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VICTORIA YANTSEVA

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LINNAEUS UNIVERSITY PRESS

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Abstract

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This dissertation aims to analyse media discourse about immigration in Sweden in the last decade. To meet this goal, it uses large-scale textual data collected from various media resources, such as mainstream newspapers, social media (Twitter and Facebook) and an online forum. On the one hand, the dissertation explores how the internal architecture of online media contributes to the formulation of public debate about immigration. On the other hand, this work focuses on an external event represented by the refugee crisis and on the ways in which it intervened with the overall discourse dynamics in the Swedish media. Ultimately, this research aims to understand how these internal and external factors affect the framing and construction of the immigration agenda in Sweden. The methodological framework of the dissertation includes a variety of computational text analysis methods, such as sentiment analysis, topic modelling, word embeddings and machine learning, which helps to gain insight into the content and sentiments of the documents published in the media resources. Text analytic methods are further complemented with social network analysis and the study of communication patterns among social media users.

The main results of the analysis indicate that the refugee crisis played an ambivalent role in the overall dynamics of the immigration discourse. While the analysis results suggest several changes in the interpretative repertoires and sentiment of the media content during the crisis, it is still questionable if they can be characterised as unique or groundbreaking. As for online social media, this work concludes that they have an ambiguous role in the shaping of public debate on immigration. In particular, the discourse on immigration on social media can be characterised as more negative and prone to the influence of such external events as the refugee crisis. At the same time, even minor changes in the platform architecture can indeed influence the ways in which the immigration discourse is formulated on social media. On the other hand, some of the networked properties of social media, such as clustering or homophily, do not necessarily have a negative or polarising effect, contrary to the predictions of network theory.

To my daughter

List of Publications

This dissertation is based on the following publications (I have contributed to all stages of work as the lead author):

1. Victoria Yantseva. Migration discourse in Sweden: Frames and sentiments in mainstream and social media. *Social Media + Society*, 6(4), 2020. 10.1177/2056305120981059.
2. Victoria Yantseva, Elizaveta Kopacheva. Users' polarisation in dynamic discussion networks: The case of refugee crisis in Sweden. *PLOS One*, Forthcoming. 10.1371/journal.pone.0262992.
3. Victoria Yantseva. Discursive construction of migrant otherness on Facebook: A distributional semantics approach. *SocArXiv*, 2021. 10.31235/osf.io/5e4zq
4. © 20XX IEEE. Reprinted, with permission, from Victoria Yantseva, Kostiantyn Kucher. Machine learning for social sciences: Stance classification of user messages on a migrant-critical discussion forum. In *2021 Swedish Workshop on Data Science (SweDS)*, pages 1–8. IEEE, 2021. 10.1109/SweDS53855.2021.9637718.

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Chapter 1

Introduction

In 2015, Europe saw refugees “storming” at the shores of Europe — or at least that is how this natural disaster metaphor was used in the media (see, for example, [1]) that branded the human tragedy as the “European refugee crisis”. In a matter of months, it has been argued, the discourse of welcoming and reception transformed into the discourse of othering and exclusion, which was marked as a turning point or a discursive shift in the European countries [63,67]. These events took place against the background of economic crises and right turn in European politics, as well as growing nationalist and right-wing movements across Europe, such as Alternative for Germany in Germany, former National Front in France and Sweden Democrats in Sweden [72,132].

Sweden, together with Germany and Austria, became one of the primary recipients of people fleeing conflicts and violence in Syria, Iraq and Afghanistan, which supported the image of the Swedish exceptionalism that rested upon the principles of welfare universalism and multiculturalism, as well as relatively generous immigration policy [17,166]. The crisis, however, was unfolding against the background of steadily growing support for the right-wing party of Sweden Democrats, austerity measures and growing critique of the Swedish immigration policy [158,166] and resulted in dramatic changes in the immigration policy in 2016. This crisis, therefore, uncovered and escalated the controversies between a variety of competing representations of the immigration topic that were articulated in the public sphere: strong traditional ideas of anti-racism, respect for human rights values and willingness to help the refugees, on the one hand, and growing uncertainty about the multiculturalist project and implicit everyday discrimination, on the other hand [40]. While some researchers argued that the crisis symbolised the end of Swedish exceptionalism [56,76], others objected to this statement by saying that the end of Swedish exceptionalism was a logical epilogue of Swedish history’s last twenty years [41,166].

Quite obviously, these events found enormous resonance in both traditional mainstream and online user-generated media. Given the constantly growing number of people on our planet that have access to the World Wide Web [2], the role of online social networks and digital means of communication has become as important as never before. The cases of Arab Spring [127], #metoo [121] and Black Lives Matter [134] showed that social media platforms could serve

as powerful tools for civic participation, activism and protest movements and can give voice to those usually excluded from the mainstream public arenas. However, social media were also shown to successfully serve right-wing parties and nationalist movements (see, for example, [53]) that form counter-publics on the social media platforms and whose goal is to undermine democratic and human rights values. On top of this, the studies conducted during the past decade managed to provide new insights into the functioning and logic of online networking sites and uncovered some interesting phenomena, such as echo chambers [37,68,152] or information contagion and cascades [119,175].

Given the observations mentioned above, it seems necessary to reflect upon the role of these internal and external conditions that can shape the development of the public debate on socially relevant and pressing issues. Therefore, this dissertation aims, on the one hand, to comprehend the role of social media and their internal properties and architecture in the development of the Swedish media discourse about immigration. On the other hand, it studies the effect of such a groundbreaking event as the European refugee crisis on the overall discourse dynamics. The dissertation contributes to the existing research by a) tracking the long-term development of the media discourse about migration, rather than during the peak of the crisis; b) comparing the discourses across the mainstream and social media platforms, rather than in just one type of media; c) providing computational analysis of large-scale data, rather than qualitative reading of a small sample of documents.

The theoretical framework for the dissertation is inspired by discourse theory and the writings of Jonathan Potter and Margaret Wetherell, as well as some other discourse theorists. Discourse theory is further supplemented with the media theory of John Thompson, which helps to account for the interactional aspect of discourse production on the online platforms that can be characterised as interactive media. Finally, the writings of network and new media theorists, such as Richard Jenkins and Manuel Castells, have been used to conceive the architecture and technological affordances of the new media and their influence on the discourse in social media.

To achieve the goal of the thesis, the big data studies included in it draw on the longitudinal data collected from different types of Swedish media (2012–2020), in particular, mainstream newspapers, as well as social media platforms: Twitter, Facebook and the Flashback forum (more than 3.5M observations in total). Methodologically, the study utilises a corpus-based approach and a combination of computational methods for text and discourse analysis, such as topic modelling, supervised and unsupervised sentiment analysis and word embeddings. The use of text analytic methods helps to get an overview of the main frames or interpretative repertoires used to formulate the immigration agenda in Sweden and users' emotions and attitudes to the topic. Text analysis is further

supplemented with network analytic methods to account for the interactive aspect in the discourse formulation.

Thus, this dissertation also locates itself within the new and fast-developing field of computational social science (CSS) that uses computational methods and has been praised for its ability to accommodate new types of research questions and methodologies in the studies of social phenomena [193]. This work, therefore, can also be seen as an exercise to overcome the divide between the approaches used in different traditions of sociology, where I tried, in particular, to combine the use of computational methods with discourse theory traditionally seen as an interpretative and qualitative approach.

1.1 Objectives and research questions

Summing up the above-mentioned, my overarching aim with this dissertation is to make an analysis of media discourse about immigration in Sweden in the last decade, focusing, on the one hand, on an external event represented by the refugee crisis and the ways in which it intervened with the overall discourse dynamics, and, on the other hand, on the ways in which internal architecture of social media contributed to the formulation of the discourse about immigration. In other words, to narrow down the goal of the dissertation to just one sentence: *it aims to study the effects of external and internal contextual factors in the shaping of the Swedish media discourse on immigration in the last decade.*

In particular, my research questions are as follows:

- RQ1:** How are immigration discourse and particular categories of immigrants (e.g. “immigrants” versus “refugees”) constructed in social media?
- RQ2:** How did a particular external event (the European refugee crisis) affect the Swedish discourse on immigration?
- RQ3:** How does the networked architecture of online media influence the formulation of immigration discourse on these platforms?

As it follows from the formulated research goal, the focus of this dissertation is on *contextual factors*, since most discourse theories acknowledge in one way or another the importance of context in the process of discourse production. A focus on the refugee crisis as one such contextual factor has been underpinned by the fact that it could be described as one of the major events related to Swedish immigration history and policy in the last decade. Moreover, since it was an object of enormous attention in the research community, my ambition has been to contribute to the discussion of media representations of the crisis and its effect on the discourse. This was especially relevant given that most of the relevant research in Sweden focused primarily on mass-media representations of these

events and the immigration issue in general, whereas studies of social media discourses were underrepresented. Moreover, the focus on social media has been chosen because of the possibility to relate to the vast literature on social media and their technological affordances. However, it seemed that the existing research had not given much attention to the question of discourse production on online platforms. Therefore, I used this as an opportunity to contribute to the investigation of this topic.

As it follows from the above-mentioned, a secondary goal of this dissertation is also related to the methodological component of the work: my ambition is to explore the possibilities for the use of computational methods in social studies in general and sociology in particular, as well as to bring together the power of computational social science with the power of analytical and theoretical frameworks traditionally used in sociology.

1.2 Outline of the dissertation

Article 1 (published in *Social Media + Society*): “Migration discourse in Sweden: Frames and sentiments in mainstream and social media” [201]

Abstract: This study makes a systematic analysis of media discourse on migration in Sweden in 2012–2019. Using a novel dataset consisting of mainstream newspapers, Twitter and forum data, the article answers two questions: what do Swedish media actually talk about when they talk about “migration”? And how do they talk about it? Using a combination of computational text analysis tools, I analyse a shift in the media discourse as one of the outcomes of the so-called European refugee crisis in 2015 and try to comprehend the role of social media in this process. The results of the study indicate that messages in social media, generally, had negative tonality and suggest that some of the media frames can be attributed to a migration-hostile discourse. At the same time, the analysis of framing and sentiment dynamics provides little evidence for the discursive shift and long-term effects of the European refugee crisis on the Swedish media discourse. Rather, one can hypothesise that the role of the crisis should be viewed in a broader political and historical context.

This article aims to give an overview of discourse dynamics in social versus mainstream media during the refugee crisis and, thus, to discuss the effect of this external event on discourse development (RQ2). Since, in this work, discourse is operationalised as consisting of substantial (frames or interpretative repertoires in discourse theory’s terms) and subjective (sentiments, emotions) components, this paper thus presents an analysis of the discourse dynamics in a sense that it studies the changes in the repertoires and sentiment of the news content.

