affairs blog] that introduces topics of the state's health, social field, work, and equality (MSA blog, n.d.). Authors of blog posts are specialists of the MSA (ibid). Commenting has been enabled on the platform, and administrators – the Communication department of the Ministry – are encouraging people to leave their questions under posts (ibid). At the same time, similar to Facebook, they appeal for polite communication to users:

"All thoughts, suggestions and questions can be left in the comments. We look forward to discussing the issues further, but we consider mutual respect to be important. All comments containing obscenity will be removed. You are welcome to read, comment and share our posts" [Translation from Estonian] (MSA blog, n.d.).

In addition to it, two Ministers of the MSA have their own profiles on social media. Namely, Minister of Social Protection Signe Riisalo can be found on Facebook and Instagram. 1 773 people follow her Facebook page, and there are 331 subscribers (as of July 2021) on the second network. Minister of Health and Labour Tanel Kiik has also a Facebook account; his audience is comprised of 2.5 thousand friends and 1.5 thousand followers. He has also Twitter, 1.6 thousand followers have subscribed for it. However, there is no data on whether the Ministry's communication team is assisting with the administration of these personal pages of the institution leaders as an interview with its representative has not been conducted.

The Health Board is an accountable body in the structure of the MSA (2021). It is a competent authority for: "recognition of medical qualification; regulation of medical devices; surveillance, prevention, and control of communicable diseases, risk analysis in epidemiology; cosmetic products; chemical safety; and drinking water, bathing waters" (Health Board, n.d.-a).

Its Facebook named after the organisation *Terviseamet* with 38.7 thousand subscribers is one of the most followed among the government institutions in Estonia. Besides that, the Health Board operates an Instagram account *terviseamet* which has 2.3 thousand followers, and a YouTube channel *Terviseamet* with more than 830 subscribers. All social networking pages are run in two languages – Estonian and Russian.

Besides the description of the institution and its scope of responsibility, there is an introduction to the institution's social media policy on Facebook that users are expected to obey left in the "About" section. The rules correspond to the description of the Facebook page of the MSA that the Health Board is accountable to:

"We value a polite and constructive, mutually respectful discussion culture. That's why we delete rude, misleading, or angry comments. Counter-arguments are always welcome if they are presented politely and argumentatively. The Facebook page of the Health Board is primarily a place for mediating operative information" [Translation from Estonian] (Health Board, n.d.-b).

There is also indicated who is the page administrator – the Communication Service of the Health Board, and an official email for questions and feedback from citizens is left.

№	Institution	Facebook, following/ liked the page	Twitter, followers	YouTube, subscribers	Instagram, followers	LinkedIn, connections
1	**Government Office, Government Communication Unit**	**Estonian:** **23 141[3]** / 21 399 **Russian**: 5 214 / 4 282	**Estonian:** 7 005 **English**: **19.2 thousand**	**3.14 thousand**		
	Prime Minister Kaja Kallas	**16 734** / 15 179	**33.7** thousand		**20.3 thousand**	
2	**Ministry of Culture**	8 075 / 7 613		81	2 254	
	Minister of Culture Anneli Ott	1 595 / 1570				
3	**Ministry of Defence**	7 669 / 7 369	**English:** 6 929 **Estonian:** 574	**5.5 thousand**	2 930	227
	Minister of Defence Kalle Laanet	Data on a number of friends and followers is hidden				
4	**Ministry of Economic Affairs and Communications**	4 987 / 4 504	2 018	185		1 361
	Minister of Economic Affairs and Infrastructure Taavi Aas	2 015 / 1 945				
	Minister of Entrepreneurship and Information Technology Andres Sutt	767 / 734	573			
5	**Ministry of Education and Research**	**29 151** / 27 812	5 877	628		180
	Minister of Education and Research Liina Kersna	4 188 friends				
6	**Ministry of the Environment**	8 941 / 8 371	331	228		
	Minister of the Environment Tõnis Mölder	333				
7	**Ministry of Finance**	2 863 / 2 601	1 904	177	483	
	Minister of Finance Keit Pentus-Rosimannus	5 603 / 5 493	3 281		2 107	
	Minister of Public Administration Jaak Aab	3 848 / 3 769				
8	**Ministry of Foreign Affairs**	**26 994** / 25 432 **Välisministeeriumi veebikonsul** 9 109 / 8 836	**45 thousand**	886	1 074	1 608
	Minister of Foreign Affairs Eva-Maria Liimets	702 / 615	2 533			
9	**Ministry of the Interior**	7 210 / 6 845	993	197		289
	Minister of the Interior Kristian Jaani	941 / 868	2 261			
10	**Ministry of Justice**	5 674 / 5 406	219	333		
	Minister of Justice Maris Lauri	1 074 followers	2 239			500+
11	**Ministry of Rural Affairs**	14 534 / 14 197		241		111[4]
	Minister of Rural Affairs Urmas Kruuse	**Public** account - 279 / 273 **Personal** page - 2 393 friends				

[3] The highest numbers of followers of the government social media accounts are highlighted in bold.

[4] The account is not managed by the Public Relations department of the Ministry.

12	**Ministry of Social Affairs**	14 867 / 13 980	780	743	1 660	
	Minister of Social Protection Signe Riisalo	1 773 followers			331	
	Minister of Health and Labour Tanel Kiik	2 534 friends, 1 520 followers	1 698			
13	**Health Board**	**38 726** / 30 904		832	2 323	

Table 5.1   Social media accounts of the Estonian Government institutions and their followers[5]

5.5   The division of responsibilities in the units working with social media

According to the official website of the Government of the Republic, the GCU accounts for 10 personnel who includes a Director of government communication – press officer to the government, a Head of strategic communication, five press officers, two consultants, and an adviser on insignia (Government of the Republic, 2021). Two employees of the Unit are responsible for answering citizens' messages and comments from social networking sites and have full access to the government social media accounts (Respondent A GCU, 2021). However, this function is only additional to them as they perform other tasks too (ibid).

Organising training for employees, including regarding the work with social media, is one of the primary functions of the Unit, however, it was not done recently due to the COVID-19 pandemic, the Responder A (GCU, 2021) indicated. As long as restrictions are being eased and a situation is returning to normal, new workshops and training courses are about to be done (ibid).

The Communications department of the Ministry of Culture consisting of four personnel: a Head of the department, two advisers, and a chief specialist (Ministry of Culture, 2021). A duty to answer citizens' questions from social media is not allocated to only one employee – this function is performed by three personnel out of four from the unit's staff (Respondent Ministry of Culture, 2021). At the same time, all the personnel of the Communications department have access, administration rights to the Ministry's social media accounts (ibid).

In the Ministry of Defence, a Strategic Communications department operates which comprises six employees according to the official website (Ministry of Defence, n.d). Specific roles of the personnel are indicated. Namely, besides a director and a deputy director of the department, there is a strategic communications planner and three advisers – on international media, social media, and international communications.

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[5] A list of links to Estonian government social media accounts is provided in Appendix 2.

A unit responsible for communication at the MEAC – the Public Relations department – consists of four people: a Head and three advisors (MEAC, 2021). There is no one person in the department who is solely in charge of operating with citizens' messages and comments from social media. Instead, all three advisers perform this work. Each of them has a certain topic they are specialising in and are responsible for (e.g., transport, housing, energetics, etc.). Hence, answering citizens' voices from social networks is done by them besides other functions of communication with media, partners, or the public and is divided according to their area of competency (Respondent MEAC, 2021). All these three persons have the right to the administration of social media accounts. The team also has an opportunity to attend training or workshops that supports them in their work and to upskill personnel (ibid).

Communications of MER is managed by a Communications department. It consists of 11 personnel: a Head and deputy head, three advisers, four consultants, an internal communications coordinator, and a web editor (Ministry of Education and Research, n.d.). All employees are specialists in certain topics in accordance with which all the communications functions are shared among them (Respondent MER, 2021).

A function of working with citizens' voices on social media, however, is allocated to one person in the team (ibid). At the same time, other colleagues have social media administration rights too. It was done due to security reasons: "This is like a security net for us. Whenever something happens with one of us or our accounts will be compromised, then there will be always another administration, a right person who can take over the page (sic)" (Respondent MER, 2021). Hence, certain rules have been agreed upon in the team so as not to interfere with the work of the employee responsible for social media. Namely, other colleagues should not click on the notifications about new private messages or comments from social networks so that the personnel in charge could track the flow of all the voices received, or they should not reply to public comments (ibid).

The team has the training to upskill their personnel such as basic introductory social media courses, seminars (Respondent MER, 2021). However, the Responder also stressed the need for complex specific pieces of training on digital communication on social media for the public sector (ibid). At this point, knowledge on how to work with social media are shared among employees: "We speak to each other, managers, we have good cooperation with ministries, to get ideas and develop strategies. We are basically on our own, but we are growing together in our capacities (sic)" (ibid).

The Ministry of the Environment has a Public Relations department consisting of five employees: its head, three senior officers, and an adviser (Ministry of the Environment, n.d.). Those specialists in the department who are in charge of media relations are

competent in certain separate topics (e.g., climate, water, nature protection, etc.), hence they cover the same topics on social media while receiving certain messages and comments (Respondent the Ministry of the Environment, 2021). All of them have also the right to administrate the social media accounts of the institution. To upskill personnel working with social networks, the department team has specialised training, however, it happens not every year (ibid).

At the Ministry of Finance, the Public Relations department operates which includes six personnel: the head of the department and two advisers – on anti-money laundering and internal communication (Ministry of Finance, 2021). Moreover, three press officers are specialising in different topics: regional policy; state assets, public procurement, financial literacy, macroeconomic policy, budgeting, foreign funds, etc.; and tax and customs policy (ibid). A responsibility to answer citizens' messages and comments on social media is dispersed among all the team members – according to the topics they are specialising in (Respondent Ministry of Finance, 2021). They all have rights to social media accounts administrations, however, social media constitutes only one part of their scope of work including also work with media inquiries, articles, etc. (ibid). Regarding upskilling personnel in their social media use, the department tries to train personnel to improve their skills (ibid).

The Communication department of the MFA is comprised of five personnel: a Director General, three media advisers, and an adviser (Ministry of Foreign Affairs, n.d.). Moreover, there is a sub-unit Public Diplomacy and Cultural Cooperation inside the department consisting of five more employees: four advisors, including a culture one and on public diplomacy, and a translator and editor (ibid). Media advisors also specialise in a certain topic, hence, according to it, they answer citizens' questions from social networks; There is no one designated person to this function (Respondent MFA, 2021).

Moreover, all members of the communication team have the rights of administrators, thus, they all can post on social media accounts. At the same time, posting is usually assigned to a specific person according to weekly, monthly, and annual plans (except for the current time when a prompt reaction is needed) (Respondent MFA, 2021). The department provides training to upskill personnel who are responsible for social media periodically (ibid). However, a focus is more on sharing experiences with team members and other communication units and thereby learning from that (ibid).

A team of the Communications department of the Ministry of the Interior consists of six employees who are a Head of the department, four communication advisers, and an internal communication adviser (Ministry of the Interior, n.d.).

A communications function at the Ministry of Justice is performed by the Public Relations Division. Notably that the unit is not a separate independent department in the structure of the Ministry as in other cases but is a part of the General department (Ministry of Justice, 2021). The division is comprised of four employees: a director and three press officers (ibid).

The Public Relations Department of the MRA consists of six personnel: the Head of the department, four advisers, and a chief specialist (MRA, n.d.-b). Its website proposes a description of the employees' roles and areas of expertise. In particular, all of them "distribute information and communicates with the press" (MRA, 2021). At the same time, each of the advisors is in charge of separate topics: agricultural and rural life policies; fisheries; and plant health and food safety (ibid). All of the advisors, besides other tasks, answer citizens' messages and comments on social media – according to a topic of their specialisation (Respondent MRA, 2021). They all have administrator rights to the Facebook page or the Ministry's blog (ibid). An exception, however, is a YouTube account: Only one person from the department manages the Ministry's channel there (ibid).

The team that is responsible for communication at the MSA is a Communication department consisting of seven employees. Besides a Head, there are also two advisers on media relations (one of them is specialising in health policy), two advisers, and two communications specialists working in the department (MSA, n.d.-b).

Regarding an organisational composition of the Communication Service of the Health Board, it consists of six employees: a Head, four specialists – on social media, internal communications, media relations, communications, and an adviser on media relations (Health Board, n.d.-c). Hence, a function of answering citizens' messages and comments from social networks is mostly allocated to one person in the team, however, the whole team and other personnel from outside of the organisation can be involved in the work on this function when there is a high influx of messages, such as at the time of the beginning of the COVID-19 pandemic (Respondent Health Board, 2021). For this reason, the team obtained skills of social media work from hands-on experience during the crisis, rather than on specialised training (ibid).

5.6   Regulations and intentions to open messaging and commenting functions

The GCU in their work with social media is being guided by a general guideline – Government Communication Handbook which was developed at the Government Office (Government Office, 2018). Although the manual encourages ministries to provide two-way communication with users on social media, there are no obligations by law to speak

with people directly on social media. The Unit's representative explains the reasons why the organisation enabled messaging and commenting functions on their social networking sites with an intention to provide citizens a fast and convenient channel of communication:

> "People are spending more time than ever on social media, so it is more than logical for the government to be where the people are. Messaging government bodies on social media is probably a very convenient, fast, and easy way for citizens to find answers to their questions or make themselves heard (sic)" (Responder A GCU, 2021).

The Communications department of the Ministry of Culture has developed an internal policy "Communications values of the Ministry of Culture" (sic) (Respondent Ministry of Culture, 2021). The document was developed by the Communications department together with the whole institution in 2014; before that, no internal policy existed (ibid). The unit also updates the policy regularly, it was done already several times.

According to the document, social media has been recognised as an essential part of information management of the Ministry and the Communications department (ibid). The policy sets the main principles which representatives of the institution should follow in using social media. There are also principles that guide representatives of the responsible communication unit in their work with citizens' voices on social networks and with the information. In particular, such values encourage employees to be prompt and to be caring to people, as exemplified by a Responder from the Ministry (2021): "We mustn't judge the one who is asking the question, even though the question can be repeated, given to us with a basis of or a lack of knowledge – whatever, we have to answer all the questions (sic)" (ibid). Hence, the Ministry tries to react to all the citizens' questions which they receive.