Article 2, written together with Elizaveta Kopacheva, Department of Political Science, LNU (accepted for publication in PLOS ONE): “Users’ polarisation in dynamic discussion networks: the case of refugee crisis in Sweden” [203]

Abstract: This paper presents a study on the dynamics of sentiment polarisation in the active online discussion communities formed around a controversial topic — immigration. Using a collection of tweets in the Swedish language from 2012 to 2019, we track the development of the communities and their sentiment polarisation trajectories over time and in the context of an exogenous shock represented by the European refugee crisis in 2015. To achieve the goal of the study, we apply methods of network and sentiment analysis to map users’ interactions in the network communities and quantify users’ sentiment polarities. The results of the analysis give little evidence for users’ polarisation in the network and its communities, as well as suggest that the crisis had a limited effect on the polarisation dynamics on this social media platform. Yet, we notice a shift towards more negative tonality of users’ sentiments after the crisis and discuss possible explanations for the above-mentioned observations.

Concerning the goal of this dissertation, this article’s aim is two-fold. On the one hand, it studies the emotions and sentiments of Twitter users expressed in their posts, which can be described as a subjective component of the discourse (*how* immigration is talked about). Therefore, this article studies these discursive changes in light of an external event represented by the refugee crisis (RQ2). On the other hand, it also concentrates on the internal factors that affect discourse production. In particular, it studies how the networked architecture of new media, with their tendency to homophily and clustering, affects discourse development and the distribution of users’ sentiments (RQ3).

Article 3, submitted to *Discourse, Context and Media*: “Discursive construction of migrant otherness on Facebook: A distributional semantics approach” [202]

Abstract: This work aims to study the social construction of migrant categories and immigration discourse on Swedish-speaking Facebook pages in the last decade. It combines the insights from computational linguistics and the distributional semantics approach with those from classical sociological theories to explore a corpus of more than 1M Facebook posts. This allows one to compare the meanings of labels denoting various categories of migrants and identify the interpretative repertoires used by Facebook users to discuss the immigration topic. The study concludes that, despite the expressions of tolerance and support for refugees and immigrants, the Facebook audience is nevertheless active in the objectification and discursive discrimination of those identified as belonging to either of those discursive categories. The study results are then related to the technological design of new media and the

overall social and political climate surrounding the Swedish immigration agenda.

The goal of this paper is to take a closer and deeper look at the immigration discourse on social media (Facebook in particular), as well as to explicitly explain some postulates of discourse theory and demonstrate this theory's relevance for corpus-driven studies. Given discourse theory's focus on how social categories come into being through the discourse, I compare how different categories of migrants (refugees and immigrants) are constructed in the Facebook discourse and provide an overview of the existing interpretations concerning the immigration topic articulated in the Facebook posts (RQ1).

Article 4, written together with Kostiantyn Kucher, Department of Computer Science and Media Technology, LNU, published in the Proceedings of the 9th Swedish Workshop on Data Science (SweDS21): "Machine learning for social sciences: Stance classification of user messages on a migrant-critical discussion forum" [204]

Abstract: In this paper, we present our methodology for supervised stance classification of sparse and imbalanced social media data. We test our framework on a manually labeled dataset of 5700 messages about immigration in the Swedish language posted on the Flashback forum, a migrant-critical online discussion platform. Since effective classification of imbalanced and sparse textual data in under-resourced languages presents certain methodological challenges, our study contributes to a discussion on the best pathways to achieve highest model performance given the character of the data and unavailability of large training datasets for this task. Our proposed approach currently achieves an F1-score of 0.72 for test data on a two-class problem compared against 0.27 for a baseline four-class model.

This paper pursues a purely methodological goal and thus aims to demonstrate the possibilities for using computational methods and machine learning in sociology and by sociologists. Since this paper is concerned with developing an approach to classify document stances with regard to the immigration topic, it is also related to the task of identifying the subjective component of the discourse. The resulting model developed in the paper can further be used by social scientists in Sweden working with topics similar to the one presented in this dissertation.

Chapter 2

Related work

2.1 Setting the scene: Immigration and multiculturalism in the Swedish public debate

In this section, I would like to briefly describe the background for the development of the Swedish immigration discourse in the 2010s, particularly regarding the Swedish public debate on the reception and integration of immigrants. Judging from the extensive research on the immigration policy and corresponding public debate in Sweden, it is possible to distinguish several factors that have been discussed in the scientific literature and that seem to be relevant to contextualise the topic. In particular, these are the previous experience of labour and refugee immigration in the country; the political climate in the country and the competition between the political parties; the traditionally strong welfare state and its relations with the immigrant population; something that could be labelled as the ideology behind the so-called Swedish exceptionalism and that would include the idea of people's equality, respect for human rights and principles of humanitarianism.

Sweden has long been seen as one of the pioneers and champions in the promotion of the multiculturalist policy [18, p. 138]. In the Swedish context, the idea of migrants rights to equal social and economic conditions can be traced back to as early as the middle of the 1960s [18, p. 141]. Given that the principles of social democracy have found strong support in society, this should have been achieved with the help of strong welfare state support and by levelling out the differences between the social groups in the society. Although multiculturalism and integration policies underwent multiple changes, a certain degree of equalisation and universalism have been quite typical for the Swedish policy at least until the 1990s [3, p. 2]. Nevertheless, the Swedish multicultural policy has been criticised for the presumption that migrants were "a group requiring special treatment to enable them to adapt to Swedish society" [48]. The subsequent abandonment of the multiculturalist policy came as a result of re-focusing from group to individual rights and highlighting the individuals' obligations and responsibility to adapt to the host country [16].

In contrast to many other European countries, immigration and multiculturalism were not seen as salient political issues in the Swedish context for a long time, which is reflected in the fact that the first prominent right-wing party got representation in the Swedish parliament only in 2010. Immigration, largely, was a topic of low relevance for the majority of political parties throughout the 1970s – 1990s [42]. On the contrary, migrants' integration was essentially a "welfare state concern" [70] rather than a subject of political debate. The politicisation of the immigration issue has been a relatively recent phenomenon [111], which, of course, could have its role in the shaping of public discourse on immigration. A certain turning point in this process occurred in 1994, during the Balcan wars that generated an influx of refugees to Sweden, and an election where a certain political consensus about immigration policies was broken by New Democracy, a right-wing party that was heavily agitating for stricter integration policies [70].

This resulted in changes in the state integration policies that focused on migrants' responsibility to integrate. Another consequence was an extensive media coverage of the issue and a debate that was described as follows: "The relatively open climate that had emerged, which allowed commentators to speak out in a covertly racist language, can again be attributed to the influence that New Democracy and its populist rhetoric had in the early 1990s (Rydgren)." [70]. What comes to the front from this description is a striking similarity between the immigration debate in the 1990s and the one that can be identified today. Another similarity between the public debate in the 1990s and today relates to the existing evidence on the circulation of somewhat contradictory images of refugees as a threat on the one hand and as victims on the other. However, the researchers point out that these representations of refugees have been at work already during the arrival of Yugoslav refugees at the beginning of the 1990s [48].

The 1990s and 2000s were also the periods of the consolidation and rise of the Sweden Democrats (SD), who, since their debut in the parliament in 2010, have constantly been acquiring growing voters' support. SD's rhetoric, in general, could be seen quite typical for that of right-wing parties in their appeals to the Golden age of ethnic homogeneity in Sweden that was destroyed with the beginning of non-European immigration [55]. The developments in Sweden in the 2000s, moreover, could be seen as a part of a general Western trend to picture a "civilisational threat" from Islam, which was connected to the events of the 11th of September 2001. These developments also represented a certain change in the rhetoric of many right-wing parties, including Sweden Democrats, since they shifted their focus from the drawbacks of ethnic heterogeneity and the presence of non-Western populations to the threat of the Muslim population specifically [55]. It seems that many researchers share an understanding that a common strategy for dealing with Sweden Democrats among the media institutions and political parties was that of so-called *cordon sanitaire* when the party was simply deprived of both media attention and collaboration with the mainstream parties [140].

The relation between the welfare state and those identified as Others also needs to be taken into account to describe the background for the development of public perception of the immigration issue in the last decade. Among the most crucial factors with this respect has been the re-orientation of the Swedish welfare model from the principles of universal redistribution and social solidarity towards neoliberal labour market policy and the focus on individuals' obligations and responsibility as the result of the economic crisis in the 1990s [41]. According to the researchers, the introduction of the "New Swedish model" [41] has had a tremendous effect on what has been described in terms of institutional and structural discrimination that has paved the path to the marginalisation of immigrants [27]. The marginalisation, in particular, could be expressed by the formation of ethnically and socially segregated neighbourhoods, racialisation or ethnification of the labour market [41, 166], as well as only dramatic differences in the employment rates of immigrant versus native population [41], with the immigrant population being partly excluded from the welfare system.

Given the above-mentioned suggestion about the marginalisation of immigrants in the Swedish context, there is no coincidence that the debate on immigration has been formulated as an issue of "immigration-welfare nexus" [69]. Since Sweden has traditionally had a strong and generous welfare state (even in times of austerity and crises), the debate on immigrants' rights has often been presented as an issue of their eligibility for welfare state support and the effects that immigration had on government spending and resource redistribution. The results of opinion polls indicate, for example, that welfare state support is negatively correlated with the perceptions about the degree of ethnic heterogeneity in the country [51]. Moreover, the research has described the process of clientisation of immigrants, and especially refugees, in relation to the welfare state institutions. These groups were perceived by the authorities as being especially vulnerable and in need of assistance, which has been argued to serve as a ground for social exclusion [48]. The institutions' work with immigrants, then, has been largely based on different policy-based categorisations of the foreign population, first and foremost refugees and immigrants. Eastmond gives a good account of these practices: "Through the formulation and standardisation of clear-cut categories, such labels define a client group and an assumed set of needs and require considerable conformity. ... However, 'immigrant' and 'refugee' are not only categories derived from policy; they are also embedded in and draw their meanings from the broader cultural and ideological frameworks of service-providers as members of wider society" [48].

The prevailing ideology of people's home (*folkhem*) that was first formulated as early as in the 1890s also seems important to contextualise the development of the public debate on immigration in Sweden. Generally, *folkhem* had the ideas of egalitarianism, solidarity and universalism as its building blocks [17]. Colour-blindness and the principles of anti-racism, quite naturally, could also be

described as part of this official ideology that pronounced Sweden as a post-racial society where race and ethnicity were perceived as unnecessary artefacts of the past [125]. However, the other side of the coin is that such a strategy still allowed maintaining the overt forms of discrimination and racism while denying their existence and reinforcing the perception of natives' superiority over the non-white population [118]. The prevailing ideology, moreover, has been criticised by some researchers as an elitist enterprise that was imposed from above and was used even in times of more restrictive immigration and integration policies: "an increasingly centralised, restrictive and controlling attitude toward immigration was masked by benevolent and tolerant official ideology" [157].

Thus, social scientists have also dedicated effort to exploring such covert forms of racism and inequality that did not fit the picture dominating ideology. The existing research has contrasted this normative account for Sweden's integration policies against the actual lived experiences and everyday discrimination of those identified as Others [3, p. 4]. From the normative point of view, the state and society assured everyone's equal worth (*allas lika värde*) and anti-racism as one of the guiding principles for the functioning of the society. However, critical scholarship has put forward an argument about the contradictory principle of *hegemonic whiteness* lying at the core of Swedishness [92]: "...the idea of being white without doubt constitutes the central core and the master signifier of Swedishness and thus of being Swedish, meaning that a Swede is a white person, and a non-white person is not a Swede" [91]. Even more so, the presence of the non-white population has been perceived as threatening these principles of equality and anti-racism [91]. A similar argument has been put forward by Dahlstedt and Neergaard, who stressed that Swedish multiculturalism "...was inclusionary and subordinating at the same time" [41].

Indeed, some of the Swedish scholars have described this strong contrast between the semantic (dictionary) meaning of the word immigrant (someone who migrated from one country to another) and the meaning of the word immigrant articulated in the public discourse, that, instead of focusing on the change in the country of residence, involves an entirely different set of characteristics, and primarily the degree of unswedishness or otherness irrespective of the individuals' actual experience of changing the country of residence [136, p. 50]. In that manner, the immigrant is not necessarily the one who moved to Sweden from abroad, but rather the one who does not conform to the norm of what constitutes being Swedish.

Finally, I would like to relate this discussion on the overall climate surrounding the immigration agenda to events of the refugee crisis. As it will be shown below, much of the current research has pointed the critique to the media that perceived the refugee crisis of 2015 as a problem and connected the arrival of refugees with the threat to society. However, it seems that this narrative of immigration as a threat has been in place as early as in the 1980s [3, p. 12], while some

researchers also point out that framing of the immigration issue as an economic threat to the Swedish labour market could be traced back to as early as the 1960s – 1970s [163, p. 106].

Therefore, it seems that the immigration issue has always been far from unproblematic even before the refugee crisis despite the prevailing image of Sweden as an example of an egalitarian and multicultural society [166]. Yet, as it will be shown in the next section, both media and researchers have adopted the view that the events of 2015 represented in some way a unique event and a crisis. This crisis dramatically transformed not only media representations and public discourse about immigrants but also the above-mentioned ideological basis of the immigration policies, which was presented as somewhat an outstanding event in Swedish immigration history. However, it seems that restrictive policies and covert forms of discrimination can barely be classified as a recent development and a product of the refugee crisis.

2.2 Representation of the refugee crisis in modern media

Across Europe, mainstream media reporting on and representation of the refugee crisis was extensively covered by social scientists who claimed that a humanitarian frame of support and solidarity with the refugees was most salient during the earlier stage of the crisis [89]. This was followed by a discursive shift that was characterised by securitisation and growing hostility towards asylum seekers [35, 63, 67, 108]. Despite some regional differences across the EU countries, a commonality between the discourses in the later stages of the crisis was that migrants and refugees had often been presented as a threat, be it security, economic or cultural one [33, 49]. In some cases, refugeehood was directly connected with a terrorist threat [65]. In the European news content, little attention was generally given to highlighting migrant voices and experiences [36]. Some scientists, however, challenged the dominant crisis- and turning point- thinking by saying that fragmented media representations of the tragedy represented a crisis in itself [131], or that European policies or internal sociopolitical factors, rather than actual people arriving in Europe, were to be blamed for the reception failure [75, 124].

The studies on the representation of migrants in the Swedish mainstream media provided mixed findings. Some researchers claimed that Swedish mainstream newspapers had the most positive framing of migration in comparison with other Nordic and European countries [11, 89] and were making emphasis on the humanitarian aspect of migration more often than their Scandinavian colleagues [81, 88]. However, the existing research suggested that migration was increasingly presented as a policy and political issue in the newspapers [88].

Growing media salience of the migration topic, it was stressed, was preceded by its politicisation [111] by the newly elected social-democratic government who needed to justify the policy changes [30]. Some researchers suggested that the crisis represented a groundbreaking event, at least for the public policy and public discourse in the broader sense [56,76]. Others opposed this thesis by stating that the “U-turn” needed to be explained by more complex social, political and economic conditions [162].

It is no coincidence that researchers focused their attention on the particular discourses and representations of migrants in the European media since they were found to influence public opinion on this topic [15,187] and, even more, were associated with refugee cases’ acceptance rates in the EU countries [109]. The effects of particular media framing of socially relevant issues, so-called media effects, were addressed in a large number of studies, for instance, in [95,190], and were shown to be persistent even in high-choice media environments [45].

Yet, few empirical studies aimed to answer what or who drives particular agenda building and framing of the relevant issues in the media. Existing evidence suggests, for example, that particular media framing of the migration issue is dictated by the governments [107] or other key players, as well as the overall political context surrounding the topic [82], which challenges the perception of media as the main drivers of the migration debate [29]. These findings can be supported by the results of surveys on the public attitudes towards migrants in the OECD countries. In particular, the evidence suggests that public opinion on immigration underwent only minor changes between 2002 and 2016 in the majority of European countries and suffered only short-term fluctuations during the crisis [79].

As for the role of online social media during the European refugee crisis, it was argued that they had been one of the driving forces in the consolidation of affective publics and public activism aiming at helping refugees in the summer and autumn of 2015 [40]. Twitter was also described as a platform that allowed more nuanced and diversified narratives of migration [137], where empathy and solidarity with refugees were especially strongly articulated [8,171]. Social media publics were found to be effective in demanding the government to act and account for its actions during the crisis [141] and in challenging hegemonic anti-refugee discourses in some of the EU countries [43]. In Sweden, social media platforms were used by local NGOs to provide emergency relief to the newly arrived and to influence the discourse about the crisis [102].

2.3 Architecture of new media and their role in the shaping of the Swedish immigration agenda

As demonstrated by the case of the refugee crisis, participatory media provide a wide range of opportunities to achieve public good. In particular, social networking sites serve as platforms for the formation of affective publics [143] and the consolidation of social movements [34, 134, 154]. They can also perform as valuable means for democratic deliberations [77], information exchange and coordination of protest activities [23, 100, 181], as well as channels for agenda-building and influencing the mainstream media and political discourses [123, 130, 200]. They were also shown to enable offline forms of civic participation and political engagement [38, 170, 184, 198], as well as to give birth to online forms of activism, so-called cyberactivism [199].

However, social scientists devoted also much of their work to the critique of social media. During the refugee crisis, crime and threat narratives represented typical ways of talking about these events [151] that were more frequently approached with negative stances [93, 115]. The hybrid character of the online media environment was reported to provide a breeding ground for users' opinion polarisation on the migration topic [151] and the formation of polarised groups that left no place for democratic deliberations [78] and, even more, was used for offline anti-refugee mobilisation [164]. Social media, it was argued, reproduced offline power hierarchies since dominant actors in social media who formulated the discourse about migration were represented by already influential users, such as news agencies, reporters and NGOs [59, 172]. The same statement is relevant in relation to political actors, for example, extreme-left and extreme-right parties on Facebook that talked about the crisis more frequently and in more extreme ways [80]. In Sweden, not only radically oriented parties but also the mainstream ones (i.e. the ruling party of the Social Democrats) used social media to politicise the issue during the crisis and to legitimise the introduced policy changes [111].

Social media critique extends far beyond the case of the refugee crisis. It was argued that migration discourse on social media should be seen in contexts of anti-systemness [86] and incivility [113]. Users in anti-immigrant communities, the studies conclude, employ particular strategies to create echo chambers and distinct group identities [159] in the social media that provide new discursive opportunities for the radical narratives to take shape and gain legitimacy, as well as to enable violent activism [192] and offline political participation [120].

In Sweden, a few studies have succeeded in mapping the use of social media and the World Wide Web by right-wing users and movements. For instance, it was shown that social media, such as YouTube and Facebook, are used in Sweden for anti-immigrant mobilisation [52, 192]. The presence of racist and anti-immigrant discourses was also documented on Facebook [54, 128, 183] and Flashback [13, 182], an online forum that cannot be described entirely as an alternative news source

since it is used by a large part of the Swedish population. The Internet also enabled the emergence of migrant-hostile alternative media [86, 113, 138], such as *Fria Tider* and *Avpixlat*, whose narratives would otherwise be excluded from the mainstream discourse about migration. In comparison with other European countries, Swedish alternative media were named as the most prevalent among the users [168], as well as causing readers' engagement comparable to that of the mainstream media [161]. Such a right-wing media readership is especially problematic since it has been found to have more significant effects on people's immigration attitudes in contrast with mainstream media use [178]. These controversial results, thus, leave room for the discussion on the contribution of social media to the general public discourse about immigration.

Despite such an expansion of migrant-critical narratives in social media, scientists have not adequately addressed this question. The existing studies have shown that social media can serve as the means for the articulation of opinions that are marginalised in the mainstream media [117]. Some studies succeeded in highlighting a so-called process of information laundering, when counter-discourses of radical communities merge with the mainstream ones and thus become normalised [150], or suggested that social media messages can be adopted by journalists [28]. In Sweden, however, existing studies provide evidence for a certain boundary between the mainstream discourse and the discourse formulated in alternative media [167] that was seen by professional journalists as located outside of the boundaries of legitimate dialogue [139]. Other studies provide evidence that social media framing power is still constrained to influence the mainstream discourse effectively *citemoscato, zhou*. Despite the above-mentioned, it is still unclear whether and to what extent social media narratives can effectively spill over and influence mainstream discourses.