MEAC does not have any regulations in place regarding work with citizens' messages or comments on social networks, thus, they are not obliged to open these functions on their accounts. However, the Ministry preferred to do that to be closer to citizens (Respondent MEAC, 2021):

> "It is just another communications platform and if we answer emails when people ask for information, why shouldn't we answer their quick messages? Some people prefer social media messages to send emails and this way we can get closer to citizens in a less official manner (sic)" (ibid).

MER developed a social media strategy that defined the active engagement of the Ministry on social media (Respondent MER, 2021). However, it does not pertain to any policy specifically regarding Facebook and the work with citizens' voices on social networks (ibid). The employee working upon answering citizens on social media is

guided by principles of the document management of the Ministry which, in particular, encourages employees to be "precise, clear, … use sentences correctly" (ibid).

The Ministry is geared towards opening commenting and messaging functions because it helps an organization to be transparent and open. Moreover, it gives citizens another channel to reach out to a government institution and obtain necessary information quickly (ibid). The team noticed that this way is more preferred by users who do not want to commit to using official channels of communication:

> "It seems that people are more eager to reach out to us on social media because they are not really confident to write us an email… At the end of the day, it is the same thing. It is a way to be more connected to people and to show the Ministry is present (sic)" (Respondent MER, 2021).

Finally, the MER team stressed the importance of having a channel to communicate with citizens and give them the requested information, especially at times of crisis, as it was at the start of the COVID-19 pandemic (ibid).

The Ministry of the Environment does not have specific social media regulations in a paper, at the same time, answering private citizens' messages on social media is considered to be obligatory (Respondent the Ministry of the Environment, 2021). An interviewed representative of the team calls enabling a messaging function on social networks, in particular Facebook, a logical step because social media is "a natural environment to contact with different people, companies and institutions" (ibid).

The Ministry of Finance developed a kind of "inner common agreement" (Respondent Ministry of Finance, 2021) that resulted from a discussion on certain aspects in the team. This policy now guides the personnel in their work; however, the department also recognises the need to renew the policy regarding social media to enhance consistency of its communication (ibid). Hence, there is no obligation by law for the unit to respond to citizens' messages and comments on social media. However, it strives to answer them to ensure the openness of the Ministry, its transparency, and trustworthiness as well as to make people more informed about the issues that are from the Ministry's area. That was also the reason why the team enabled a messaging function on social media accounts:

> "As a Ministry, we want to be open, honest, full of expert knowledge, compassionate, and share our information accordingly. We hope that it is beneficial for people, but we also hope to gain people's trust regarding our topics and that helps to shape the Ministry's public image as well" (Respondent Ministry of Finance, 2021).

The MFA's responsible department developed guidelines regarding work with social media, however, it is not pertaining specifically to how citizens' messages and comments should be responded (Respondent MFA, 2021). The unit is not obliged to answer citizens'

messages or comments on social media as well as to set up accounts on networking platforms (ibid). The reason why the MFA decided to enable a messaging function is to ensure transparency and responsiveness of the organisation's communications (ibid).

At the MRA, the communications personnel do not have specific regulations regarding the work with social media, at the same time, they follow the principles outlined in the Government Communication Handbook (Respondent MRA, 2021). Hence, the institution is not obliged to reply to citizens' messages or comments on social networks, however, the organisation strives to answer "concrete questions" they receive (ibid).

The Health Board does not have any regulations in a paper which specifically define how the work with citizens' voices on social media should be done (Respondent Health Board, 2021). However, a kind of an oral policy is in place as the team agreed upon some guiding rules. One of them is not to argue with users or not to answer offensive messages (ibid).

With no law obligations to reply to messages from social networks, the organisation enabled a messaging function and is still geared towards answering citizens with such an intention: "The main goal is to get the correct information to people, and this is the fastest way to interact," as a representative of the institution explains (ibid). However, the agency does not consider social media as an official channel of communications and redirect requests from users which should be sent via official ones (for example, from journalists) to those means of communication (ibid).

5.7   Editing process in the work with citizens' voices from social media

At the GCU, two employees responsible for processing messages and comments from social media "have full authority" of working upon and sending replies to citizens (Respondent A GCU, 2021). Usually, if all the required information is available at the Unit, employees answer a question by themselves. In other cases, if a question is very specific or information needed is not available directly, the GCU will direct a citizen to a correct respondent (ibid). At the same time, the GCU often cooperates with other ministries in order to answer messages and comments from social media, for example, to obtain some information or to take citizens' suggestions into work (ibid).

Usually, the team replies to the users' messages and comments quickly – from within a few minutes to up to several hours. At the same time, it depends on the essence of a question, it is recognized in the team (ibid). For example:

"If the questioner is debating scientific facts or asking specific questions about the process of coronavirus testing, efficacy studies for wearing masks to prevent COVID-19, etc., it can take up to several hours. Sometimes we also have very hard to answer,

tragic personal stories, for which we need to coordinate with several other ministries and answering them can take several weeks (sic)" (Respondent A GCU, 2021).

The GCU has observed a rapid increase of messages from citizens vis social networks since the beginning of the COVID-19 pandemic in 2020. At the same time, an influx of citizens' messages on social media is a reaction to certain government decisions; the bigger number of people it impacts, the higher number of voices citizens leave on social networking sites to the government. Such examples were in cases of "declaring a state of emergency, imposing or lifting travel or other everyday restrictions, compensation measures, etc.," as shared by Responder A of GCU (2021).

Approximate numbers of messages sent by users to the GCU via social networks account for up to 5 messages per day skyrocketing to about 40-50 messages per day at the time of the most critical moments (ibid). The GCU receives messages from citizens primarily on Facebook; Instagram is in second place. The numbers of messages sent on other social networking platforms are not significant. The Unit does not collect any kind of statistics regarding the numbers of voices they receive from citizens on social media. The GCU strives to answer all the questions they receive as messages on social media, except for those that are spam or consist of hate (ibid).

Similar to GCU, personnel of the Communications department of the Ministry of Culture who is in charge of answering citizens' messages are not obliged to get clearance for their answers. At the same time, prepared drafts can be discussed collectively inside the team before sending them in order to find "the best possible answer to the question" (Respondent Ministry of Culture, 2021).

Moreover, it is decided on who exactly is answering which question inside the team based on each member's specialisation. As all personnel has competencies in a certain area, thus, when a social media message from a citizen concerns a certain topic, an expert in this area will be answering this message:

> "We look at a question and decide whose topic it is. So, for instance, if it is about heritage, then I have an advisor who is dealing with all the questions concerning the heritage matter, so she is going to be the one to answer that question. If it is about sport, we have another advisor, who is responsible for sport, politics, so she takes that question. So, we, sort of, divided our topics among people and everyone knows their own, so to say, a portfolio (sic)" (Respondent Ministry of Culture, 2021).

The Communications department also cooperates with other units of the Ministry as well as with the GCU in cases if additional information is needed to answer a citizen's message or when a question is complex, such as regarding policies, and requires consolidated

opinions of different actors (ibid). The need to consult with other government counterparts also arises if a matter of a citizen's social media message does not concern the responsibility of the Ministry of Culture. In such a situation, the department tries to find the information by themselves by contacting other organisations and reply to a user. However, if such a situation is repetitive, the team can advise a user to contact another organisation to avoid confusion.

The department also reported the increase in the number of messages from citizens received via social media at the beginning of the COVID-19 pandemic in the spring of 2020. Then, it accounted for 10 social media questions per day. Then, the unit had to change personnel's tasks in order to process such an amount of work from social media in addition to telephone calls and media queries. To date, when a situation is normalised, the Ministry receives a couple of questions per week. Citizens leave their voices primarily on Facebook, to a much lesser extent – on Instagram. The department does not track any kind of statistics of processed messages from social media.

All three employees at the MEAC who are administering social media accounts decide by themselves about any issues regarding publications (Respondent MEAC, 2021). At the same time, they can seek a consultation with other departments that are competent in a question before answering citizens on social media (ibid). For example, such consultations are done when the responsible department does not have information to a received question, but it still concerns the area of the Ministry. In other cases, the team encourages a citizen to address another institution that is in charge of his or her question.

The most popular social network from where the MEAC receives a majority of messages is Facebook. However, its number is not high: In ordinary circumstances, a workload is three messages per month. However, this is much higher at the times of the crisis, such as at the beginning of the COVID-19 pandemic (ibid).

The MEAC tries to answer all the messages when people ask for information as soon as possible (Respondent MEAC, 2021). An exception is offensive, hateful messages "when somebody feels like he/she should address their bad day at us" (ibid); Then, the Ministry does not respond to them.

The MER receives personal messages from citizens primarily on Facebook and answers most of them. It also strives to react to all private messages in any way – either by giving it "a thumb" or saying "Thank you!" (Respondent MER, 2021). Moreover, an automatic reply has been set up in a private Facebook chat of the Ministry – when a citizen sends a message, he or she automatically receives an answer "Thank you for writing to us. We will get back to you as soon as possible" (ibid). The Ministry does not respond only to

messages that contain insults or threats of personal attacks, the latter can be (and has been done once) reported to the police.

The team replies to messages promptly: If an answer is known, it is a matter of hours (Respondent MER, 2021). Then, an answer to a citizen's message does not need to be approved too. In cases of complex issues that require collecting additional information, a reply will be done within a working day (ibid). This is ensured by a fact that there is one person in charge who receives immediate notifications on a mobile phone about a new message on social networks and could react as soon as possible. At the same time, the team tries to avoid live communications in private chats – not to provoke additional questions (ibid).

Collecting additional information can be done by consulting with other departments of the Ministry in order to obtain (and consequently provide to people) the most accurate and correct information (ibid). At the same time, a Respondent from the team recognizes that questions sent in messages and comments on social media are prevailingly repetitive, thus, a need to approach other units for obtaining new information is not frequent: "After four years working at the Ministry, there are not many questions that I need to consult with other departments… If I've been there going with these questions 10-20-30 times, and I already know these answers (sic)" (ibid).

In June 2021, the MER received 10 private messages from citizens on social networks (Respondent MER, 2021). However, this is considered to be a low number for the MER as in influx of citizens' voices sent to the Ministry on social media depends on the academic year – citizens on social media address it more often at the time of the start of a school year or during examination (ibid). During the pick times, the responsible employee could use an Excel worksheet to keep track of the work progress with all the messages received (ibid).

A majority of private messages from citizens, as well as comments, were sent to the Ministry of the Environment on Facebook. The institution receives approximately a message per day on this social network (Respondent Ministry of the Environment, 2021). The responsible team answers all the private messages. It is done during the day or on the next day ("if the message was sent in the evening") (ibid). In the preparation of replies, the team can cooperate with other departments if necessary. However, the Ministry does not obtain information in order to answer questions that are not in the area of their responsibility – in this case, the team advises a citizen what institution he or she could contact instead (ibid).

The Ministry of Finance receives a majority of messages and comments from citizens on Facebook. The number of private messages accounts approximately for 2-8 a month, a number of public comments may vary around 125 or much less (Respondent Ministry of Finance, 2021). The influx of citizens' voices sent to the institution depends on the topic discussed at a certain period (ibid). The Public Relations department team tries to answer users as soon as possible, it is usually done during one working day. The focus is on the messages or comments which require some information, however, if there is no request for an answer from the Ministry but a citizen is writing a message only to express his or her opinion, then the employees do not reply to such voices (ibid).

While preparing an answer to citizens' questions from social media, the personnel of the department usually do not need to approve their drafts with anyone. As they are dealing with messages or comments from their field of specialisation, they are deeply aware of their topic, hence, no clearance or guidance is needed. At the same time, if a need to consult with someone occurs, they can approach a chief of the department or other experts in the Ministry (Respondent Ministry of Finance, 2021).

Hence, the Public Relations department of the Ministry of Finance actively cooperates with other units of the institution or even other Ministries. In particular, it is done if a citizen's request from social media does not concern the area of the institution's work. In such situations, the department's team tries to obtain information for a user by itself rather than forward him or her to another agency:

> "We try to be as useful as we can and avoid sending a person from one institution to the other. We definitely try to provide information that might help the person and give him/her the best possible experience from interacting with the state (institutions) in general" (Respondent Ministry of Finance, 2021).

The MFA receives less than a dozen of messages from social media per month. The biggest share is sent on Facebook. At the same time, the representative of the team who was interviewed denotes that it does not seem that users expect much interaction from the MFA on social networks (Respondent MFA, 2021). It might be the case because citizens use other official channels instead such as emails or calls to obtain the necessary information or find it on an official website of the Ministry (ibid). Moreover, in the case of this Ministry specifically, there is an automatic reply set up in the Facebook chat which redirects citizens to another MFA's social media account about consular services if a question sent concerns such services (ibid).

Employees answering citizen's messages from social media do not need to approve their drafts with anyone before sending them and use their judgment while working on them.

However, they might consult with colleagues or other departments if there is some need for that. The Department tries to respond to messages they receive from social media as soon as possible, however, it does not happen systematically (Respondent MFA, 2021).

The communication team of MRA is aimed at answering all the messages they receive on social networks; This primarily concerns Facebook. Usually, 1-2 private messages from citizens are received per month. Employees who process a received message do not need to clear their replies with anyone. However, they might address other departments if some unknown information is needed. Then, a Head of that unit will be approving a draft of the answer (Respondent MRA, 2021). In this case, answering a citizen might take up to one working day; In usual circumstances, however, it is done very promptly – in 5-10 minutes. If a citizen's question is not pertaining to the MRA, the team would redirect the user to a responsible institution (ibid).

The situation in the Health Board regarding the numbers of citizen's voices from social media is the opposite – the organisation receives about 10 questions or comments per day in the "calm" periods. At the start of the COVID-19 pandemic, this number increased in a few times – up to 50-60 per day was sent to the agency via social media. A majority of messages are from Facebook (Respondent Health Board, 2021).