Concerning the role of social media in the formulation of public opinion and immigration discourse, two important phenomena, namely cross-ideological exposure and opinion polarisation, have been found to influence the formulation of discourses in online networks and the radicalisation of users. The growth of opinion polarisation in online discussions has been documented by previous research [87, 149]. In particular, users' social media activity has been associated with more radicalised and polarised attitudes towards the discussion topics [66, 116], which could be explained by the fact that social media more frequently expose users to the opinions that already correspond with their own [84]. Other studies contradict this idea by giving evidence for users' cross-ideological exposure to media content [4, 7] that is more common for the users who have moderate rather than radical views [25, 74]. Others suggest that cross-ideological exposure leads to an even greater opinion polarisation [5].

Several studies provide empirical evidence for the existence of echo chambers in social media networks [37, 68, 152] that contribute to opinion polarisation. However, many of them address this phenomenon in relation to users' political

orientations and in connection with political partisanship (see, for instance, [21, 24]). Some of these aim to outline possible conditions that trigger the emergence of echo chambers, such as higher users' involvement and their more negative emotional state [188]. Others argue that active social media users are more likely to be exposed to alternative opinions [126], or state that the prevalence of this phenomenon on the Internet is overestimated [47]. Yet, existing studies also point at more complex and nuanced patterns of discussions in online communities rather than simply echo chamber-like versus cross-ideological ones [14]. In particular, echo chambers are found to exist simultaneously with "open forums" [197] and "enclaves of exposure" [155]. Another interesting point is that online communities are actually full of contradicting views, however, their echo chamber effect is activated when these contradicting views are undermined or marginalised by the majority users [26].

Summing up this section, the existing evidence does not allow arriving at straightforward conclusions about the role of external (the refugee crisis) and internal (the architecture of social media) factors on the development of the Swedish migration debate, despite the abundance of existing studies. The empirical evidence suggests that particular case-to-case conditions, rather than uniform rules, seem to influence the emergence of echo chambers and the processes of audience polarisation in the digital space. This work, thus, contributes to the debate about the social media-driven conditions of the migration discourse dynamics. On a separate note, there seems to be a certain inconsistency in the researchers' assessment of the outcomes of the refugee crisis and the dynamics of public debate on migration after 2015. It is worth suggesting that the idea of the refugee crisis as a crisis and a disruptive event and media as the main drivers of the discourse on the refugee crisis in 2015 needs to be redefined and reflected critically upon.

Chapter 3

Theoretical framework

My theoretical approach to the topic of the dissertation can be described as consisting of three building blocks: media theory that helps to formulate in sociological terms what media and interactions on them are; discourse theory that allows understanding how these symbolic forms produced by media constitute our social reality; and, finally, new media/network theory that provides a glance on the functioning of the new media and the ways in which communication on them represents a new distinct type of mediated interaction.

3.1 Mediated interaction in the digital age

To dig into what constitutes media and communication and how these can be conceived in sociological terms, I have primarily used the approach of John Thompson, which he labelled as the “interactional theory of the media” [180]. Interesting to point out that Thompson’s approach is in many ways complementary to that of the discourse theorists. In particular, Norman Fairclough, one of the most prominent discourse theorists, makes explicit references to Thompson’s theory in his “Media discourse” [57, p. 40] by suggesting that media discourse can be understood as mediated quasi-interaction, which is one of the central concepts formulated by Thompson as part of his interactional theory. In this way, discourse can be understood as a product of mediated quasi- and online interactions between content producers and consumers.

If we were to decompose the communication process both in classical media and on the Internet, then, following Thomspson, it would be possible to argue that they represent a type of mediated interaction that includes both material and symbolic components. Thompson identifies communication as a particular social activity that involves, on the one hand, various kinds of actions upon the symbolic forms (such as production or reception), and, on the other hand, the use of different kinds of material resources [179, p. 18]. The technical or material side of communication is, of course, represented by media, “...material elements with which, and by means of which, information or symbolic content is fixed and transmitted from producer to receiver” [179, p. 18]. The symbolic component, then, is represented by the actual content carried by the material forms, such as the content of a newspaper article or a TV programme.

Although the nature of classical mass- versus online- communication differs significantly, there are nevertheless a few traits that can equally be applied to both of these communication types and that contrast mediated communication against face-to-face communication — these are fixation, reproduction and space-time distantiating [179, p. 20]. In particular, both types of communication enable the preservation, storage and production of multiple copies of the same symbolic content, from which also follows the detachment of the produced content from the actual situation of its production and the ability to re-use it at a different time and in a different space.

Thompson refers to mass-communication as “...the institutionalised production and generalised diffusion of symbolic goods via the fixation and transmission of information or symbolic content” [179, p. 26], which makes it possible to marry mass-mediated communication of the pre-Internet era with that of the 21st century. Thus, Thompson highlights five important traits of mass-mediated communication: “...the technical and institutional means of production and diffusion; the commodification of symbolic forms; the structured break between production and reception; the extended availability of media products in time and space; and the public circulation of mediated symbolic forms” [179, p. 26]. Indeed, mass-mediated communication presumes the existence of organisations and companies, be it newspapers or online social media, that sustain such communication on a commercial basis. The production and reception of symbolic forms represent two distinct activities — a journalist publishing a piece of news or a blogger making a post on Facebook are always located at a distance from their recipients. Yet, the latter can nevertheless consume the produced content even years after their production situation. Finally, the consumers of these symbolic forms always represent an undefined and infinitely large group of people.

Regarding the process of the recipient’s reception and appropriation of symbolic forms on the individual level, Thompson highlights the recipients’ role in their interpretation. Thus, reception can be viewed as a subjective and context-dependent process: “...the ‘meaning’ or sense of a message should be regarded as complex, shifting phenomenon which is continuously renewed, and to some extent transformed, by the very process of reception, interpretation and re-interpretation” [179, p. 41–42]. What follows as a result of individuals’ interpretation of symbolic forms is their appropriation: “To appropriate a message is to take hold of its meaningful content and make it one’s own” [179, p. 42]. If we relate the idea of appropriation to the role of media discourse in the shaping of one’s social reality, then appropriation could be seen as a mechanism that shapes our understanding of the world and links it with the idea of the discourse’s role in the construction of social reality (please refer to the next section).

Yet, the onset of the World Wide Web era has further complicated the process of reception in online interactions since senders and recipients of the messages are essentially the same subjects. Thus, in the process of message reception,

recipients need to take into account their experience as senders [32, p. 132]. Another complication is that senders and receivers constantly interact with each other, which influences the processes of reception and appropriation of the messages: "...we have shifted from mass-communication addressed to an active audience carving out its meaning by contrasting its experience with the one-directional flows of information it receives" [32, p. 132]. This is essentially an "interactive production of meaning" in Manuel Castells' terms [32, p. 132].

The interactional component of Thompson's theory is also reflected in the fact that he distinguished between several types of interactions. While some types of interactions are concerned with the symbolic exchange on the individual level, mediated quasi-interaction is the type of exchange typical of the mass-mediated era. In contrast to dialogical types of interactions, the audience, in this case, is limited in its ability to influence the production of symbolic forms and that the flow of these forms has a primarily one-sided direction — indeed, Thompson mentions that mediated quasi-interaction is monological in nature [180]. Another trait is that it is produced for an infinitely large and undefined audience [179, p. 85]. The producers and consumers of symbolic content, thus, are almost always represented by diverging sets of participants disconnected in space and time.

These traits of online interactions give rise to the new forms of social action-oriented towards distant others [179, p. 100], both from the producers' and recipients' sides. One especially interesting case of such action is what Thompson refers to as "discursive elaboration" that stems from the fact that recipients in the mediated quasi-interaction are deprived of the possibility to respond directly to the producers of the symbolic content. In this case, the messages are "...elaborated, refined, criticised, praised and commented on by recipients who take the messages received as the subject matter of discussion with one another and with the others" [179, p. 110].

This argument seems to apply not only to the pre-Internet era as Thompson initially intended but also to the digital age. It can explain how online discourse is created on online platforms, even though in online interactions, producers and receivers of the news content often have an opportunity for face-to-face mediated interaction. On top of this, just as in the pre-Internet era, social media users can discuss and negotiate the symbolic content produced by traditional media that still lack explicit feedback channels. Indeed, we have seen that social media users frequently refer to and discuss the content produced by traditional media, which creates a network of various types of symbolic content. This is what Thompson calls "extended mediatisation", or a process where media messages get plugged into and referred by newly produced messages [179, p. 110]. A typical example of such a case is users' tweeting of some news from the mainstream newspapers while subsequently including some personal reflections on the initial message. While readers also have an opportunity to engage in a conversation and comment on both the re-used message and that produced by the twitterer, this is how

discursive elaboration comes into play. The reverse situation, however, is also true: traditional media have also been found to adapt the symbolic forms from social media and use them as a news source [144, 189].

The above-mentioned changes in the types of social action and changing character of mediated interactions have, quite obviously, led to the need to reconsider the relevance of Thompson's classification. With the onset of the digital era, Thompson has put some effort to revise some of the prepositions of his theory. To account for the changes in communication patterns and practices, he introduces "mediated online interaction" that preserves the central characteristics of its predecessor. What makes it stand out as a form in itself are its dialogical character and many-to-many format — the properties that, as we will see below, have been extensively covered by network scientists in their theories of spreadable media, convergence culture or mass self-communication. Thompson also puts to use this network perspective:

"Facebook and other SNSs facilitate a distinctive form of social interaction online, creating a constantly expanding network of social relationships characterised by varying degrees of familiarity and tenuousness and by the exchange of symbolic content in multiple formats and modalities – messages, comments, photos, videos, news feeds, etc. – that is made available to others with varying degrees of openness and restrictiveness" [180].

Discourse theorists, it seems, also share this understanding of discourse as the result of interactions. In particular, Norman Fairclough, in one of his more recent works, argues for the conversationalisation of discursive practices [58, p. 136] with the onset of the Web 2.0 era. What is also relevant in Thompson's account of mediated online interactions is the changing power balance with regard to the agenda-setting function of the media. In particular, the power of traditional media gets sufficiently undermined with the onset of the digital era since the power of institutional gatekeepers to frame the news and shape the public agenda in particular ways gets disrupted as a result of diminishing barriers for the production of symbolic content and thus growing possibilities to bypass these institutional gatekeepers [180]. This understanding of the developments of the WWW-era is in many ways consonant with the observations of the new media theorists, which will be developed further in one of the following sections.

3.2 Discourse theory

The theoretical framework for this dissertation builds on the notion of discourse used throughout the text, although it needs to be mentioned that I did not have the ambition to follow any of the Discourse Analytic research programmes strictly. Partly because I did not want the reader to see this text as advocating for a particular approach and partly because I find some extremely relevant

points and limitations in different discourse analytic traditions, especially when it comes to distant reading of corpora and the analysis of discourse at large scale. In relation to the discourse approach chosen for this work, some of such evident discrepancies include an in-depth micro-approach of discourse theory; its closeness with conversational analysis rather than corpus-based computational methods; focus on contextuality of people's interpretations on the individual rather than social level; and focus on the ways in which discourse provides action orientation.

Nevertheless, I find the writings of Jonathan Potter and Margaret Wetherell to be particularly useful for my analysis. Their understanding of discourse builds on the observation that people "are using their language to *construct* versions of the world" [148, p. 33], and that language use is extremely context-dependent — the same person can construct different interpretations of the same object or event depending on different contextual factors. Concerning the topic of this study, for example, this could mean that the same Internet user can describe another person as an illegal migrant or as a refugee who needs protection, depending on the context and circumstances. It also seems relevant to suggest that these contextual factors can be expressed, among other things, by a particular platform or setting used for communication.

Given this observation about the context-dependent constructions of objects in the discourse, a central concept used in Potter's and Wetherell's writings is that of *interpretative repertoire* [148, p. 138], which I find highly relevant for this work. Their understanding of interpretative repertoires is based on the assumption that representations of events or objects are often contradictory or at least subject to high variation. This leads to the fact that several interpretations of the same event or object can exist simultaneously as part of the discourse: "Interpretative repertoires are pre-eminently a way of understanding the content of discourse and how this content is organised" [194, p. 90].

It is also easy to notice that this explanation fits quite well with the assumptions of topic modelling algorithms: "The interpretative repertoire is basically a lexicon or register of terms and metaphors drawn upon to characterise and evaluate actions and events" [148, p. 138]. Since such repertoires "can become evident through repetition across a corpus" [50, p. 443], the idea of interpretative repertoire can also be applied to a corpus-based analytic approach that studies how discourse is constituted across texts. Moreover, the authors' idea that a repertoire can be distinguished through a particular set of terms makes it especially suitable to use together with topic modelling as the main method. Therefore, in the articles, I tried to distinguish these interpretative repertoires routinely deployed by the authors to talk about immigration.

With this regard, I believe that it is relevant to mention the connection between repertoires and frames since both are used in the dissertation. Although one can find a few differences between the two approaches, I believe that they can be used

together and aim to describe and explain similar phenomena. While framing theory is concerned with what media and their interpretations of particular phenomena do to the audience (people), interpretative repertoires are more concerned with what the audience (people) do to particular phenomena and how they interpret them. But, since, in social media, the audience and media are essentially the same agents, this distinction does not seem to make a crucial difference.

Since the notion of the frame is also used in the dissertation on par with the notion of interpretative repertoire, I believe that the former deserves some discussion and an explanation about how framing theory fits in with discourse theory. Media frames have been described in framing theory as particular interpretative packages (compare with interpretative repertoires) that are used in relation to some events and phenomena discussed in the media and that "... can affect how people understand, interpret and react to a problem or issue" [177, p. 19]. Just as discourse theorists postulate that discourse can have a constructive role in relation to social reality, framing theorists also point at the importance of media frames in the construction of reality [165, p. 104-105]. Another similarity is that framing theory also pays attention to the role of contextual factors, such as existing norms and values or particular journalist practices, in the framing of news content [177, p. 23], which is also coherent with the idea about contextuality of people's interpretations in Wetherell's and Potter's approach. Although discourse and framing theories represent two distinct and independent strands of theoretical thinking, I believe that they can be seen as compatible with each other given the assumptions of this dissertation.

In this way, since immigration discourse represents a large and complex space of talk about immigration produced in the media, I believe that using the concepts of frames or interpretative repertoires helps distinguish these interpretative packages that approach, discuss and describe the topic in particular ways. The two concepts also make it possible to analyse the immigration discourse from several types of sources simultaneously. Another reason for using the notion of framing is that it fits well with the computational and corpus-driven approach and with the particular computational methods (first and foremost topic modelling) used for the data analysis. In particular, the application of topic modelling for frame analysis and the use of framing theory in discourse studies have been shown by the previous research (for example [142, 191]).

Ultimately, by using the discourse theory in my analytical toolbox, I am interested in looking at how people, in the production of text on the individual level, collectively create the notion of (im)migration and contextualise it in certain ways, and how this collective creative work is intertwined with and dependent on the architecture of online media. Although one might argue that migration exists out there in reality and represents an act of crossing an international border by a person/people, the discourse on migration and the socially negotiated meanings

of migration stretch far beyond this simple act of moving from one country to another. Possibly, more importantly, the discourse on migration and refugeehood, to a large extent, shape how these phenomena are perceived and experienced by the people. As put by Phillips and Hardy: "This interplay between text, discourse, and context helps us to understand not only how an individual comes to be a refugee, but also how the broader 'reality' of refugee policy and refugee determination procedures is constructed and experienced" [146, p. 4].

A good example from the above-mentioned work is the refugee determination policies in the receiving countries that are supposed to determine whether a particular person is a real refugee or not, as if there was an objective state of refugeehood that could be measured or determined. However, the whole status determination procedure turns out to be problematic since refugeehood does not exist out there — there is a predominantly collective creative work behind the emergence of this concept that in different circumstances could identify the same person as an asylum seeker or as an illegal migrant, depending on the dominant discourses and on how societies and governments conceptualise the refugee status.

Indeed, this inevitable linkage between discourses and the construction of reality has been highlighted by the discourse theorists [146]. In particular, the argument is that our social reality does not exist outside of the discourse — on the contrary, it is created by negotiating it and talking about it. If we apply this argument to the idea of refugeehood, we can only say that it cannot be discovered, but only invented [176]: "It is the discourse that makes reality available to us. This reality, however, is not unstructured reality out there; it is reality that we, members of discourse community, have constructed for ourselves" [176, p. 115]. Media, thus, can be seen as one of the main transmitters of this invented reality: "...our sense of the world which lies beyond of our personal experience, and our sense of our place in the world, are increasingly shaped by mediated symbolic forms", as Thompson contends [179, p. 34].

In this sense, this is from the media that we learn that there is a refugee crisis out there, and thus it exists only through the mediated discourse. Moreover, our attitudes to the events framed as a crisis are formed based solely on the media representations of these events as such. If not media, would we know that there is a refugee crisis in the first place? Yet, what seems problematic with this idea and what makes social media stand out as a new form of media is that the audience is no longer a passive recipient of the media content, and neither does it learn about particular events exclusively from the media. In particular, there have been some reported cases when social media users spread the breaking news before professional media managed to do so [135], which undermines the agenda-setting functions of media in a traditional sense.

In this way, Wetherell's and Potter's theoric approach helps to find a way out from this controversy by suggesting that discourse is both constructive and

constructed [147, p. 107] and that, indeed, individuals always have the power to choose from a variety of interpretative packages available to them [148, p. 219]. The focus of discourse analysis, therefore, is on "...strategic use of different repertoires and on the ongoing struggle to make claims accountable..." [20, p. 219]. A central question for discourse analysis, thus, is as follows: "...whose story will be accepted and become part of this general currency of explanation, whose version of events, whose accounts of the way things are?" [194, p. 62].

Finally, the last relevant analytic concept borrowed from the discourse theorists and researchers is the notion of *discursive shift*. It was suggested by Michał Krzyżanowski as a way to extend Norman Fairclough's idea of discourse change. While the latter represented fundamental changes in the ways social reality is constructed and represented, the idea of discursive shift is concerned with more local and situational changes in it [110] that can take the form of either gradual change or abrupt emergence of new meanings and ways to interpret particular phenomena [110]. Therefore, this work aims to understand whether the European refugee crisis in 2015 can be understood as a reason for a discursive shift and whether such a shift occurred in 2015 in the first place, whereby the discourse about immigration and immigrants was filled up with the new ways to contextualise and interpret these phenomena.

Summing up this section, discourse theory can be seen as a convergence point that binds all pieces of the analysis presented in this dissertation together, even though some of the articles do not explicitly mention discourse theory in the corresponding theory sections. Nevertheless, I tried to use this approach to guide my understanding of the research topic, and I also find it relevant given the way I operationalised discourse as consisting of particular frames or repertoires and sentiments. In the first article, for example, I tried to make an overview of how the immigration discourse was changing across the years, and especially in the light of contextual factors (the refugee crisis) and across the media platforms. In the second article, I focused on the user sentiment as on the emotional/subjective discourse component (please also refer to the methods section). One more task of this paper was to focus on the specifics of discourse practice on Twitter that is dictated by its networked architecture and the effects it could have on the user sentiment. The third article explicitly deploys discourse theory and gives a more detailed account of how discourse is produced on Facebook and how specific categories and constructs are created in social media texts. Finally, although the fourth article represents a methodological study, it nevertheless discusses the computational approach to identify users' stances that also can be seen as constituting this subjective and emotional component of the discourse.

3.3 Architecture of new media

In this dissertation, I use the notion of social media logic that I borrowed from Jose van Dijck [185] (which could also be used as a synonym of *technological affordances* or the *architecture* of new media) to refer to these networked properties of new media platforms that shape the production of discourse in particular ways and that were not typical of the purely mass-mediated communication era. Van Dijck explains social media logic as "... the processes, principles and practices through which these platforms process information, news and communication, and, more generally, how they channel social traffic" [185]. The notions of social media logic, thus, helps to understand how intrinsic properties and mechanisms of the social media platforms, such as, for example, connectivity and programmability, affect the formulation and production of the discourse and the development of discussions on social media platforms.

In particular, network thinking can help understand this social media logic by describing any media platform as having network infrastructure that connects its different parts, starting from single individuals (readers, content producers, professional journalists), social groups and institutions (users communities, NGOs, government agencies, newspapers), as well as other media platforms [44, p. 20], and even further to the societies as a whole, resulting in a connected world where links easily permeate time and space. Despite such connectivity, a network society is typically more diffuse and fragmented than a traditional one and consists of distinct clusters with denser connections within and sparser connections outside of the clusters [44, p. 36].

Because of such a networked architecture, social media platforms have a more decentralised, uniform network architecture with multiple connections between actors and communication costs (for both speaking up and listening to others) nearly set to zero. Thus, the distinction between a sender and a recipient, or between media and audience, fades away: "... now publics are communicating through complex networks that are bottom-up, top-down, as well as side-to-side. Publics can be creators, (re)makers and (re)distributors, engaging in shared culture and knowledge through discourse and social exchange as well as through acts of media reception" [94, p. 3]. In this manner, network scientists, and Yochai Benkler in particular, argue for a democratising function of such a networked architecture that gives birth to a networked public sphere [9, p. 213], since regular actors have more potential to discussions, engagement and participation. Indeed, opinion exchange on social media platforms becomes as easy as never before, which leads to the possibility of opinion diversification and the emergence of local online communities with shared values and interests [101]. Because new media rely heavily on the users' active participation and allow building local communities, they also enable the emergence of online activism and civic participation.