While preparing an answer, a person who is doing that is also in charge of editing. No approval of a reply draft is needed if the information required is known and/or is obtained from official sources. Otherwise, this person consults with other departments or Ministries, in particular MSA, for which the Health Board is accountable. There are no already prepared drafts (templates) of answers to use, however, the organisation has a list of frequently asked questions with answers to them, hence, often the responsible personnel can use these materials in drafting his or her replies to social media questions. The institution answers all the message received except for offensive messages or threats of physical attacks. In the latter case, the screenshots of such messages can be taken and forwarded to the police (Respondent Health Board, 2021).

The institution frequently receives questions from citizens on a social network that are not in the area of responsibility of the Health Board. In such cases the team tries to find the necessary information by itself not redirecting a user to a responsible organisation (Respondent Health Board, 2021):

> "We do handle a lot of questions which are not a direct responsibility of the Health Board, for instance, questions regarding traveling which is not our responsibility but that's the information which is easily accessible for us. We don't send people away,

we just direct them to a correct web page or we get answers for them and give them answers" (Respondent Health Board, 2021).

The team usually answers users' messages and comments as soon as possible, usually up to a couple of hours – depending on a question. An employee in charge has notifications set up on the phone, hence he receives information on a new message or comment from a user on social media in real-time and can promptly react to that. Now, the organisation answers only during working hours, however, if the employee sees in the notification that the question raised is critical when he can start looking for information to answer that even at the non-working time. When the COVID-19 pandemic started, the Health Board used to respond to citizens' messages from social media around the clock (Respondent Health Board, 2021).

5.8   Work with public comments on social media of the government institutions

The GCU does not answer all the comments on Facebook, a Responder A (GCU, 2021) indicated. A reason for it is that there are no sufficient human resources for such a function. At the same time, the team can hide comments from citizens on social media – those "that are hateful, spam, contain threats, private information, misinformation or conspiracy theories, impersonate public figures" (ibid).

On the contrary, the Ministry of Culture (2021) has decided not to hide public comments on social media. The responsible team had done that only a few times – then, bad language was used (ibid):

> "We discussed it and we decided that we are not going to hide or change the reality. I mean, whatever happens on Facebook is public anyway, it is a public thing. We shouldn't be working to get only good words about what we do... As long as comments stay in good manners, in good language, we don't hide anything (sic)" (Respondent Ministry of Culture, 2021).

However, Responder (Ministry of Culture, 2021) adds that there are not many insulting comments on the social media account of the institution. The Ministry is aimed at answering all the comments where it is appropriate, or to react in another way – to thank for some suggestion or to like a user's comment. Another reason why the team does not answer all the public comments from citizens on social media accounts is that it requires a lot of time (ibid).

The team also pays attention not only to the Ministry's pages but also monitors comments regarding the activity of the Ministry on other accounts, such as of influential figures in a cultural affairs sphere in the country. If there is disinformation or wrong facts are

provided, they can leave their comments to correct the distorted facts or to provide another opinion to the discussion (ibid).

The MEAC rarely answers comments, sometimes it likes public comments from citizens (Respondent MEAC, 2021). A decision on whether to do it is based on a comment's content and the attitude of the team to it: "For example, [we] like when somebody says something supportive, [we] answer when somebody asks for further information" (ibid). The Ministry usually does not hide public comments, except for a few cases when public messages contained obscene language (ibid).

The MER does not answer all the public comments on social networks from users because of the lack of capacity (Respondent MER, 2021). Hence, the team monitors what is written in their comments and selects relevant messages to respond to. At the same time, not all the comments require any kind of reaction from an institution, the team admits: "Generally, comments can state something that you cannot really answer. We answer if we have something more to say than "Thank you for your comment" (sic)" (ibid).

In addition, the MER does not and did not delete public comments to prevent accusations from citizens who could notice this: "It comes as a gut feeling that if we delete some comment then it will be more and more asking where is the comment (sic)" (Respondent MER, 2021). However, the team may hide comments in case if comments call for violence or contradict Facebook policy; then, they can also report to the social network administration.

The Ministry of Environment rarely hides public comments – only when they "are really nasty" (Respondent the Ministry of Environment, 2021). At the same time, its communication team strives to answer public comments which content is relevant to the area of responsibility of the Ministry (ibid). At the same time, employees do that when possible – it depends on their time capacity. The interviewed representative shared that team members, who deal with media relations, are usually overloaded (ibid).

The Communication department of the MFA usually does not react to public comments – it is done occasionally and no rules regarding such work exist (Respondent MFA, 2021). The team could hide comments if their content is inappropriate (they are rude, irrelevant, or it is spam) (ibid).

The Public Relations team of the Ministry of Finance responds to public comments of citizens on social media – when they are relevant and inquiring for some information (Respondent the Ministry of Finance, 2021). Hence, the team does not answer comments that do not contain a question, do not expect any information, only express a user's

opinion (ibid). At the same time, the department can delete or hide some public comments that are malevolent, disrespectful or are overly negative (ibid). The team considers such decisions very carefully "and do not hide or delete comments lightly as this is also one side of democratic debate" (Respondent the Ministry of Finance, 2021).

The MRA's team can answer public comments on social networks, however, they do that rarely. Also, they usually do not react to public comments by liking. Although the team tries not to hide public comments, sometimes it is done – in cases if such comments are not polite, "misleading," etc.; But they do not delete them (Respondent MRA, 2021).

The Health Board can hide public comments on their social media accounts only in those moments when they are inappropriate, offensive towards other people or the institution. The representative of the institution indicates that there are rules indicated on the Facebook page that prescribe what users' comments are considered appropriate; if someone disregards them constantly, the team can eventually block this user (Respondent Health Board, 2021). The communication team also monitors all the comments and responds to users in comments in case if there is a concrete question asked. At the same time, they try not to interfere in a commentary feed too much (ibid).

5.9   Further use of citizens' input from social media by the government institutions

In the words of the GCU's Responder A (2021), it often analyses suggestions which concern the area of their work – about government communication and relating issues: government websites, communication strategies, misinformation, crisis, and visual communication, ongoing campaigns, press conferences, etc. (ibid). However, a majority of the input from citizens sent on social media are questions and complaints; suggestions and gratitude happen much rarely (ibid).

This observation is echoed by the Ministry of Culture. The institution appreciates constructive input received from social media (e.g., from heads of cultural organisations), however, in the majority, citizens do not suggest anything (ibid). More often, users complain about something or express their disagreement with Ministry's decisions or actions via networking platforms. However, the team does not exclude that it is possible to take and use citizens' suggestions sent over social media if they are being delivered.

The situation at the MEAC is similar. Content-wise, most of the voices received from citizens on social media are questions (Respondent MEAC, 2021). The team says that complaints or suggestions happen more rarely (ibid). In the situation when a citizen is willing to suggest something to the Ministry, he or she can send an official email to the

institution, and it will be delivered to a responsible person (e.g., officials, ministers, etc.), the Respondent (MEAC, 2021) suggests another way instead of using social media.

A majority of messages citizens send to the MER on social networking sites are of a generic nature that requires factual information and therefore does not need a lot of time to answer (Respondent MER, 2021). However, if there is some information delivered that pertains to the work of other departments, the communication team passes it forward. For example, it was done at the beginning of the COVID-19 pandemic. When citizens frequently asked the Ministry on social media to confirm that some schools understood and execute its order correctly. When it contradicted what was required, the communications team passed this information to a responsible department at the Ministry (ibid). In addition, citizens may demonstrate passive-aggressiveness in their messages to the Ministry (Respondent MER, 2021).

The Respondent from the Ministry of the Environment (2021) also indicates that suggestions have never been sent by citizens to the institution on social media. It is assumed that they might use more official channels for that. Content-wise, citizens on social media rather send requests to the Ministry or questions (ibid).

At the Ministry of Finance, all the suggestions sent via social media are taken seriously. If such information is relevant to the institution's work, the Public Relations Department "makes sure that it gets forwarded" (Respondent Ministry of Finance 2021). At the same time, the Respondent denoted that such messages "one or even 10" (ibid) cannot lead to amending legislation. Prevailingly, people address the Ministry with personal issues in their messages and comments on social media. More rarely, people might express their dissatisfaction or gratitude with something (ibid).

The same observation is echoed by the representative of the MFA who stated that citizens would rather use official channels of contacting the Ministry (e.g., by email), instruments of democratic participation, or bring up the issue in media, while aiming to initiate something, than posting their suggestions on social media (Respondent MFA, 2021). The voices they receive from users on social media accounts are of the general character – mostly minor requests or comments (ibid).

Comments and questions are also a prevailing character of all private messages which MRA receives from users on networking platforms. If any reasonable suggestion is sent, then having evaluated it by themselves, the team can pass this to a responsible department for consideration (Respondent MRA, 2021).

Content-wise, the Health Board receives a lot of private messages via social media with criticism. Additionally, users also report about something, for example, at the start of the COVID-19 pandemic – about breaking the rules of isolation by someone (Respondent Health Board, 2021). More rarely, people also send gratitude for the good work or make some suggestions. However, most of such comments cannot be used by the institution as they are fragmented, lack awareness about the situation, or are rather personal opinions on some matter (ibid): "Normally, we just thank politely… 90% suggestions are points of view of an individual who cannot see the whole picture. About 90% of suggestions, we cannot use" (Respondent Health Board, 2021). However, if an idea expressed by a user is valuable so that it can be applied, the organisation tries to pass it on to other departments, the responder adds (ibid).

5.10   Conclusion

Social media exploited in the Estonian government: All the government entities – ministries and ministers – have Facebook accounts. Twitter is in second place by popularity. YouTube, Instagram, and LinkedIn are exploited more rarely. The most followed government social media accounts are (in descending order by the number of followers): Twitter of the MFA, Facebook of the Health Board, Twitter of Prime Minister, Facebook of the MFA, Facebook of the MER, and the Estonian page of Facebook of the Government Office.

The division of responsibilities in the units working with social media: The communications teams of all the ministries divide their work by thematic principles: Each person is responsible for the same set of functions according to his or her area of expertise. Only in two government institutions (the MER and the Health Board), one person is dedicated to the task of processing citizens' messages and comments on social media. These organisations are among the most followed on social media in the whole Government and receive the highest number of messages and comments from social networks. In other departments, all employees answer users' voices depending on their topic. However, usually, all the team members have the right to administer social media accounts. Also, training on the work with social media is provided to personnel, however, not regularly and sufficiently.

Regulations and intentions to open messaging and commenting functions: Overall government communication is guided by the Government Communications Handbook developed at the Government Office. Besides that, three Ministries among interviewed (the Ministry of Culture, the MFA, the MER) established their internal policies on communications values and social media engagement. Other institutions either developed a kind of an oral policy with main rules and principles of work with social media or do

not have any internal regulations in place. Government institutions open messaging and commenting functions on their social media to ensure transparency, openness, trustworthiness, and responsiveness of their organisations to people.

Editing process in the work with citizens' voices from social media: Government institutions of Estonia receive most of the messages and comments from Facebook. The biggest influx of voices is processed by the Health Board and the MER. However, all institutions experienced a high increase in messages and comments sent to them from citizens at the beginning of the COVID-19 pandemic. Then, institutions resorted to help from all the employees of departments or even asked for external help. Institutions answer all the messages and comments from social media – which require additional information or contain a question. Two ministries' teams also try to react to all the voices by leaving some reaction to it. Personnel often look for an answer to users' voices in the public sources on official websites. The employees who are responsible for processing messages and comments from social networks usually do not approve their drafts of answers with anyone. Except for cases, when sensitive or complex issues (e. g., personal stories, questions regarding policies) are raised, then departments consult with other ministry's units or with other ministries. Departments deal differently with questions that do not concern their ministries' area of work – some of them redirect citizens and provide contacts of a responsible ministry to address. However, the majority tries to find the information by themselves and to answer such questions. Two ministries also have an automatic reply in their Facebook chats; This helps them redirect citizens whose questions do not concern the area of the ministry's work or inform on the time of reply to his or her question.

Work with public comments on social media of the government institutions: The Estonian Ministries do not delete public comments from users, however, they sometimes hide them – if such comments contain hate speech, bad language, offenses to other users, etc. A few institutions published commenting policies on their social networks. Almost all the ministries indicated that they cannot answer all the comments because of the lack of time and human resources, however, they monitor all the comments to understand the opinions of people and to leave reactions to some of them.

Further use of citizens' input from social media by government institutions:

All the communications teams do not receive suggestions from citizens which can be used in the work of their ministries via social media. However, if it happens, they can pass them forward to other departments to ensure that the information is delivered to responsible government entities.

6 Discussion

This section will discuss the results of social media, websites, and document analysis of the Estonian Government ministries and insights obtained from interviews with representatives of these institutions. The collected information about each of the government bodies will be compared to each other in order to find similar patterns or differences in their practices and approaches to reacting to citizens' voices on social media and make a conclusion on the practices of the whole Government. Moreover, they will be evaluated based on a theoretical framework employed for this analysis and the academic literature regarding this issue. The section is structured according to the research questions: First, it will be analysed how institutional responsibilities for interactive communication with citizens on social media are divided in the Government and what are organizational compositions of communications teams of the Estonian Government ministries. Then, it will be discussed how government institutions process citizens' messages and comments on official social networking sites. Finally, based on the analysis, the recommendations about the best practices observed will be noted. It might be of use for hands-on experts in their practical work as well as for theoretical implication for further research on work with citizens' voices on social media usage in governments of other countries. There is a limitation, however, mentioned in the methodology part, that interviews with not all the ministries were conducted. However, as the practices exploited and observations reported were overlapping, it gave an opportunity to make general conclusions on the work with citizens' voices in the whole Government.

6.1 How the institutional responsibilities are divided in the Estonian Government to respond to citizens' voices on social media

Different units are responsible for providing communications, including on social media, at the Ministries comprising the Estonian Government. Usually, such teams are structurally on the level of departments in a system of each Ministry, however, in one case – at the Ministry of Justice, communications are governed by a division that is a part of a General Department (Table 6.1). Also, this function is allocated to units that are different by their designation – they span from PR to communication(s) (hereinafter they are called by an overarching term "communications teams"). Such difference in structural compositions was also observed by Lovari and Parisi (2015) at Italian municipalities. They also identified that different kinds of offices were responsible for the management of social networks there – PR, press, or ICT offices, etc. This consequently led to different communication strategies employed to engage citizens on these networking pages (ibid, p. 208).

The communications teams of the ministries of Estonia often consist of people who are specifically in charge of a certain topic. Hence, they all perform the same set of functions (e.g., work with media queries, writing publications, etc.), however, based on their personal area of expertise. Social media and work with citizens' voices, thus, is only one of their daily tasks besides others. Such a division was observed in all ministries except two – the MER and the Health Board. However, it should be noted that the number of users' voices received from social media in these institutions is no numerous – only a few per month. Such a thematic division of work corresponds to the observation of Mergel (2013c) who states that functions of social media use can be dispersed inside a public sector organisation. At the MFA, this function is even divided between a few departments at the Ministry: The Consular department is working with a separate Facebook account dedicated to specifically consular questions and the Legal department in cooperation with other partners – with another Facebook account on legal issues of the European Union.

At the same time, two government institutions (the MER and the Health Board) allocated only one person in charge of the social media work, including answering citizens' messages and comments from there. Although there was no explanation for such institutional decisions obtained, however, it might be assumed that it was done to ensure the higher effectiveness and promptness of work with users' voices: These two institutions are those which receive the highest workload regarding the numbers of citizens' voices received via social media in the Government (Table 6.1). Hence, if there is one person in charge of this function, then he or she can ensure constant monitoring of all the citizen's voices received from social media and reply to them promptly.

In both cases – whether a few people are in charge of social media work or only one employee – all team members of communication departments in all institutions have rights of administration of Ministries' social networking accounts. There are a few reasons why it might be done in teams there only one employee is responsible for social media work. For example, the MER Respondent (2021) explained it with a security reason. Also, by this, colleagues can always perform this task instead of a responsible employee when he or she is absent. This is also beneficial in case if there is a need for all employees to help to perform this task in a situation with a high influx of users' messages as it was at the beginning of the COVID-19 pandemic (the Health Board). However, in such circumstances, a question of whether all employees have a necessary level of knowledge of social media administration occurs.

In this regard, communications departments of all ministries prevailingly strive to organise some training to upskill their personnel who is in charge of working with social media. However, it is done not regularly and systematically. This finding corresponds to

Edelman (2019) who found out that development of skills (for example, in areas of digital communications, in writing, press engagement, etc.) is an area of each Ministry's department and "appears to be ad hoc" (p. 31). Respondents interviewed mostly disclosed that their teams acquired social media skills as a result of hands-on work, especially in extreme conditions of the start of the COVID-19 pandemic when everyone's help was necessary rather than due to previous studies or workshops (Respondents MER, Health Board, 2021). Hence, they also recognised the need for and importance of introducing specialised training in a sphere of digital communications for the public sector.

Hence, the first recommendation is that the **allocation of one employee solely responsible for processing citizen's voices received on social media may depend on the numbers of such messages and comments** that a unit usually receives from users on social networks **and available human resources** at the department**. However, all team members should be provided with rights of social media administration of official accounts of an institution on social networking sites.

№	Institution	Department responsible for work with social media	Number of all employees	Number of personnel responsible for work with citizens' voices	Number of messages received[6]	Commenting policy on social media
1	**Government Office**	Government Communication Unit	10	2	5 per month[7]	On Facebook
2	**Ministry of Culture**	Communications Department	4	3 (divided by topics)	A couple per week	None
3	**Ministry of Defence**	Strategic Communications Department	6	n/a	n/a	None
4	**Ministry of Economic Affairs and Communications**	Public Relations Department	4	3 (divided by topics)	3 per month	None
5	**Ministry of Education and Research**	Communications Department	11	1	10 per month	None
6	**Ministry of the Environment**	Public Relations Department	5	divided by topics	1 message per day	None
7	**Ministry of Finance**	Public Relations Department	6	5 (divided by topics)	2-8 per month	On the blog
8	**Ministry of Foreign Affairs**	Communication Department	5(+5)	divided by topics	<10 per month	None
9	**Ministry of the Interior**	Communications Department	6	n/a	n/a	None
10	**Ministry of Justice**	Public Relations Division, General Department	4	n/a	n/a	None

[6] The numbers are approximate and based on the information provided by the interviewees as none of the departments interviewed collected any kind of exact statistics.
[7] The time periods are indicated according to the information provided by the interviewees.

11	**Ministry of Rural Affairs**	Public Relations Department	6	4 (divided by topics)	1-2 per month	None
12	**Ministry of Social Affairs**	Communication Department	7	n/a	n/a	On Facebook and the blog
13	**Health Board**	Communications Service	6	1	10 per day	On Facebook

Table 6.1   The division of responsibilities in the communications teams of the Estonian Ministries

The Government of Estonia developed the general Government Communication Handbook which guides employees in all ministries in their work and specifically on social media. This goes in line with the experience of other countries where guidelines have been developed for public sector institutions and their personnel to inform them about the opportunities and risks of social media (e.g., governments of Canada, South Africa) (Picazo-Vela et al., 2012, p. 506).

Similar guiding documents have been created also in a few Estonian ministries to define its social media strategy and engagement (e.g., the MER, the MFA). In particular, the Head of the Communications department at the Ministry of Culture initiated the development of an internal document that defined their institution's values. This document has been agreed upon in the whole Ministry and guides the work of the department. In particular, principles of "fast response" and "caring people" prompt the team to answer citizens' messages and comments as soon as possible. Moreover, guided by such values, they try to respond to users' voices even if they are not in the Ministry's competency.

Furthermore, the MER considers making social media a part of their document management which entails obligations by law for institutions to register citizens' messages as official queries and answer them in defined terms (of 5 or 30 days) (Respondent MER, 2021). By this, the Ministry equates social networking sites and users' voices from there to official queries and channels of communications:

"We are discussing within the Ministry how we should approach this because everything that is out there under the Ministry's name can be interpreted as the official statement… At the end of the day, it really does not make a difference for a citizen where he gets his information from the Government: Is it social media, phone, or email. But you can be quicker on social media" (Respondent MER, 2021).

However, the MER is a pioneer in the Government in such an intention and does not have an example to follow in developing such a policy (ibid).

Altogether, the Government Communications Handbook and the above-mentioned policies, cover a variety of aspects of communications for institutions. They, namely coincide with recommendations of Hrdinová and Helbig (2011) for government agencies on areas which are worth considering in creating a social media policy. Among them are employee access, account management from social media, acceptable use, employee conduct, content, security, legal issues, and citizen conduct. Hence, it guides the agencies in numerous possible situations.

The fact that the Government of the country is guided in its communications by already defined and regularly updated policy also exemplifies an "institutionalisation" stage of social media adoption in the public sector, according to Mergel and Bretschneider (2013, p. 392). This prescribes that institutions already developed a policy document that regulates their work with social networking sites (ibid, p. 394). This also corresponds to those Ministries which have created their own internal policies (e.g., the Ministry of Culture, the MER, the MFA).

Communications teams of other institutions have not embodied their policies in a written form but developed some kind of oral policies after discussions in their teams. Such verbal agreements have more details specifically in regard to how to process users' voices from networking sites such as not to open notifications about a new message if not entitled (the MER), do not argue with people (the Health Board), etc. These intentions correspond to the second stage of adoption of social media use in government in the framework of Mergel and Bretschneider (2013, p. 392). Here, public administration starts systematising and establishing formal rules and procedures regarding social media use (ibid, p. 392).

Such findings coincide with observations of Edelman (2019) who described the relationship between the ministries' departments and the central communications unit as "ad hoc" p. 29). The author noted that communications units at the government institutions in Estonia are "independent" and "do their own communications plan by themselves" (ibid, p. 29). Moreover, such initiatives of Ministries to develop their internal policies correspond to the recommendations of Lee and Kwak (2012, p. 501) who stated that open government initiatives (a part of which is social media) should be supported by senior leaders in order to ensure its sustainability. The authors, namely, advised management to define the goals of open government initiatives adopted by an institution and align it with its strategic mission (ibid) which was exactly done by the above-mentioned ministries. Indeed, although not being obliged to answer citizens' messages and comments on social networks, the interviewed Estonian ministries have still decided to enable messaging and commenting functions on their accounts in order to be transparent, open, quick, trustworthy, and responsive to people (e.g., the MEAC, the

MER, the Ministry of Finance, the MFA); These values and principles are indicated in their internal policies or a general government one.

Hence, it might be recommended for communications teams of public sector institutions **to develop a communications policy, guiding rules, and main principles in work with social media.** Such policies lay out the foundation and define a vision for employees on how to work with citizens' voices on social networking sites. At the same time, such policies might include more detailed instructions on what procedure to follow in processing users' messages and comments from social media. Moreover, it will ensure effective knowledge sharing among employees and in the institution. Such conclusion based on the example of the Estonian Government goes in line with recommendations of researchers who stated that public institutions should develop guidelines or strategies to ensure the effective use of social media (e. g., Margo, 2012; Bonsón et al., 2012, 2017; Meijer & Thaens, 2013; Picazo-Vela et al., 2012).

All of the Estonian ministries and ministers have a Facebook account (Table 5.1). Having also the highest number of users in the country among all other networking platforms, it constitutes the main social media platform in the country. Twitter is the second most used platform among the government institutions in Estonia. At the same time, some ministries indicated that they shot down the account on Twitter because they could not find relevant content for it (Respondent Ministry of Culture, 2021). YouTube is primarily used by Ministries for storing videos; they do not tend to promote their accounts there or to create separate products for the platform. Instagram and LinkedIn are not used widely, setting up an account on these sites might depend on personal preferences or abilities of communication teams. Additionally, ministries often exploit their specialised blogs which give a platform for other experts of the institutions to provide a qualified overview of Ministries' decisions, activities, and sharing thoughts on up-to-date topics.

In a majority, the functions of administration of social media accounts of institutions and private social media accounts of heads of the government agencies are differentiated. Personal networking accounts of high officials are mostly administrated personally (by ministers themselves, their political advisors, parties, etc.). Only a few communications teams (Ministry of Culture and, partially, the MFA) are in charge of managing some personal accounts of their institutions' heads. Hence, it might be useful **to develop a preliminary communication plan for a social media account before setting it up. Also, responsibilities and who will be in charge of managing such an account should be defined.** Planning of the tasks for employees to perform regarding social media use will prevent their overload, as warned by Mergel (2012a). Thus, adopting a new social network should correspond to an institutional capacity of an organisation.

Facebook is also the main source of citizens' messages and comments received by communications teams at all Ministries. All the respondents indicated this platform is the main means for direct communication with citizens. This might be explained by a few reasons – first of all, this social network is the main in the country with the biggest audience, secondly because of its technical characteristics – as it provides a messaging function for users. To a much lesser extent, citizens in Estonia also send messages to the Government through Instagram.

The numbers of messages which organisations receive on networking sites differ substantially – from 1-2 per month to 10 questions per day (Table 6.1). A number of messages also depend on external events in the area of a ministry's responsibility. For example, in the case of the MER, it depends on the academic year. The team usually receives a higher number of messages from citizens via social media at the time of the start of a school year, or during examination (Respondent MER, 2021).

Moreover, all interviewed departments testified to an increase in citizen's messages and comments at the beginning of the COVID-19 pandemic. For some ministries, the number of messages sent by users on social networks skyrocketed a few times. This crisis highlighted the importance of social media for the public sector as people primarily resorted to social networking sites in order to get information from the Government:

> "During the COVID-pandemic, we experienced that people were really expecting the Ministry to be really active and present on social media. Like constantly refreshing our website and social media to see "Ok, is there anything new that we need to know?" (sic)" (Respondent MER, 2021).

This reflects the idea of researchers that the public expects that public sector institutions will be available and accessible via social networks (Bertot et al., 2012, p. 31; Wukich & Mergel, 2015, p. 710); and this is even more exacerbated at the time of crisis. Mostly all of the communications teams shared that at that time they had to involve all personnel to work with citizens' voices from social networks in order to cope with their increased influx, change their responsibilities workload. Some of the institutions even asked for external help from outside of the organisation. To a great extent, this indicates that departments promptly adapted to fast-changing circumstances to increase the efficiency of their work and demonstrated speed and flexibility which are required for successful work with social media (Berthon et al., 2012, p. 269).

There is an exemplary case of MER in such a situation: When the pandemic hit, a responsible employee, and later the whole team, was not able to deal with all the messages from citizens on social media. Hence, the department resorted to the help of all the MER's

employees. It announced a Q&A session on the Ministry's Facebook account and called on users to leave their comments under a certain post. All the institution's officials could answer citizen's comments at the defined time and provide the most up-to-date information to people. This helped to decrease an influx of private messages and questions from citizens on social media. The department also used the obtained information for creating a Q&A section for the Ministry's website which they could provide users further (Respondent MER, 2021). Such a case also demonstrates "a pull strategy" (Mergel, 2013a) when an institution solicits some information from the social media public and further use it.

The team did two such live commenting sessions on Facebook: The first post on March 13, 2020, gathered 121 likes, 211 comments, 120 shares which is a high result of citizens' reactions to social media posts of the Estonian government institutions (MER, 2020a). The second session was less intense: 30 likes, 27 comments, 50 shares (MER, 2020b). Hence, it showed that all the personnel even those who are not usually involved in the task of answering citizens' voices or work with social networking sites have to be trained and have a basic understanding of security and work with social media. This coincides with the statement of Shan et al. (2015) who pointed out that employees responsible for work with citizens' voices from social media must be properly skilled.

Therefore, **if responsible personnel cannot cope with an increased influx of messages and comments from citizens such as at a crisis time, other employees should be involved in the task**. This will help to satisfy the need of citizens for up-to-date information from an institution and eliminate spreading distorted or fake news among users. At the same time, **it is necessary to ensure proper training for all team members regarding the work on social media so that everyone could be prepared to take on this task** in answering citizens' messages from social networks in case of such a need.