The Internet has emerged as a new (networked) public sphere, where discussions on the migration topic now occur through social-mediated communication. One can suggest that social media logic has changed the way the Swedish immigration discourse is formulated. The abundance of blogs, social networks, forums and alternative media has enabled a more diversified discourse about migration that is, first and foremost, articulated by regular users, although the members of elites, such as politicians, news agencies and civil society groups, also take advantage of the new possibilities for communication. The practices of following, liking and sharing published opinions have led to the emergence of a ramified network of content creators and consumers who organise themselves in clusters formed around particular topics and interests in the migration issue. Since published opinions no longer have to pass through mass media filters, one can imagine that migration discourse has become more diversified and nuanced. Audience members on social media platforms now have a possibility for face-to-face discussions, and this, one can hypothesise, has led to the emergence of local user communities and interest groups, such as *#refugeeswelcome* or the movement against the deportation of Afghani refugees.

However, the above-mentioned idea about a purely democratising function of digital media is not void of critique. Even Benkler, a networked society enthusiast, acknowledges that such a networked architecture does not prevent the reproduction of inequalities since the number of users willing to speak up grows at exponential rates while the number of those willing to listen remains the same. Because of this cacophony of voices, digital media turn into highly competitive environments where only a minority of messages can reach a relatively large number of recipients. Because of this, members of elites have higher chances to be heard, while the voices of members of under-represented and marginalised groups of the population almost disappear from the discourse. It has also been argued that the Internet leads to fragmentation of communities and even lower chances for meaningful dialogue and opinion exchange, something that critics call a digital divide [44, p. 179], [101, p. 11].

In an ideal world, as predicted by the theorists, citizens will encounter and conceive of an infinite number of diverse opinions that can both support and contradict their own, which would give birth to genuinely democratic deliberation. However, new media critics point out that, because filters of mass-mediated communication no longer work in online social networks, extreme opinions and narratives need to pass much fewer barriers to spill over to the mainstream discourse and become legitimised by the public. On the other hand, it has been found that users occasionally listen and speak only to those who have opinions similar to their own, which has been named as a mechanism of selective exposure. As predicted by the networked society enthusiasts, users can form interest groups around the discussion topics, with the only difference being that the deliberators can centre their discussions around radical and extremist topics.

Some of the consequences of selective exposure are users' opinion polarisation and the emergence of echo chambers that consist of users echoing and re-iterating only one prevailing opinion or formed around one key idea or view. Both of these unwanted consequences of users' deliberations were well summarised by Cass Sunstein in just one sentence: "when people find themselves in the groups of like-minded users, they are especially likely to move to extremes" [174, p. 2]. A reason for people moving to extremes, according to Sunstein, is the sole fact of their deliberation, which results in the cases when people adjust their opinions according to those prevailing in the group. A necessary condition for the emergence of these enclaves or clusters is their segregation from the rest of the network, which is also a typical trait of any networked society that, as we saw above, can be characterised as having sparse connections outside of the clusters.

Incivility and radicalism are the phenomena that materialise in a discussion environment available to anyone since the networked media platforms give place to all voices and narratives, even the radical ones. This leads to the emergence of a counter-public or uncivil society that consolidates in the echo chambers and polarised groups [46, p. 198] since it is traditionally marginalised and excluded from the mainstream discourse. Instead, counter-publics rely on alternative media and get mobilised through online communication. These marginalised narratives can subsequently migrate into the mainstream discourse and become legitimate topics for discussions, which was denoted as "information laundering" [106].

Applying these ideas to the Swedish case, one can, in fact, witness that the networked public sphere has produced a variety of counter-narratives on migration that could not pass the filters of mass-mediated communication. In the last years, researchers have provided evidence for the emergence of counter-publics represented by the readers of several alternative media, such as *Avpixlat* or *Fria Tider*, or the users of Facebook groups that included explicitly hateful content [54, 113, 138, 183]. As we saw above, while networked architecture has generally enabled the rise of relatively closed and marginalised groups of users, one can assume that their counter-narratives could diffuse into the rest of the networked public. It is, of course, hard to evaluate the degree of spillover of such a discourse to the mainstream public arena. However, one can at least hypothesise that the technological affordances of new media have created favourable conditions for the manifestation of these narratives as part of the immigration discourse. Therefore, in this dissertation, I aim to uncover some of the above-mentioned phenomena enabled by social media logic, in particular, sentiment polarisation in the Swedish migration debate on social media.

Research design

4.1 Big data and data-driven research

The digital age provides endless opportunities to acquire knowledge that previously was almost impossible to obtain. The source of this knowledge is online data that come into being due to people's everyday lives and interactions, so-called digital traces [160, p. 13]. Together with what we today occasionally call big data, these digital traces have allowed for the development of the field of computational social science. Duncan Watts, one of the pioneers in network studies, has argued that these data can "revolutionise our understanding of collective human behaviour" [193], something that was hardly possible in the history of sociology in particular and social studies in general. Accordingly, this dissertation represents an example of data-driven research that builds on big data as the main source of knowledge and utilises computational social science methods.

Big data differ substantially from small data that were traditionally used in sociological studies and, in most cases, were collected exclusively to test some particular hypotheses formulated by the scientist and comprised up to several thousands of sampled observations. Big data are different from small data in several ways that are usually denoted as 3V (volume, velocity, variety) [104], which designates their large-scale character, almost real-time production and diversity of formats and types. On top of this, some scientists add a few other traits, such as exhaustiveness, high resolution and flexibility [104]. The contrast between the two was best summarised by Rob Kitchin, who stated that big data are "systematic and continuous in operation in coverage, verifiable and replicable, timely and traceable over time ... They offer the potential to shift from 'data-scarce to data-reach analysis, statistic snapshots to dynamic unfoldings, coarse aggregations to high resolution, and relatively simple hypotheses and models to more complex, sophisticated theories" [105, p. 29]. Therefore, the research strategy and design in data-driven studies differ quite dramatically from the ones of classical sociological studies and imply several opportunities and limitations. On the one hand, data-driven research presents several opportunities:

- Big data are relatively easy, cheap and fast to collect [60, p. 59]. Data collection for this project was finished within three months and did not require any fieldwork.
- Big data are non-reactive, that is, not biased by the respondents' awareness about their participation in the study [160, p. 23]. In the studies that focus on controversial topics, such as people's attitudes to migration, this eliminates the risk that respondents will provide socially approved answers to the researcher's questions.
- There is a reduced need for sampling since the researcher usually possesses complete information about the whole population (i.e., all forum posts or newspaper articles published within the given period, rather than just a small sample of several hundred documents).
- A researcher can merge and combine several data types or sources, adjust and alter the data (i.e., add new variables, datasets, or extend the study's timespan).
- Big data allow answering new types of research questions and catching new aspects of social reality, in this case, communication patterns between users who have radical or populist attitudes. It would otherwise be problematic to map their discussions with the help of traditional sociological methods.
- Most often, big data allow complete replication of the results, which is becoming a professional norm in the social sciences.
- Big data are usually fine-grained and have a high level of detail. Even though this was not my research task, I could, at least in theory, track hourly changes in the social media users' attitudes to migration.
- The volume of collected data (i.e., millions of observations) far exceeds the limits of traditional data collection methods. While this is not a strength in itself, the use of big data in social studies could potentially lead to the extension of scientific dialogue beyond the disciplinary boundaries and add reliability to the results of the analysis.

Despite some evident strengths, bigger data does not necessarily mean better data [22]. For a sociological project, it means, in particular, the following:

- Big data are unrepresentative since the population of the Internet and social media users usually over-represents young people, which is, evidently, not the same as the Swedish population in general. Therefore, there are some limits to generalising the study results to the Swedish population as a whole.

- Big data are usually noisy since they were not intended for research purposes. There was thus a need for extensive data wrangling, cleaning and pre-processing to adjust the data for my particular research tasks.
- There is also a need for high computing power for data collection and analysis that are sometimes problematic to fulfil on a regular laptop and may take up to several days to perform. Most parts of the analysis were performed with the help of the Linnaeus University Centre for Data Intensive Sciences and Applications high-performance computing cluster.
- A researcher has to possess particular programming and methodological skills to perform data collection and analysis since traditional research methods used in sociology cannot be used to analyse these data. For me, this implied learning all data collection and text analytic methods from scratch, starting from web scraping and text pre-processing to topic modelling and machine learning.
- Unreflexive use of the results of the analysis might lead to “seeing patterns where none actually exist” [22]. Special attention needs to be paid to evaluate the validity of the analysis [60] and provide an interpretation of the results.
- To provide correct interpretation and contextualisation of the main findings, however, is one more challenge in data-driven social research, since “Context is hard to interpret at scale and even harder to maintain when data are reduced to fit into a model” [22].
- There are new legal and ethical concerns that a researcher needs to address and that are discussed below at the end of this section.

Despite those limits of data-driven research, some of the big data enthusiasts have gone so far as to claim “the transition to a new paradigm” that is expressed as a “new era of empiricism” and “the end of theory” [104]. The big data enthusiasts explained this contention by suggesting that, in the era of data-driven research, scientists simply need to apply data analytic techniques to completely understand the patterns found in the data. From the sociological perspective, these statements, of course, sound too extreme and need to be challenged. Indeed, while data analytic techniques may provide the whole set of patterns found in the data, there is still a great need to contextualise the results of these models and to provide their meaningful interpretation [22, 104].

Indeed, the limitations concerning the interpretation of results seem to be the major drawback in data-driven social studies in general and discourse studies in particular, especially when data analysis is limited by the use of computational methods. Although initially I was only planning to conduct a distant reading of the corpora [97], along the way, I realised that this approach had its limitations

because it was indeed difficult to interpret the results at such a large scale. For instance, a topic model with ten topics and one hundred keywords was enough to provide a general overview of thousands or millions of documents. However, it could not give a detailed account of the corpus content. Contextualisation of model results was also very difficult without an opportunity to “zoom in” and analyse individual documents. It seems that a mixed-methods approach that combines both computational and qualitative methods, and distant and close reading in the case of discourse studies, is to be preferred when possible.