6.2.   How the Government of Estonia process citizens' messages and comments on social networking sites

People who are in charge of the function to react to citizens' voices on social media at the Estonian Ministries are not obliged to clear their answers before sending them to users. There are a few reasons for that have been identified by interviewees. First of all, because messages are allocated to personnel who are experts in a certain area, they do not need to approve their drafts of answers with anyone as they are already the ones who are the most knowledgeable in the topic. Secondly, users' messages or comments are often of a generic character: In order to answer them, employees often look for the necessary information in open sources and publicly available websites (e.g., the MER, the Health Board). Hence,

such answers do not to be cleared additionally. Moreover, citizens' questions from social media are also repetitive, thus, personnel who are working with them, are deeply aware of the topic and know the answers already (Respondent MER, 2021). At the same time, as Respondent MER (2021) denoted, an absence of control entails certain responsibility for the information which an employee sends to a citizen:

> "I have this freedom that I don't need to get anyone's approval, but it also comes with responsibility. Whenever I interpret some issue wrongly or I haven't replied correctly, then, of course, I have to take responsibility and… to say sorry to the citizen (sic)" (Respondent MER, 2021).

At the same time, questions and drafts to them can be discussed collectively inside teams before sending to find the best possible answer (Respondent Ministry of Culture, 2021).

The exception is, however, for the information which concerns other departments, or of sensitive, complex questions which require considering opinions of different actors (such as about the policy) (ibid). Also, it might be a need to consult with other units or approve a draft of an answer, when additional information is needed to reply to a citizen's message. Then, a head of that unit will be approving a draft of the answer (Respondent MRA, 2021). In this regard, departments and Ministries comprising the Estonian Government cooperate with each other tightly and can easily approach each other. This might be because it is defined by the principles of the general policy of the Government Communication Handbook.

Hence, another recommendation if that there is **no need to clear drafts of answers to citizens' messages or comments from social networks.** This is an extra, time- and effort-consuming step which might be avoided as an employee is experienced in processing users' voices, consult with publicly available, official information, or is deeply aware of the topic of his or her response. However, **except for the cases when a question is complex or sensitive and require consideration of multiple stakeholders**; then, consultations with other involved institutions is needed.

The cooperation between ministries is also beneficial in cases when a citizen's message or comment does not concern the area of responsibility of a Ministry they addressed. This happens quite often, the responders indicated. Communications departments deal with such situations differently, however, a prevailing practice is that they try to respond to a user's question and try to find the necessary information by themselves first. Respondent of the Ministry of Culture (2021) explained it like this:

"We try to do it as much as possible. Because if you look at the state communication as a building and there is one door at the front side, and a citizen approach it and knock on it, it will be not correct for us to tell the person "Go to another door, it must be another door somewhere else." Let's not waste time, it is our job to give answers… A citizen, whoever he is, comes to us with the best hopes to get the answer as fast as possible, so we don't want to cheat them (sic)" (Respondent Ministry of Culture, 2021).

Thus, it might be recommended to public sector institutions to answer questions from citizens received on social media even if it does not fully correspond to the area of the expertise of this agency. Such a gesture help create an image of a responsive, open, and helpful institution for citizens.

The interviewed teams strive to answer citizens' messages as soon as possible. This corresponds to the recommendations of Lee and Kwak (2012) who stated that it is necessary for public sector institutions to reply promptly to public comments on social media. Promptness is ensured, in particular, as responsible personnel (at the MER and the Health Board) have phone notifications and can track the content of messages received and the time. If the question is urgent, an employee can start looking for information to answer a question immediately, even at the non-working time. However, it was observed only at one institution – the Health Board. Usually, it takes for the ministries up to a few hours to reply to citizens' voices and is done during a working day.

Moreover, usually, the communications teams of the ministries strive to answer all the messages and comments they receive from social media, except for messages containing insults or threats, offensive, hateful language, spam or hatred, etc. However, the interviewees widely indicated that far not all the voices sent by users require any kind of response or information, but just express an author's opinion (Respondent Ministry of Finance, 2021). These findings coincide with the results of the research on social media marketing in the public sector on the example of the MER and the Ministry of Culture of Estonia done by Nõmmik (2018). Analysing how the virtual communication between the public sector institutions and users on social media is conducted on the example of these two ministries, the author found out that government agencies tended to answer those questions from citizens which inquired additional information or explanations (ibid, p. 40). Hence, the answers of ministries to the public comments were mostly of an explaining character (ibid, p. 40). This observation was summarized by the Respondent of the Ministry of Culture (2021):

"We don't have to answer the question when we don't have a question. Sometimes people write to give an opinion about something, then we have to say "Thank you,"

and consider the opinion, if possible… Sometimes people leave comments, and we give "like." Even if it is anything to really leave a reaction to. But we still strive to do it – to show them that "We are present, and we have noticed that you are here" (sic)" (ibid).

Similarly, MER in any way tries to react to private messages from users.

Thus, it seems a good practice **to strive to answer all the messages from citizens on social media and to ensure it in a timely manner. For other messages or comments**, where a response or additional information is not needed, **it might be reasonable to leave any kind of reaction.** This will create a feeling of the presence of an institution and will give a sign to a citizen that his opinion was read and considered. Secondly, it can be a solution for teams that do not have the personnel capacity to answer public comments of users. Moreover, it might also have a good effect on the publicity of an institution as a user could share the news that he or she got some reaction from a ministry in his or her feed. Hence, more people will hear about a ministry, which will be promoting a positive reputation of it.

Regarding private messages specifically, one of a possible form of ensuring such a constant reaction to a user's voice is **to set up an automatic reply in a messaging chat of an institution**. This is practiced, in particular, by the MER and the MFA. When a citizen sends a private message to the MER on Facebook, he or she automatically receives an answer "Thank you for writing to us, we will get back to you as soon as possible" (Respondent MER, 2021). The MFA, on the contrary, warns that if a question concerns consular issues, a user should contact the Consular hotline service on Facebook instead (Respondent MFA, 2021). Hence, such automatic messages could give a citizen either additional information on the time in which a message will be answered, thereby easing his or her worries on whether the message was seen and will be replied to. Alternatively, it could help redirect a flow of messages to another channel if citizens tend to address an institution mistakenly thereby decreasing the workload on a responsible employee.

Moreover, a few departments disclosed that they strive not to engage in direct conversations with users on social media either in private chats or in comments as new answers from a ministry will be provoking additional questions. The explanation was identical in all cases – the lack of time to conduct such a task: "If you start a big conversation, it can take a lot of hours to keep it, and you have to be ready for that and to know whether it is worth it or not" (Respondent Ministry of Culture, 2021). The same reason was indicated as the one preventing institutions to answer all the public comments from users. Therefore, they monitor all the comments and "cherry-pick" which exactly to

answer (Respondent MER, 2021). Primarily, these are comments that require some information or have a question.

The lack of human or time resources is a barrier impeding the usage of social media in the public sector widely identified by researchers. Hiltz et al. (2014) similarly revealed that lack of personnel time was regarded as a barrier for social media usage among U.S. public sector emergency managers. Similarly, Lee and Kwak (2012) identified that substantial time resources are required to maintain social media. Many senior executives at the U.S. federal healthcare administration agencies analysed by the researchers discontinued their blogs because it was difficult for them to reply to users' comments in a timely manner (p. 493). The lack of the capacity and staff expertise to manage social media were also among the main concerns about social media for the US non-profit organisations and county departments involved in the delivery of human services that were analysed by Campbell, Lambright, and Wells (2014, p. 660). At the same time, this experience of the Estonian Government might be useful for other communications teams of the public sector institutions, especially those which have limited personnel composition: It might be better **to avoid live chats with users on social media if their teams have limited human and time resources.**

Speaking about public comments on social networks, although the communications teams are not able to answer all of them, they monitor public comments on social networks – not only Facebook but also Twitter (e. g., the MER). This completely corresponds to the recommendations of Picazo-Vela et al. (2012) who pointed out that the government should monitor information and comments on social media (ibid, p. 510). Such "a passive strategy" gives public sector institutions an opportunity to observe and gather important information from their public (Mergel 2013c, p. 331), researchers denote. Hence, **if there are limited human and time resources, the team should answer the most relevant public comments but monitor all of them.**

Moreover, all of the teams strive not to interfere and not to hide public comments. They are cautious of this in order to preserve a democratic debate (Respondent Ministry of Finance, 2021), not to hide the reality (Respondent Ministry of Culture, 2021), and not be accused by other users (Respondent MER, 2021). However, except for only one institution which totally refused this idea, all interviewees recognised that they rarely have to hide some comments – in cases when they are inappropriate, not respectful to other users, have offensive language, insults, etc. If a user continues behaving rudely in respect to others and violate a social media policy of an institution, the Health Board can even block a user.

In this regard, some of the government institutions published policies on their social media accounts (Table 6.1) exhorting users to a polite, respectful behaviour and warning in which circumstances their comments might be deleted. These are usually obscene language, offenses, hatred, incitement to violence, etc. This corresponds to the third "institutionalisation" stage of social media adoption by the public sector according to the theoretical framework of Mergel and Bretschneider (2013) foreseeing that institutions already have formalised policies, including ones regarding users of networking sites and their comments (ibid, p. 395). Moreover, publishing commenting policies by these institutions is an example of the netiquette proposed by Mergel (2013c) which defines what an agency treats from users on their social networking sites as appropriate. Publishing such a policy legitimises hiding offensive comments that do not respond to defined requirements by an institution.

Thus, communications teams should **publish a commenting policy for their social networks which will set expectations to users on social media and foster respectful cooperation among users on networking accounts of a public sector institution.** At the same time, having published a policy, a government agency should follow it by itself and **not delete or hide public comments other than those that contradict the defined expectations**. Along with that, it might be useful to mention in the description of the page who is governing it and leave contacts for users in case of official queries. It will also help decrease an influx of messages on social media and will establish the proper understanding for users who are they conversing with.

Although studying the content of citizens' voices was not in the focus of the paper, a side effect that was found out as a result of the analysis is that the majority of citizens do not suggest anything in their private messages on social media. On the contrary, they use this direct channel of communication with the public sector to inquire on personal matters, solicit some information from the government, and ask something. Most of the interviewees confirmed that suggestions from users happen rarely: "During the two and a half years I have worked here, I can't remember any case when somebody sent such a suggestion (sic)" (Respondent Ministry of the Environment, 2021).

As indicated by representatives of communications teams of the Estonian ministries, a majority of voices they receive from citizens on social networks are questions, complaints, disagreements, private issues, or information about something. This finding corresponds to the results of a case study of the municipality and a city in Sweden by Bellström, Magnusson, Pettersson, and Thorén (2016). The researchers analysed the content of users' posts on local governments pages on Facebook and revealed that citizens primarily addressed municipalities with questions and requests, they strived to share some

information and to express their opinions (ibid, p. 562). The same conclusion was done by Zhang and Lin (2015) who examined interactive communication of 20 airlines on Facebook with their customers. Their analysis showed that the main reasons why citizens initiate communication on social media are information seeking and grievance.

Such results might be important for further research on how social media can be used for co-creation and co-production. In particular, Bertot et al. (2012) argued that one of the key research questions related to the issue of social media and policy objectives is towards how government institutions can best incorporate feedback produced on social media into policy- and decision-making (p. 36). On the contrary, the observations of the Estonian employees who directly work with users' voices on social networking sites show that citizens do not use it to share their inputs for the public good but rather to solve personal problems or express their disagreement with a public sector institution. One of the reasons for such a tendency is that people might prefer using official channels of communication for a serious proposal, as assumed by Respondent from the MFA (2021).

Moreover, the respondents indicated that although gratitude from citizens on social networks happens, they more often express their disagreement with actions or decisions of the ministries, complain, dissatisfaction, or demonstrate "passive-aggressiveness" (Respondent MER, 2021). This might contribute to the academic research on whether citizens on social networks tend to criticise or support the public sector institutions as pointed out by Bonsón et al. (2015, p. 59).

At the same time, Estonian ministries are open to process suggestions from citizens if any is sent. Although only at one ministry (the Ministry of Finance) it was firmly indicated that all the relevant information from social media is taken seriously and is passed forward, other institutions also stated that users' suggestions sent via social media are important and will be eagerly looked at. If there is also some information delivered that pertains to the work of other departments of a ministry, then communications teams are ready to pass it forward to a responsible unit. Hence, it can be **recommended to pass further citizens' input sent via social media to responsible units in a government organisation**. It will help ensure that citizens' voices are considered by public sector institutions in their work.

Hence, it can be concluded that the Government of Estonia is already on the third, "institutionalisation" stage of adoption process for social media use in the public sector, according to the framework of Mergel and Bretschneider (2013). First, the government communications policy is already in place which define the main principles of work with social media. Ministries separately also developed internal documents or oral policy to establish general rules and values of work with social networks. Although a process on

how to work with citizens' voices specifically is not described in such documents, social media is always recognised as a part of government communications and regulated by them.

All recommendations on how to divide institutional responsibilities in the team to communicate with citizens on social media interactively and process such users' comments and messages collected from the example of the Estonian Government are summarised in the table:

A division of institutional responsibilities	
1	A communications policy should be developed which will define the main guiding rules and principles of work with social media for a unit and its employees.
2	A communication plan should be created before joining a new social network. It should define who will be in charge of managing this account and what content will be published.
3	One employee in the team can be entitled to process citizen's voices from social media if the number of messages and comments usually received is high. Citizen's voices from social networks can be also processed by a few employees based on their areas of expertise and content of users' message or comments.
4	If responsible personnel cannot cope with an increased influx of messages and comments from citizens on social media (e. g., in cases of crisis,), other employees, including from the whole government institution, could be involved in this task.
5	Proper training for all team members regarding the work on social media should be ensured so that everyone could be able to take on the task of processing citizens' messages and comments.
An editing process of answering citizens' voices from social media	
6	Answers to citizens' messages or comments from social networks can be sent without clearance from supervisors, except for complex or sensitive questions which require consideration of multiple stakeholders.
7	It is advisable to try to find necessary information for a citizen and answer his or her question even if it does not correspond to the area of an agency's work rather than send him or her to another government institution.
8	An institution should strive to answer all messages and comments from citizens on social media and to do it in a timely manner. For messages or comments which do not request any additional information, any kind of reaction (e.g., "like") should be left. A team should look through all public comments.
9	An automatic reply in a messaging chat of an institution should be established welcoming a citizen or informing on a preliminary waiting time for a reply.
10	Engaging in live conversations with users on social media in private chats or in a commenting feed should correspond to available time and human resources of a communication team.
11	A commenting policy of an institution for the expected conduct of users should be published on their social networks. An agency should not delete or hide any public comments other than those that contradict the announced policy.
12	If relevant, citizens' input sent via social media should be passed further to responsible units in a government organisation.

Table 6.2   Recommendations on how to process citizens' voices on social media by a public sector institution

Conclusion

Social networking sites are growingly exploited by public sector institutions worldwide. They give government actors a cheap and fast channel to reach the desired public and directly inform them about their news and activity. At the same time, social media also simplified access to public sector organisations for users and gave them an instrument on how to address government directly – via public comments or private messages. Hence, public sector institutions adopting social networks are inevitably faced with the question of whether to enable messaging and commenting functions and how to deal with messages or comments from citizens which will be sent.

The academic literature on the use of social media by the public sector offers a limited answer on how two-way communication on a social network should be provided by a government institution. Moreover, it overlooks the question of how private messages are and should be processed by public administration. Hence, there is a growing need to investigate how the public sector deals with citizens' voices on social media. This paper was intended to contribute to the revealed research gap and to provide insights on how this work is done in the Government of Estonia. The experience of one of the leading countries in e-Government (European Commission, 2020a, 2020b) in two-way communication with citizens on social media might be also useful for the public sector of other countries and their communications teams and academic research in the social media use in the public sector.

Hence, by analysing the work of 13 government institutions of Estonia, the paper strived to answer the research question on how the Government of Estonia organises itself to deal with citizens' voices (comments and messages) on social networking sites. Two sub-questions were in the focus: How institutional responsibilities for two-way communication with citizens on social media are divided in the institutions comprising the Government of Estonia and how they process citizens' messages and comments on their social networking sites.

To answer these questions, the paper exploited a theoretical framework by Mergel and Bretschneider (2013) who proposed a three-stage adoption process for social media use in government. This allowed to analyse how citizen's voices are processed with regard to institutional aspects of responsible communications teams. Moreover, an embedded, qualitative case study approach with data collection techniques of a structured interview, document, and social media analysis has been employed. As a result, representatives of nine government institutions have been interviewed for this research. This enabled obtaining comprehensive information on the institutional aspects of the government

communications teams, social media exploited, and ways of how citizens' voices are processed.

The obtained results showed that although some differences are observed among the ministries, the Government of Estonia as a whole is on the third, "institutionalisation" stage of the adoption process for social media use in the public sector, according to the framework of Mergel and Bretschneider (2013). The communication of the government is regulated by a general comprehensive policy document – Government Communication Handbook. Moreover, internal documents or oral policies were developed and established by communications teams in the ministries. Although there are no strict instructions on how citizens' voices should be processed, these documents define the main principles and values which guide employees in their work with social media and two-way communication with users.

The findings on how the institutional responsibilities are divided in the Government of Estonia to respond to citizens' voices correspond to the previous research on the use of social media in the public sector that identified that such functions can be performed by a few employees in the team or units in the institution. The case of Estonia also illustrates that one dedicated employee can execute this task more efficiently in the case of high numbers of users' voices received from social media. At the same time, it is important to train and prepare all team members to use social media and process citizens' voices which will be of help in times of crisis.

Moreover, the case of the Estonian Government also echoes the academic research stating that citizens expect public sector institutions to be present and responsive on social media (Bonsón et al., 2017). At the same time, the case testified the importance of communication with users on social media by the public sector in an emergency such as it was at the beginning of the COVID-19 pandemic. All ministries testified that an influx of citizens' voices on social networks increased a few times and users primarily went to the social media accounts of institutions to obtain the most up-to-date information.

Furthermore, although the government institutions of Estonia are not obliged to answer citizens' messages and comments from social networks, they enable messaging and commenting on their social networks to ensure transparency, openness, trustworthiness, and responsiveness of their organisations to people. Moreover, one ministry is considering a possibility to make social media a part of their document management. This will equate social networks to official channels of communications and messages from them – to official queries regulated by law. Such a pioneering step portends the growing importance of work with social media voices from citizens by the public sector. This also demonstrates that providing two-communication and answering citizens' messages and

comments is an important component of social media use for the public sector. Hence, government agencies need to build a proper institutional structure and processes in their teams to ensure that such work is done.

Additionally, the experience of the Estonian Government on how to process citizens' messages and comments on social networks illustrate the recommendations of researchers on the use of social media in the public sector. In particular, it corresponds to observations that two-way communication with users should be done promptly and the public sector should monitor all public comments in order to learn the opinions of the public.

The obtained results also go in line with the academic literature which identified that the lack of human or time resources can be a barrier for the usage of social media in the public sector. At the same time, the case revealed a row of insights which might be useful for other institutions who has limited capacity to work with social media. For example, it might be useful not to engage in live conversations with users, to answer only the comments and messages which require additional information but to leave reactions to others, and to set up an automatic reply in a private chat to regulate a flow and content of incoming messages. These observations from Estonia also shed light on why government institutions decide not to engage with citizens on social media or whose two-way communication with users is limited. This might be of help for the research analysing a level of engagement of government agencies and users on social networking sites.

Based on the best practices exploited by the Government of Estonia, recommendations on how to process citizens' voices on social media for public sector institutions have been proposed. In particular, it is advised to develop a communications policy and a communication plan which will define guiding rules and principles of work with social media, a responsible employee for managing social media accounts, and the intended content. Communications teams can allocate a few employees to process citizen's voices from social networks based on their areas of expertise, however, the one responsible employee might be more effective in processing higher numbers of citizen's voices. In case of a crisis, other employees, including from the whole institution, might be involved in this task to process an increased influx of messages and comments. Therefore, all team members should be properly trained to work with social media.

Moreover, answers to citizens' messages or comments from social networks do not need to be cleared by supervisors but sensitive questions should be discussed with all stakeholders. The work with other departments and government institutions is also important to process users' suggestions. Government institutions should try to answer all the voices received from social media even if their content does not correspond to an agency's area and do it promptly. A team should look through all public comments and

leave reactions to messages or comments which will not be answered. An automatic reply in a messaging chat of an institution will help to inform a citizen on a preliminary waiting time for a reply and regulate the content of incoming messages. A team should publish a commenting policy on their social networks to inform users of expected conduct; No other public comments should be deleted or hidden except for those that contradict the announced policy. At the same time, engaging in live conversations with users on social media in private chats or a commenting feed might be time-consuming for government institutions that do not have sufficient time and human resources.

Limitations

Except for a few institutions, the public of social media accounts of the institutions comprising the Government of Estonia is not numerous. In particular, the numbers of subscribers and followers of the official accounts of Estonian ministries span from a few hundred to 45 thousand. As a result, the institutions do not receive a high number of messages and comments from citizens on social networking sites. Although the influx of users' voices increased at the time of the COVID-19 pandemic, usually, communications teams receive approximately a dozen messages per month. This gives sufficient time for employees to consider the question, find the necessary information, and prepare the answer thoroughly. Thus, not all the findings from the experience of Estonia might be relevant for those governments which are addressed with hundreds of messages and comments from citizens on their social networks and have the limited personnel capacity to work with them. This raises a question of a possibility to generalise these findings to other countries where the intensity of citizens' voices on social media is significantly higher (Meijer & Thaens, 2013).

At the same time, the fact that not all the ministries of the Government agreed to be interviewed for this research limited the completeness of the results of the whole case study. The analysis reached a level of "theoretical saturation" (Hiltz et al., 2014) when observation and practices reported started to become repetitive, hence the information from a majority of the ministries was extrapolated on all governments. However, the information about the four ministries missing would be beneficial to prove or extend the list of recommendations defined based on the example of Estonia.

Moreover, there was no access for the author of this paper to the internal documents on communications values and social media policies of the departments. Hence, all the data obtained on this matter is based on the information provided by responders to the extent they were willing to share. Thus, the result of the document analysis is limited to only publicly available documents which is the main communication policy of the Government – Government Communication Handbook.

For the same reason, the results of the social media analysis are limited to only the publicly available information: on the number of followers and subscribers, commenting policies, the information about the administrators of pages. However, the data on the private messages is provided only from the words of the responders and could not have been verified. Moreover, only the approximate numbers on the numbers of private messages received by the ministries were given as none of the communications teams gather any kind of statistics. Furthermore, although the main essence of the government communication and social media commenting policies which are provided in the Estonian language has been outlined, some clauses might have been interpreted not exactly as it is in the original document because of the limited language capacity of the author.

Additionally, a method of a structured interview employed in the paper did not enable extracting further details on the internal practices of the government institutions. This method was employed to ensure comparability of results from the oral and written interviews, however, it limited possibilities to extract more information from the representatives of the communication teams interviewed.

Moreover, the theoretical framework employed in the paper by Mergel and Bretschneider (2013) does not allow identifying why the Government of Estonia appeared on a certain stage of the adoption process for social media use. It shed light on the characteristics of a certain adoption stage and enabled analysis at which phase in this process the government institutions of the country are now. At the same time, it does not allow distinguishing how the organisation reached this level and what exact reasons allowed them to demonstrate such results in the adoption and usage of social media.

Finally, it is not analysed in this paper how the government institutions of Estonia provoke the engagement of citizens or two-way communications on their social networking sites. In particular, it was not intended to analyse the content of the posts of the ministries and the comments or messages of their users on social media. The focus of this research was specifically paid to how the Government of Estonia organise itself to deal with citizens' voices (comments and messages) on social networking sites. For this, the institutional structure of the responsible teams and editing processes practiced by them were the focus of the analysis. Hence, it was important to study not *what* the ministries answer to citizens but *how* they do that.

Future research and recommendations

This paper strived to analyse how the Government of Estonia processes citizens' messages and comments on social media and identify best practices that can be recommended for other government institutions as well as to contribute to the academic

research on the use of social media by the public sector. However, there are a row of possible directions for further research in this area.

First, the analysis of the government of the country which receives higher numbers of citizens' voices is needed. It will help obtain a broader vision of how the public sector institutions process users' voices from social networks. Hence, it would be insightful to compare practices of governments with different settings regarding the intensity of the influx of citizens' voices and personnel capacities. Moreover, such research should be also conducted based on the cases of governments from other regions of the world and different political systems. This will enable conclusions whether some external factors impact how communications teams of the public sector institutions can process citizens' voices from social media and what factors.

Furthermore, future researchers could extend the analysis of how the public sector deals with users' comments and messages by studying also the content of citizens' private messages and institutions' replies. For this, access to information that is owned by government organisations is needed. It will allow obtaining verified information of what institutions answer citizens on social media in their private messages, but not only how.

Moreover, some governments do not open commenting and messaging functions on their social networking sites. Hence, it is also important to learn why such public sector institutions decided not to enable these functions and deprived users of an opportunity to address them directly. Such findings will enrich the academic research on the barriers of social adoption by the public sector by exploring the reasons prompting public administration to refuse from direct two-way communication with their public.

References

Bellström, P., Magnusson, M., Pettersson, J. S., & Thorén, C. (2016). Facebook usage in a local government: A content analysis of page owner posts and user posts. *Transforming Government: People, Process and Policy, 10*(4), 548-567. DOI 10.1108/TG-12-2015-0061

Berthon, P. R., Leyland F. P., Plangger, K., & Shapiro, D. (2012). Marketing meets Web 2.0, social media, and creative consumers: Implications for international marketing strategy. *Business Horizons, 55*, 261-271. doi:10.1016/j.bushor.2012.01.007

Bertot, J. C., Jaeger, P. T., & Grimes, J. M. (2010). Using ICTs to create a culture of transparency: E-government and social media as openness and anti-corruption tools for societies. *Government Information Quarterly, 27*, 264-271.

Bertot, J. C., Jaeger, P. T., & Hansen D. (2012). The impact of policies on government social media usage: Issues, challenges, and recommendations. *Government Information Quarterly, 29*, 30-40. doi:10.1016/j.giq.2011.04.004

Bonsón, E., Torres, L., Royo, S., & Flores, F. (2012). Local e-government 2.0: Social media and corporate transparency in municipalities. *Government Information Quarterly, 29*(2), 123-132. https://doi.org/10.1016/j.giq.2011.10.001

Bonsón, E., Royo, S. and Ratkai, M. (2015). Citizens' engagement on local governments' Facebook sites. an empirical analysis: The impact of different media and content types in Western Europe. *Government Information Quarterly, 32*(1), 52-62.

Bonsón, E., Royo, S., & Ratkai, M. (2017). Facebook practices in Western European municipalities: An empirical analysis of activity and citizens' engagement. *Administration and Society, 49*(3), 320-347. DOI: 10.1177/0095399714544945

Brainard, L., & McNutt, J. (2010). Virtual government–citizen relations: Informational, transactional, or collaborative? *Administration and Society*, *42*(7), 836-858. DOI: 10.1177/0095399710386308

Campbell, D. A., Lambright, K. T., & Wells, C. J. (2014). Looking for friends, fans, and followers? Social media use in public and nonprofit human services. *Public Administration Review*, *74*(5), 655-663.

Castaños, V. (2018, March). *Mission-oriented R&I policies: In-depth case studies. Case Study Report: e-Estonia* [Brochure]. European Comission. Retrieved from https://jiip.eu/mop/wp/wp-content/uploads/2018/10/EE_e-Estonia_Castanos.pdf

Constantinides, E., & Fountain, S., J. (2008). Web 2.0: Conceptual foundations and marketing issues. *Journal of Direct, Data and Digital Marketing Practice, 9*, 231-244. DOI: 10.1057/palgrave.dddmp.4350098

Cormode, G., & Krishnamurthy, B. (2008). Key differences between Web 1.0 and Web 2.0. *First Monday*, *13*(6), 1-19.