Another argument against the coming “era of empiricism” and understanding of big data as neutral and objective sources of knowledge about social reality relates to the discussion presented in section 3.3 (“The architecture of new media and the discourse practice”). Following network theorists, I have tried to demonstrate there that platform affordances, as well as changes in their designs, can have an effect on how discourse is produced on them. A good example to demonstrate this constitutive role of platform architecture comes from the second study, where we explore the dynamics of user sentiments on Twitter. One of the observations in this article was that the changes in the tweet length (from 140 to 280 characters) in 2018 affected user sentiment in the tweets — in fact, we found that they had become more negative. While this is a somewhat logical and expected observation (indeed, how is it possible to express one’s feelings and emotional state in just 140 characters?), this example demonstrates quite well that minor changes in platform design can quite dramatically affect the process of discourse production on social media. In this manner, big data can hardly be described as digital traces that objectively represent social reality. On the contrary, as it usually happens in social sciences, a more realistic way to regard this new bulk of knowledge as a rich but nevertheless imperfect data source.

Finally, concerning my perception of the scientist’s role in big data research, my ambition was not only to apply particular data analytic methods and then to report the results, but rather to provide a coherent picture and to tell the story behind the numbers obtained after the use of various methods and models, as well as to connect these results with the existing theories and empirical evidence from the sociological field. This effort to provide an interpretation of the results leaves room for researchers’ subjectivity and leads to the fact that results are open so that different scientists might interpret them differently. This observation goes against the assumption that the use of formal methods in social sciences will mitigate researchers’ influence on their projects. Nevertheless, the use of computational methods eliminates the risk of so-called cherry-picking from the data to meet the researchers’ pre-existing conceptions and ideas about the research topic.

Thus, trying to reflect on my position as a sociologist and to locate myself in the methodological and theoretical landscape of sociology, I cannot avoid quoting

Manuel Castells, who has provided a perfect summary on the role of sociology, and which perfectly fits my stance as a sociologist and a researcher:

Overall, sociology should, and will, overcome the sterile, artificial opposition between quantitative and qualitative research, and between theory and empirical study. ...it does not really matter what comes from statistics or from ethnography. What matters is the accuracy of the observation, and its meaning. Thus, formal models scripted in the computer programs must be theoretically informed, yet able to be given information apt to answer the questions raised in the theory. The sociology of the network society will develop through synergy among relevant theorising, computational literacy, and sociological imagination. [31, p. 698].

4.2 Computational linguistics for discourse analysis

This work uses a corpus-based analytic approach — in other words, the primary objects of the study are corpora (collections of texts) coming from various online media. The goal is to find patterns in the language use to study how language is employed to construct the immigration discourse in various social media using large collections of texts from each of the sources [6, p. 178]. Therefore, this work is not that much concerned with how discourse comes into being on a micro-level (of individual texts), but rather the aim is to “identify linguistic patterns that occur across large text sets” [173, p. 154] with the help of statistical and computational methods. Corpus-based approach was proposed to be especially effective in the studies of discourse dynamics and counter-discourses since it can provide direct evidence for the changes in the language use across years or discourse types [6, p. 14].

Nevertheless, despite the growing body of corpus-based or corpus-driven studies, it has been noted that there still exist substantial differences in the premises of the two approaches, so some researchers pointed out that “Doing corpus analysis is not the same as doing discourse analysis (DA)” [62, p. 174]. In particular, some critical points are that corpus-based approaches deal with “textual traces” of people’s actions and “treat texts as a product rather than as an unfolding discourse as process and social action” [62, p. 174]. After all, discourse analysis is an in-depth and qualitative approach, whereas corpus-based studies rely on quantitative and statistical methods, which also relates to a similar question about the distinction between micro- and macro- sociologies. In this way, it might be challenging to reconcile corpus-based and classical discourse studies, although I suppose that the development of computational social science opens up the opportunities to work on the ways in which these two approaches can be used together.

In this dissertation, I understand *discourse* as consisting of particular interpretative repertoires (or frames, in framing theory’s terms). The former can be

described as particular schemes or ways of interpreting and representing a particular topic (please refer to section 3.2). For instance, concerning the immigration topic, a wide and complex issue, some particular examples might include the “cost of immigration” frame or repertoire that would interpret and contextualise immigration in a particular way: as generating costs or benefits for the society. Another example could be a “threat” repertoire that would represent exactly the same issue — immigration — as a criminal or terrorist threat to the host society. Obviously, these different and often contradicting interpretations can perfectly coexist with each other — and that is why frames or repertoires can be understood as constituting discourse on immigration [194, p. 90]. One of the tasks in discourse analysis, therefore, is to study the variability of these interpretative repertoires [194, p. 101]. To study such variability across the resources and years, I used topic modelling as one of the main analytic tasks.

Sentiments, then, can be described as a more emotional and subjective discourse component — *how* people talk about immigration and which emotions they express when writing messages, be it anger and disgust or sympathy and trust, as well as general positivity or negativity of the message or concerning a specific topic. Sentiments can become an important part of corpus-driven discourse studies since the results of applying topic modelling or other methods do not always allow immediately concluding how the discussion topic is interpreted and conceived by the speaker (writer). For instance, in a discussion of immigration using the welfare perspective, authors’ emotions and attitudes can be either positive (e.g. solidarity with those using the welfare system) or negative (e.g. disapproval or disappointment).

In what follows below, I would like to describe two main text analytic tasks, as well as to give a brief account of social network analysis as a supplementary method. The main objective of the former (represented by topic modelling and sentiment analysis), essentially, is to automate the process of document classification based on their authors’ sentiments or stances about migration or based on their main topics or themes of the discussions. While sentiment analysis is more concerned with the emotional and subjective aspects of the discourse (how immigration and immigrants are talked about in the corpus), topic modelling aims to distinguish more substantive elements of the discourse. The use of these methods allows, therefore, to analyse a large volume of documents in a more systematic way than could be done manually and to minimise (at least to some extent) the researcher’s involvement in the choice of particular documents and their subsequent analysis. This, however, does not mean that computer-mediated discourse analysis is completely free from researcher bias.

Moving to the first task (topic modelling): although discourse analysis has always been seen as a primarily qualitative field of analytic work, the research has suggested that topic modelling is a tool that actually can help scientists uncover the “discursive units” in the corpora such as frames or interpretative repertoires:

“This means that by studying the relations between topics ... we can lay bare how discourses are assembled and configured out of smaller discursive elements” [96].

Although there exist multiple variations and flavours of topic modelling, its main task is generally to divide the documents populating the corpus into several clusters in such a way that each cluster would include documents primarily focused on one particular topic or theme and supplement it with a few keywords that describe the topic. The main assumption, irrespective of a particular algorithm used, is that these document clusters or topics can be distinguished by studying word co-occurrence patterns in the documents and by extracting a list of keywords that most likely describe or are associated with a particular topic and that are further interpreted by the researcher to understand what the topic is about. The strengths of using topic modelling, first of all, is that it allows reducing the researcher’s involvement in the definition of particular topics since they are generated automatically by the model (this, of course, applies only to unsupervised topic modelling as in the studies included in this dissertation). It also provides a possibility for the combination of distant (topics) and close (documents) reading of the corpus.

The second main text analytic task was to perform sentiment analysis of the corpora. It needs to be mentioned that, in this case, I use *sentiment analysis* as an umbrella term that includes various kinds of tasks that are traditionally distinguished in the computational linguistics literature, such as opinion mining, polarity detection or stance classification [83,129]. This task, as it follows from its title, is concerned with studying the tonality of documents in the corpus and with more subjective and emotional aspects of the discourse or users’ expressions — not what is being said in the texts, but rather how it is being done. A common task is to classify documents into several categories, such as negative/neutral/positive, hateful/non-hateful, agreeing/disagreeing or in favour/against. Concerning the particular studies included in this dissertation, I was mainly interested in document *sentiments* — documents’ overall tonality, irrespective of particular targets mentioned [169], as well as users’ *stances*, or, in other words, users’ attitudes or positions directed at specific target [129], in this case, the topic of immigration.

In this work, I used two approaches to sentiment analysis — unsupervised (lexicon-based) and supervised (machine learning-based) ones [98]. The former uses lexicons, or custom word lists containing information about the sentiment polarity of the words populating those lists. Document polarity is further calculated based on the polarity of all words populating each of the documents. Lexicon-based classification, therefore, is a straightforward and fast ready-to-use technology that does not require any computational resources, specific methodological skills or training data. On the other hand, a certain constraint is that the classification performance of lexicon-based methods is often limited due to the limited scope of the lexicons (important words may be omitted) and

their reduced capacity to handle such issues as the use of negations or sarcasm. This work used lexicon-based sentiment analysis to distinguish between different types of sentiments in mainstream and social media data (Twitter and Flashback).

Due to those limitations, a statistical machine learning approach can be seen as a more robust alternative that allows building customary classification models. Such an approach requires a training dataset consisting of the documents and corresponding sentiment or stance labels. The actual texts in the documents are then transformed into feature (i.e. numeric) vectors, and a machine learning classifier is trained to distinguish between the vectors belonging to different classes [122]. The resulting model can then be used to predict the document classes for previously unseen and unlabelled data. This work applied supervised learning for the Flashback data to classify users' stances concerning the Swedish immigration agenda.

It is evident that any automated classification methods, although they allow working with big data and at least to some extent eliminate the risk of human bias and subjectivity, are prone to misclassification error and cannot achieve the same level of detail and immersion in context as human evaluators, since natural language is intrinsically ambiguous. Yet, as stated by Grimmer and Stewart: "All quantitative models of language are wrong — but some are useful" [71]. Although such models can approximate the patterns found in the data and inform theory building, the researcher's interpretation is of primary importance. Therefore, while most of the quantitative text analytic methods return some output model (i.e., a topic model), the researcher needs to carefully evaluate these results [71].

As for both approaches to sentiment analysis, the research has pointed at a few challenges that impose limitations on the final classification accuracy, such as the presence of negations and sarcasm in the documents, as well as multiple opinions expressed in a piece of text [98]. Another challenge relates to the narrow domain of the corpora, which implies that some very specific words may be used or that the words may have different meanings depending on the context of their use [98].

The results of text analysis were coupled with social network analysis (SNA) that assumes that any systems of relations between entities can be represented in the forms of networks consisting of nodes (actors) and arcs (relations) between them. Therefore, the SNA approach helped me to build social media users' networks and to analyse their interaction patterns with other users and community membership. The value of network analysis was best formulated by Thomas Friemel: "Social network analysis (SNA) is a way to re-incorporate context and bridge the gap between micro and macro ... SNA allows researchers to retain the traditional units of recording but simultaneously broadens the perspective by including information about the relationships across these units. This additional structural information allows researchers to address existing research questions with new tools and to approach them from a different theoretical angle" [64, p. 10-

11]. The strength of network analysis, thus, lies in the possibility to account for both micro- and macro- processes in the discourse formulation and to study how users, acting individually (for instance, by sharing information or joining particular network communities), contribute collectively to the formulation of migration discourse. Moreover, network theory is also compatible with both discourse theory and Thompson's media theory since both of them rely on the idea of interactivity.