Country blog. (n.d.). Maablogist [About the country blog]. Retrieved June 2021 from https://maablogi.wordpress.com/maablogist/

Edelman. (2019, June). *Review of International Practices in Government Communications: Prepared for the Goverenment of Ireland* [Brochure]. Retrieved from https://www.ops.gov.ie/app/uploads/2019/11/3.4.5-Resources-document-Review-of-International-Practices_Edelman-SENT-1308.pdf

European Commission. (2019). *Digital Government Factsheet 2019: Estonia* [Brochure]. ISA2. https://joinup.ec.europa.eu/sites/default/files/inline-files/Digital_Government_Factsheets_Estonia_2019.pdf

European Commission. (2020a, September 23). eGovernment Benchmark 2020: eGovernment that works for the people. Retrieved October 2020 from https://ec.europa.eu/digital-single-market/en/news/egovernment-benchmark-2020-egovernment-works-people

European Commission. (2020b). Digital Economy and Society Index. Retrieved October 2020 from https://ec.europa.eu/digital-single-market/en/desi

Faber, B., Budding, T., & Gradus, R. (2019). Keeping in touch with citizens online: Social media usage in Dutch local government. *Tinbergen Institute Discussion Paper 2019-001/VIII*. http://dx.doi.org/10.2139/ssrn.3312954

Foreign Consul of the Ministry of Foreign Affairs. (n.d.). About. Facebook. Retrieved June 2021 from https://www.facebook.com/veebikonsul

Gintova, M. (2019). Use of social media in Canadian public administration: Opportunities and barriers. *Canadian public administration / Administration publique du Canada, 62*(1), 7-26. https://doi.org/10.1111/capa.12298

Goncalves, J., Liu, Y., Xiao, B., Chaudhry, S., Hosio, S., & Kostakos, V. (2015). Increasing the Reach of Government Social Media: A Case Study in Modeling Government–Citizen Interaction on Facebook. *Policy & Internet*, *7*(1), 80-102.

Government of the Republic [Vabariigi Valitsus]. (n.d.). Prime Minister, Ministers. Retrieved May 2021 from https://www.valitsus.ee/en

Government of the Republic. (2021, June 9). Government Communication Unit. Retrieved June 2021 from https://www.valitsus.ee/en/news-contacts/government-communication-unit

Government Office. (2018). *Government communication handbook*. Riigikantselei [State Chancellery]. Retrieved from https://riigikantselei.ee/valitsuse-too-planeerimine-ja-korraldamine/valitsuskommunikatsioon

Health Board. (n.d.-a). About the Health Board. Retrieved June 2021 from https://www.terviseamet.ee/en/about-Health-Board

Health Board. (n.d.-b). About. Facebook. Retrieved June 2021 from https://www.facebook.com/terviseamet/

Health Board. (n.d.-c). Communications Service. Retrieved June 2021 from https://www.terviseamet.ee/en/contact?

Hiltz, S. R., Kushma, J., & Plotnick, L. (2014). Use of social media by U.S. public sector emergency managers: Barriers and wish lists. In S. R. Hiltz, M. S. Pfaff, L. Plotnick, & P. C. Shih (Eds.), *Use of SM by US Government EMs Proceedings of the11th International ISCRAM Conference* (pp. 602-611). Pennsylvania: University Park.

Hofmann, S., Beverungen, D., Räckers, M., & Becker, J. (2013). What makes local governments' online communications successful? Insights from a multi-method analysis of Facebook. *Government Information Quarterly, 30*, 387-396.

Hrdinová, J., & Helbig, N. (2011). Designing social media policy for government. *Issues in Technology Innovation, 4*. Brookings Center for Technology Innovation, 1-9. Retrieved from https://www.brookings.edu/wp-content/uploads/2016/06/01_social_media_policy.pdf

Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons, 53*(1), 59-68.

Kriis. (n.d.). Ministries. Retrieved May 2021 from https://www.kriis.ee/en

Lee, G., & Kwak, Y., H. (2012). An open government maturity model for social media-based public engagement. *Government Information Quarterly, 29*(4), 492-503.

Lovari, A., & Parisi, L. (2015). Listening to digital publics. Investigating citizens' voices and engagement within Italian municipalities' Facebook Pages. *Public Relations Review*, *41*(2), 205-213.

Luty, J. (2020, September 2). Market share of leading social media websites in Estonia 2020. Statista. Retrieved June 2021 from https://www.statista.com/statistics/1165914/market-share-of-the-most-popular-social-media-websites-in-estonia/

Luty, J. (2021, March 15). Most used devices to access Facebook in Estonia 2021. Statista. Retrieved June 2021 from https://www.statista.com/statistics/1156801/estonia-popular-devices-for-accessing-facebook/

Magro, M. J. (2012). A review of social media use in e-Government. *Administrative Sciences, 2*, 148-161. DOI:10.3390/admsci2020148

McNutt, K. (2014). Public engagement in the Web 2.0 era: Social collaborative technologies in a public sector context. *Canadian Public Administration, 57*(1), 49-70.

Meijer, A., & Thaens, M. (2010). Alignment 2.0: Strategic use of new internet technologies in government. *Government Information Quarterly, 27*, 113-121.

Meijer, A., & Thaens, M. (2013). Social media strategies: Understanding the differences between North American police departments. *Government Information Quarterly, 30*(4), 343-350. DOI: 10.1016/j.giq.2013.05.023

Mergel, I. (2012a). The social media innovation challenge in the public sector. *Information Polity, 17*, 281-292. DOI: 10.3233/IP-2012-000281

Mergel, I. (2012b). Working the network a manager's guide for using Twitter in government. *IBM Center for The Business of Government*. Retrieved from http://www.businessofgovernment.org/sites/default/files/A%20Managers%20G uide%20for%20Using%20Twitter%20in%20Government.pdf

Mergel, I. (2013a). Social media adoption and resulting tactics in the U.S. federal government. *Government Information Quarterly, 30*, 123-130.

Mergel, I. (2013b). A framework for interpreting social media interactions in the public sector. *Government Information Quarterly, 30*, 327-334.

Mergel., I. (2013c). Designing a social media strategy to fulfill your agency's mission. *The Public Manager, 42*(1), 26-29.

Mergel, I. (2014). Social media adoption: Toward a representative, responsive or interactive government? In *Proceedings of the 15th Annual International Conference on Digital Government Research* (pp. 163-170). https://doi.org/10.1145/2612733.2612740

Mergel, I, & Bretschneider, S. I. (2013). A three-stage adoption process for social media use in government. *Public Administration Review, 73*(3), 390-400. DOI: 10.1111/puar.12021

Mickoleit, A. (2014). Social media use by governments: A policy primer to discuss trends, identify policy opportunities and guide decision makers. *OECD Working Papers on Public Governance*, 26. https://dx.doi.org/10.1787/5jxrcmghmk0s-en

Ministry of Culture. (n.d.). About. Facebook. Retrieved June 2021 from https://www.facebook.com/Kultuuriministeerium

Ministry of Culture. (2021, April 7). Contacts. Retrieved June 2021 from https://www.kul.ee/en/contacts

Ministry of Defence. (n.d.). Contacts, Strategic Communications Department. Retrieved July 2021 from https://kaitseministeerium.ee/en/contact

Ministry of Economic Affairs and Communications. (2021, April 25). Public Relations Department. Retrieved June 2021 from https://www.mkm.ee/en/news-press-info/public-relations-department

Ministry of Education and Research. (n.d.). Communications Department. Retrieved June 2021 from https://www.hm.ee/en/contact

Ministry of Education and Research [Haridus- ja Teadusministeerium]. (2020a, March 13). Esmaspäevast viiakse kõik haridusasutused üle distantsõppele. Sul on

küsimus? Meie ametnikud vastavad täna alates kella 13.00 siin samas kommentaariumis. Jäta oma küsimus allapoole ning vastame jooksvalt kõikidele küsimustele. [From Monday all educational institutions will be transferred to distance learning. You have a question? Our officials will reply today starting at 13.00 in the same comment section. Drop your question below and we will answer all questions as we go] [Facebook status update]. Retrieved July 2021 from
https://www.facebook.com/haridusministeerium/posts/2893405300697589

Ministry of Education and Research [Haridus- ja Teadusministeerium]. (2020b, March 16). Distance learning began today in schools. You have a question? In front of computers, our officials are ready to answer all kinds of educational questions from basic education to higher and adult education today 13.00-17.00. Leave your question in the comment section below. [Distance learning began today in schools. You have a question? In front of computers, our officials are ready to answer all kinds of educational questions from basic education to higher and adult education today 13.00-17.00. Leave your question in the comment section below] [Facebook status update]. Retrieved July 2021 from https://www.facebook.com/haridusministeerium/posts/2900611839976935

Ministry of the Environment. (n.d.). Contacts, Public Relations Department. Retrieved June 2021 from https://www.envir.ee/en/contact?

Ministry of Finance. (n.d.). Blogist [From the blog]. Retrieved June 2021 from https://blogi.fin.ee/blogist/

Ministry of Finance. (2021, June 3). Contact Information, Public Relations. Retrieved June 2021 from https://www.rahandusministeerium.ee/en/contacts

Ministry of Foreign Affairs. (n.d.). Ministry of Foreign Affairs Contact Info. Retrieved June 2021 from https://vm.ee/en/contact

Ministry of Foreign Affairs. (2016, November 21). Information Request. Retrieved July 2021 from https://vm.ee/en/information-request

Ministry of the Interior. (n.d.). Contacts, Communications Department. Retrieved July 2021 from https://www.siseministeerium.ee/en/contact

Ministry of Justice. (2021, January 28). Contact information. Retrieved June 2021 from https://www.just.ee/en/contact-information

Ministry of Rural Affairs. (n.d.-a). About. Facebook. Retrieved June 2021 from https://www.facebook.com/Maaeluministeerium

Ministry of Rural Affairs. (n.d.-b). Ministry of Rural Affairs of the Republic of Estonia. Contacts: Public Relations Department. Retrieved June 2021 from https://www.agri.ee/en/contact?tid_with_depth%5B2%5D=640

Ministry of Rural Affairs. (2021, June 16). Press contacts. Retrieved June 2021 from https://www.agri.ee/en/press-contacts

Ministry of Social Affairs. (n.d.-a). About. Facebook. Retrieved June 2021 from https://www.facebook.com/Sotsiaalministeerium

Ministry of Social Affairs. (n.d.-b). Contacts. Communication Department. Retrieved June 2021 from https://www.sm.ee/en/contact

Ministry of Social Affairs. (2021, January). Introduction to the Ministry and our structure. Retrieved from https://www.sm.ee/en/introduction-ministry-and-our-structure

Ministry of Social Affairs blog. (n.d.). Blogist [From the blog]. Retrieved June 2021 from https://somblogi.wordpress.com/blogist/

Mossberger, K., Wu, Y., & Crawford, J. (2013). Connecting citizens and local governments? Social media and interactivity in major U.S. cities. *Government Information Quarterly, 30*, 351-358.

NapoleonCat. (2020). Facebook users in Estonia. Retrieved October 2020 from https://napoleoncat.com/stats/facebook-users-in-estonia/2020/09

NapoleonCat. (2021). Facebook users in Estonia. Retrieved June 2021 from https://napoleoncat.com/stats/social-media-users-in-estonia/2021/06

Nõmmik, S. (2018). *Social media marketing in the public sector on the example of the Ministry of Education and Research and the Ministry of Culture of the Republic of Estonia* (Bachelor Thesis, Tallinn University of Technology). Retrieved from https://digikogu.taltech.ee/et/Item/80575550-e9d0-4c52-bc9d-43393b17b99c

O'Reilly, T. (2007). What is Web 2.0: Design patterns and business models for the next generation of software. *Communications and Strategies, 65*(1), 17-37.

O'Reilly, T., & Battelle, J. (2009). Web squared: Web 2.0 five years on. *Web 2.0 Summit.* Retrieved from http://assets.en.oreilly.com/1/event/28/web2009_websquared-whitepaper.pdf

Picazo-Vela, S., Gutiérrez-Martínez, I., & Luna-Reyes, L. F. (2012). Understanding risks, benefits, and strategic alternatives of social media applications in the public sector. *Government Information Quarterly, 29*, 504-511.

Reddick, C., & Norris, D. (2013). Social media adoption at the American grass roots: Web 2.0 or 1.5? *Government Information Quarterly, 30*, 498-507.

Reddick, C. G., Chatfield, A. T., & Ojo, A. (2017). A social media text analytics framework for double-loop learning for citizen-centric public services: A case study of a local government Facebook use. *Government Information Quarterly, 34*, 110-125. http://dx.doi.org/10.1016/j.giq.2016.11.001

Saldaña, J. (2013). *The coding manual for qualitative researchers* (2d ed.). SAGE Publications.

Shan, L. C., Panagiotopoulos, P., Regan, A., De Brun, A., Barnett, J., Wall, P., & McConnon, A. (2015). Interactive communication with the public: Qualitative exploration of the use of social media by food and health organizations. *Journal*

of Nutrition Education and Behavior, 47(1), 104-108. http://dx.doi.org/10.1016/j.jneb.2014.09.004

Snead, J. T. (2013). Social media use in the U.S. executive branch. *Government Information Quarterly, 30*, 56-63.

State Chancellery. (2020, October 1). About Government Office. Support services to the Government of the Republic and the Prime Minister. Retrieved June 2021 from https://www.riigikantselei.ee/en/organisation-news-and-contacts/government-office/about-government-office

State Chancellery. (2021, March 17). Asjakohased kommunikatsioonikanalid ja -formaadid [Relevant communication channels and formats]. Facebook. Retrieved June 2021 from https://riigikantselei.ee/valitsuse-too-planeerimine-ja-korraldamine/valitsuskommunikatsioon/suhtluskanalid

Stenbock House. (n.d.). About. Facebook. Retrieved June 2021 from https://www.facebook.com/stenbockimaja

Tankovska, H. (2021, January 28). Number of social network users worldwide from 2017 to 2025. *Statista*. Retrieved June 2021 from https://www.statista.com/statistics/278414/number-of-worldwide-social-network-users/

van Thiel, S. (2014). *Research methods in public administration and public management: An introduction*. Abingdon, United Kingdom: Routledge.

World Bank. (n.d.). Individuals using the Internet (% of population) - Estonia. Retrieved from June 2021 https://data.worldbank.org/indicator/IT.NET.USER.ZS?end=2019&locations=EE&start=2014

Wukich, C., & Mergel, I. (2015). Closing the citizen-government communication gap: Content, audience, and network analysis of government tweets. *Homeland Security & Emergency Management, 12*(3), 707-735.

Yin, R. K. (2009). Case study research: Design and methods (4th ed.). In *Applied social research methods series, 5*.

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). Los Angeles: SAGE.

Zhang, C. B., & Lin, Y. H. (2015). Exploring interactive communication using social media. *The Service Industries Journal, 35*(11-12), 670-693. DOI: 10.1080/02642069.2015.1064396

Appendix

Appendix 1

The following representatives of the central government institutions of the Republic of Estonia have been interviewed in a framework of this research:

№	Ministry	Respondent (Unit)	Date and a manner of interviewing
1	Government Office	Respondent A – Government Communication Unit	12.07.2021, Written interview
2	Ministry of Culture	Communications Department	17.06.2021, Oral interview
3	Ministry of Economic Affairs and Communications	*A position of a responder is not indicated by a request of an interviewee*	07.07.2021, Written interview
4	Ministry of Education and Research	Communications Department	30.06.2021, Oral interview
5	Ministry of Environment	Public Relations Department	29.06.2021, Written interview
6	Ministry of Finance	Public Relations Department	27.07.2021, Written interview
7	Ministry of Foreign Affairs	Communication Department	27.06.2021, Written interview
8	Ministry of Rural Affairs	*A position of a responder is not indicated by a request of an interviewee*	02.07.2021, Written interview
9	Health Board	*A position of a responder is not indicated by a request of an interviewee*	29.06.2021, Oral interview

Interview guide for representatives of the Ministries of the Estonian Government: Work with citizens' voices on social media

General information

1.   The Department runs government accounts on such social media: [the list of identified pages] Please correct me if something has been overlooked.

2.   Do you also administer personal social media accounts of the (Prime) Minister ([the list of identified pages])? If yes, what platforms exactly? If not, who does that?

The division of responsibilities

3.   Who in the Department is responsible for answering citizens' questions? Does he/she / Do they have other functions in addition to social media administration?

4.   In case if the responsibilities to answer social media queries are dispersed in a team, do all these persons are administrators of social media accounts?

5.   Do you cooperate with other Ministries in order to answer messages/comments from social media (e.g., obtain some information or to take citizens' suggestions into work)?

Internal regulations and intentions behind opening messaging and commenting functions

6.   Do you have any guidelines, regulations in place that define how to work on social media and how to answer citizens' questions specifically? Or did you develop some (oral) policy inside your office? What are the names of these documents? When were they developed? Do you update them?

7.   Are you obliged (by a law or the above-mentioned regulations) to answer citizens' messages and comments on social media? Otherwise, what are the reasons why you strive to react to the citizens' messages on social media?

8.   Why did you decide to enable a messaging function on Facebook (if not prescribed by law)?

Editing process

9.   Are the prepared answers to citizen's messages to be approved by someone before replying? Who does that?

10.   Do you provide training/workshops to upskill personnel who are responsible for social media in your team?

11.   How long does it usually take for you to reply to a citizen's message? To a comment?

12.   Do your answer messages and comments which you receive from citizens on all the above-mentioned social media? If only on some specific platforms, which one?

13.   How many messages do you usually receive on social media (per week/per month) approximately? From which platform do you receive the biggest number of messages?

14.	How do you decide whether to answer a private message or not?

Work with public comments

15.	How do you react to public comments (e.g., answer, like) on social media accounts? How do you decide whether to react to public comments or not?

16.	Do you delete and/or hide some comments? If yes, what comments exactly, based on what criteria?

Further use of users' input

17.	What do social media users usually address you with (questions/ complaints/ suggestions/ gratitude/ other types of content)?

18.	How do you usually react to messages? For example, if a citizen is writing about a problem that does not correspond to your competencies, are you oriented on providing him/her information on who to contact in such case, or are you trying to solve this problem by yourself? Why?

19.	Do you take suggestions sent by citizens (for example, to change a law, to inform the Prime Minister, some Ministry about some situation) in work? How exactly (e.g., pass it further to the Prime Minister, responsible Ministry, implement into the policy)?

Additional comments

Is there anything you would like to share about your office's work on the provision of two-way communication with users on social media?

Appendix 2

A list of social media accounts and blogs of the Estonian Government Ministries and Ministers identified:

Government Office

Government Communication Unit

Facebook:
Estonian – Stenbocki maja @stenbockimaja https://www.facebook.com/stenbockimaja
Russian – Правительство Эстонской Республики @pravitelstvoestonii https://www.facebook.com/pravitelstvoestonii/
Twitter:
Estonian – Valitsuse uudised @StenbockiMaja https://twitter.com/StenbockiMaja
English – Estonian Government @EstonianGovt https://twitter.com/EstonianGovt
YouTube – Valitsuse Uudised https://www.youtube.com/user/ValitsuseUudised

Prime Minister Kaja Kallas

Facebook – Kaja Kallas @kallaskaja https://www.facebook.com/kallaskaja
Twitter – Kaja Kallas @kajakallas https://twitter.com/kajakallas
Instagram – kajakallas https://www.instagram.com/kajakallas/

Ministry of Culture

Facebook – Kultuuriministeerium @Kultuuriministeerium https://www.facebook.com/Kultuuriministeerium
YouTube – Kultuuriministeerium https://www.youtube.com/channel/UC5wUPEun6Mm8AoZhz0lANWw
Instagram – estonian_culture_abroad https://www.instagram.com/estonian_culture_abroad/

Minister of Culture Anneli Ott

Facebook – Anneli Ott @ministerAnneliOtt https://www.facebook.com/ministerAnneliOtt/

Ministry of Defence

Facebook – Kaitseministeerium @kaitseministeerium https://www.facebook.com/kaitseministeerium
Twitter:
Estonian – Kaitseministeerium @kaitsemin https://twitter.com/kaitsemin
English – MoD Estonia @MoD_Estonia https://twitter.com/MoD_Estonia
YouTube – Sõdurileht https://www.youtube.com/user/sodurileht

Instagram – kaitseministeerium https://www.instagram.com/Kaitseministeerium/
LinkedIn – Kaitseministeerium / Ministry of Defence of Estonia https://www.linkedin.com/company/mod-estonia/

Minister of Defence Kalle Laanet

Facebook – Kalle Laanet https://www.facebook.com/kalle.laanet

Ministry of Economic Affairs and Communications

Facebook – Majandus- ja Kommunikatsiooniministeerium @majandusministeerium https://www.facebook.com/majandusministeerium
Twitter – EconMinEstonia @EconMinEstonia https://twitter.com/econminestonia
YouTube – Majandus- ja Kommunikatsiooniministeerium https://www.youtube.com/channel/UCx4ebt7iwbbNkZae4UuFh9g
LinkedIn – Ministry of Economic Affairs and Communications for Estonia https://www.linkedin.com/company/ministry-of-economic-affairs-and-communications-for-estonia/

Minister of Economic Affairs and Infrastructure Taavi Aas

Facebook – Taavi Aas @aastaavi https://www.facebook.com/aastaavi

Minister of Entrepreneurship and Information Technology Andres Sutt

Facebook – Andres Sutt @SuttAndres https://www.facebook.com/SuttAndres
Twitter – Andres Sutt @SuttAndres https://twitter.com/SuttAndres
Personal website – https://andressutt.ee/

Ministry of Education and Research

Facebook – Haridus- ja Teadusministeerium @haridusministeerium https://www.facebook.com/haridusministeerium/
Twitter – Ministry of Education and Research of Estonia @haridusmin https://twitter.com/haridusmin
YouTube – Haridus- ja Teadusministeerium https://www.youtube.com/user/haridusministeerium
LinkedIn – Ministry of Education and Research of Estonia https://www.linkedin.com/company/ministry-of-education-and-research-of-estonia/

Minister of Education and Research Liina Kersna

Facebook – Liina Kersna https://www.facebook.com/liina.kersna

Ministry of the Environment

Facebook – Keskkonnaministeerium @keskkonnaministeerium https://www.facebook.com/keskkonnaministeerium
Twitter – EE Ministry of the Environment @MOEestonia https://twitter.com/MOEestonia

YouTube – Eesti Keskkonnaministeerium https://www.youtube.com/channel/UCfeXgaJw0LCpLx7-X169F6w/feed

Minister of the Environment Tõnis Mölder

Facebook – Tõnis Mölder https://www.facebook.com/tonis.molder

Ministry of Finance

Facebook – Rahandusministeerium @rahandusministeerium https://www.facebook.com/rahandusministeerium/
Twitter – FinMinEstonia @rahandus https://twitter.com/rahandus
YouTube – Rahandusministeerium https://www.youtube.com/channel/UCPi1xa4-zE36R6egBpgg1cA
LinkedIn – Estonian Ministry of Finance / Rahandusministeerium https://www.linkedin.com/company/estonian-ministry-of-finance/?originalSubdomain=ee
Blog Rahandusministeerium [Ministry of Finance] – https://blogi.fin.ee/

Minister of Finance Keit Pentus-Rosimannus

Facebook – Keit Pentus-Rosimannus @pentusrosimannus https://www.facebook.com/pentusrosimannus/
Twitter – Keit @KeitPentus https://twitter.com/keitpentus
Instagram – keit.pentus.r https://www.instagram.com/keit.pentus.r/

Minister of Public Administration Jaak Aab

Facebook – Jaak Aab @aabjaak https://www.facebook.com/aabjaak/

Ministry of Foreign Affairs

Facebook:
    Estonian Ministry of Foreign Affairs / Välisministeerium – https://www.facebook.com/valismin?fref=ts
    Välisministeeriumi veebikonsul [Foreign Consul of the Ministry of Foreign Affairs] – https://www.facebook.com/veebikonsul
Twitter – Estonian MFA @MFAestonia https://twitter.com/MFAestonia
YouTube – estonianmfa https://www.youtube.com/user/estonianmfa
Instagram – mfaestonia https://www.instagram.com/mfaestonia/
LinkedIn – Ministry of Foreign Affairs of Estonia https://www.linkedin.com/company/ministry-of-foreign-affairs-of-estonia/

Minister of Foreign Affairs Eva-Maria Liimets

Facebook – Eva-Maria Liimets @eva.maria.liimets https://www.facebook.com/eva.maria.liimets
Twitter – Eva-Maria Liimets @eliimets https://twitter.com/eliimets

Ministry of the Interior

Facebook – Siseministeerium @siseministeerium https://www.facebook.com/siseministeerium
Twitter – Siseministeerium/MoI @sisemin https://mobile.twitter.com/sisemin
YouTube – Siseministeerium https://www.youtube.com/user/Siseministeerium
LinkedIn – Estonian Ministry of the Interior https://www.linkedin.com/company/estonian-ministry-of-the-interior/
Blogs:

- Rahvastikupoliitika blogi [Population Policy Blog] – https://rahvastikupoliitikablogi.wordpress.com/
- Siseturvalisuse blogi [Homeland Security Blog] – https://siseturvalisus.wordpress.com/

Minister of the Interior Kristian Jaani

Facebook – Kristian Jaani https://www.facebook.com/Kristian-Jaani-102837388513157/
Twitter – Kristian Jaani @KristianJaani https://twitter.com/kristianjaani

Ministry of Justice

Facebook – Justiitsministeerium @Justiitsministeerium https://www.facebook.com/Justiitsministeerium/
Twitter – Justiitsministeerium @JustMin_Estonia https://twitter.com/JustMin_Estonia
YouTube – Justiitsministeerium https://www.youtube.com/user/justiitsministeerium

Minister of Justice Maris Lauri

Facebook – Maris Lauri https://www.facebook.com/maris.lauri.5
Twitter – Maris Lauri @MarisLauri https://twitter.com/MarisLauri
LinkedIn – Maris Lauri https://www.linkedin.com/in/maris-lauri-3525aa30/?originalSubdomain=ee
Blog – https://marislauri.ee/

Ministry of Rural Affairs

Facebook – Maaeluministeerium @Maaeluministeerium https://www.facebook.com/Maaeluministeerium
YouTube – Maaeluministeerium https://www.youtube.com/user/pministeerium
Blog Maablogi [Country blog] – https://maablogi.wordpress.com/

Minister of Rural Affairs Urmas Kruuse

Facebook:
Public account – Maaeluminister Urmas Kruuse @KruuseUrmas https://www.facebook.com/KruuseUrmas/
Personal page – Urmas Kruuse https://www.facebook.com/urmas.kruuse

Ministry of Social Affairs

Facebook – Sotsiaalministeerium @Sotsiaalministeerium https://www.facebook.com/Sotsiaalministeerium
Twitter – Sotsiaalministeerium @SoMinEstonia https://twitter.com/sominestonia
YouTube – Sotsiaalministeerium https://www.youtube.com/channel/UCTewxyvit2OsCky6W2FTzgg
Instagram – sotsiaalministeerium.ee https://www.instagram.com/sotsiaalministeerium.ee/
Blog Sotsiaalministeeriumi ajaveeb [the Ministry of Social Affairs blog] – https://somblogi.wordpress.com/

Minister of Social Protection Signe Riisalo

Facebook – Sotsiaalkaitseminister Signe Riisalo https://www.facebook.com/Sotsiaalkaitseminister-Signe-Riisalo-104136565029954/
Instagram – signeriisalo https://www.instagram.com/signeriisalo/

Minister of Health and Labour Tanel Kiik

Facebook – Tanel Kiik https://www.facebook.com/tanel.kiik
Twitter – Tanel Kiik @TanelKiik https://twitter.com/tanelkiik

Health Board

Facebook – Terviseamet @terviseamet https://www.facebook.com/terviseamet/
YouTube – Terviseamet https://www.youtube.com/channel/UCWsrQmpXjgLFxKvt91s-4_w/
Instagram – terviseamet https://www.instagram.com/terviseamet/

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