Finally, when working with big data, one has to consider a few legal and ethical questions. First of all, when using automated data collection on the Internet (so-called "web scraping"), the researcher has to respect the ownership of the data and intellectual property law [60, p. 128]. Thus, web crawling was performed only on the Flashback forum that allowed this type of automated data collection. The rest of the datasets were obtained through official channels: Full-archive search API (Twitter data), Mediearkivet database (newspaper articles) and CrowdTangle platform (Facebook data). Another constraint with this regard is a limitation on publishing collected datasets on open repositories, even though the latter is gaining recognition as a scientific standard [133]. Therefore, only the scripts were made publicly available, whereas metadata for the collected texts were published instead of the complete datasets so that they could be recollected later.

Participants' integrity and privacy are another issue that needs to be considered when working with big data. On the one hand, the messages published on social media are public because anyone can access them at any time point, provided that the author's account is not a private one. Social media data often do not include detailed personal information unless users deliberately wish to make it public. In some cases, the platforms abide users to agree to third-party processing of their personal information, which, however, does not eliminate the need for a researcher to respect users' integrity. It has been pointed out that social media users are not able to give informed consent to the processing of their personal information and the use of their messages for research purposes [60, p. 24] since it is not possible to ask for consent from such a large and in most cases an anonymous group of people. Furthermore, people might not be aware of what their behaviour on social media can mean for their anonymity or that their social media activity can be used for research purposes in the first place. Several measures were undertaken to take into account these ethical aspects. In particular, only the information available in open pages and sources was collected; in publications, the analysis results were presented in such a way that no individual users could be identified; the data were not published on the open repositories.

4.3 Data collection

Moving further to the materials used for the analysis in this dissertation, the main data span between 2012 and 2019 (in some cases, 2020) and come from several different sources: Swedish official newspapers, online social networks (Twitter and Facebook) and an online forum Flashback. Generally, the aim was to collect documents that discussed migration in Sweden between 2012 and 2019 since the European refugee crisis reached its peak approximately in the middle of this period. Documents to be included in the corpora on Twitter, Facebook, and newspapers were identified with the help of keywords, which is a crude but fast way to identify relevant documents. This, of course, meant that some irrelevant documents were included in the corpora, which was especially evident for the newspaper data. Moreover, only documents in Swedish were included in the corpora, which left out a certain number of documents in other languages, and particularly English. The above-mentioned data sources were chosen based on two main conditions: they are used by a relatively large number of Swedish residents, and, more importantly, they are relatively easy to gain access to and collect data from legally and ethically.

The newspaper articles from six biggest Swedish official newspapers (Aftonbladet, Dagens Nyheter, Expressen, Göteborgs Posten, Svenska Dagbladet and Sydsvenskan) were collected via Mediearkivet's research API in January 2020. My search query included the Swedish equivalents of typical keywords, such as "migrants", "immigrants", "migration", "asylum seekers" and so on. A total of 85 thousand articles were collected. Access to Twitter data was gained through the official full-archive search in March 2020. A total of 1.19M tweets were collected. The search query included keywords similar to those that were used for the collection of newspaper articles. Only tweets in Swedish were collected, and retweets were excluded from the query. Moving further to the Flashback forum, its section called "Integration and immigration" was scraped in February 2020. A total of 1.69M messages were collected. Finally, during autumn 2020, I also gained access to the new Facebook platform CrowdTangle, which allowed collecting Facebook data. The data were collected in the same manner as the rest of the resources, with the only difference that CrowdTangle grants access only to public pages and discussion groups with more than 50k members, which inevitably serves as a constraint for generalising the results of the analysis. A total of 1.25M posts were collected.

Apart from the texts themselves, the corpora included metadata such as dates of publications or a number of user reactions, whereas Twitter and Flashback data also included information about the users' connections, such as replies to or quotations of others' messages. The texts were subsequently pre-processed. While certain cleaning steps differed depending on the research tasks, generally, the pre-processing included removing duplicated or short messages and, where

needed, removing HTML markup, URLs, numbers, stop-words, hashtags, user mentions and punctuation, as well as tokenisation and lowercasing.

Data collection and analysis were performed in Python [186] and R computing environment [153]. I used a range of packages for data collection, preprocessing and modelling, in particular *httr* [195], *rvest* [196] and *rtweet* [103] for data collection, *quantda* [10] and *nlTK* [12] for pre-processing and data wrangling, *syuzhet* [99] and *VADER* [90] for lexicon-based sentiment analysis, *topicmodels* [73] for topic modelling, *scikit-learn* [145] for machine learning, *gensim* [156] for word2vec and doc2vec modelling. Access to High-Performance Computing Cluster (HPCC) to conduct data collection and analysis was granted to me by Linnaeus University's Centre for Data Intensive Sciences and Applications (DISA).

Chapter 5

Summary of the main findings

5.1 Discourse dynamics and the refugee crisis

Summing up the findings of this work concerning the role of external contextual factors in the shaping of the immigration discourse and the ways in which particular events can intervene with the discourse dynamics, one could find that the refugee crisis played a somewhat ambivalent role in this process, while the results of my analysis provided mixed findings. On the one hand, as shown by Article 1, we have seen some changes in the interpretative repertoires and sentiments used in the news content across the years. For instance, on Flashback, some repertoires, such as religion and illegality, have become more important and frequent after the end of the crisis, while some emotions, such as disgust or fear, have become more frequently expressed in the content on social media. The results of the analysis presented in Article 2 have also highlighted some changes in the dynamics of users' sentiments on Twitter. The latter have indeed become more negative, especially after 2016, which can also be connected to the effect of this particular external event on the discourse dynamics.

Concerning the particular interpretative repertoires used across the media types and platforms, as shown in articles 1 and 3, one could identify a few general patterns: in particular, there exist some rather general and typical ways of interpreting the immigration topic that irrespective of platform type, such as those discussing immigration in the context of national or international politics, effects on local and state finances and welfare system, as well as various aspects related to crime and illegality. Especially surprising in this regard was the presence of the latter frame in the interpretative repertoire of the Swedish newspapers throughout the study period since I expected that traditional media outlets would not resort to the use of this interpretative package in a systematic way.

Nevertheless, while all of the above-mentioned observations on the changes in the sentiment and repertoire dynamics can be admittedly related to the crisis, the question that remains open is whether these changes can be described as an abrupt change in the discourse dynamics or as a unique event — something that has been denoted as “discursive shift”. Empirically, such a discursive shift could be expressed as a sharply growing proportion of migrant-critical repertoires and more negative sentiment of the messages. The idea of such a dramatic and abrupt

change, in its turn, has been underpinned by the researchers' descriptions of the changes in the discourse dynamics as such [35]. Although, as mentioned above, I have found some changes in the discourse dynamics after the refugee crisis, it is not a straightforward conclusion that they could be characterised as being substantial and considerable enough to be denoted in terms of "discursive shift", especially given that some of them disappeared by the end of the study period. In part, this argument supported my conclusion from Article 1 about the absence of fundamental and long-term discourse changes.

A possible explanation that allows marrying the results of my analysis with those provided by earlier research can be related to the growing *salience* of the immigration issue in the media discourse in general [88], rather than any dramatic changes in *what* was said about migrants. As explained in section 2.1, the interpretative repertoires used in the media during the refugee crisis could hardly be named as radically new — in fact, as demonstrated earlier, most of them were active already in the 1970s and 1980s [3,48,163]. Yet, possibly, something new in relation to the crisis could be the growing importance and frequency of the immigration topic in the media discourse. Indeed, social scientists have previously pointed at the growing salience of the immigration issue during times of crisis in the Swedish media [70]. Obviously, this observation is something that my analysis could not capture since the study design chosen for this project did not aim to track how the immigration topic's salience changed over time in comparison with other topics.

Another possible explanation can be related to what Michał Krzyżanowski calls as strategic gradation of socially relevant issues when the old interpretations and ways to construct them get gradually, rather than abruptly, replaced by the new competing interpretations [110]. In this way, one could argue for moderate but persistent changes in the discourse long before the refugee crisis. This argument also fits quite well with another statement on the normalisation of racist narratives in the mainstream discourse [112], which can also be explained by other contextual factors that shape discourse production. The latter can be exemplified by the rise of Sweden Democrats in the 2010s and the "return of assimilation" [114, p. 32] in the public policy before the refugee crisis took place.

Obviously, when interpreting the results of the analysis on the effect of the crisis on the media discourse, one reservation needs to be made concerning the particular methodological choices and the effect that these choices could have on the results of the analysis. The analysis results presented in the first two papers have been based exclusively on the distant reading of the corpora, and this could have left some less evident changes in the discourse unnoticed. The same goes for the methods of unsupervised sentiment analysis that have been used in these papers and the constraints to the classification quality that inevitably follow from the use of these methods. Finally, the choice of a particular topic modelling algorithm, number of topics and number of models produced have

been dictated by the constraints of algorithm availability and the amount of data to be analysed. Therefore, the chosen study designs could also have constraints with regard to their ability to actually detect some less evident changes in the discourse dynamics, which, however, does not undermine their relevance for this project.

5.2 Immigration discourse on online platforms

As suggested by the results of the analysis outlined in Article 1, the immigration discourse in social media could indeed be characterised as more negative in comparison with the one in traditional media and as including a variety of potentially prejudiced frames absent from the mainstream discourse, such as those concerning multiculturalism, religion and criminality, as well as some explicitly hateful frames. More importantly, those observations apply to the whole study period (2012 – 2019). It also seems that social media discourse has been more prone to fluctuations and the effect of the refugee crisis as an external event. To a large extent, these observations are quite logical: while traditional media are constrained by professional standards, ethics and norms, social media can avoid the institutional barriers and filters as predicted by network theorists [101, 117]. Low entry barriers for the content producers (creating a social media account and writing the first message is a matter of minutes), as well as insufficient mechanisms that filter the content, may open up the ways for expression not only for the political actors who are otherwise excluded from the mainstream political arena but also for the “ordinary” users who rarely enjoy the attention of mainstream media. This provides social media users with opportunities for articulating the repertoires and sentiments that are seen as not belonging to the legitimate type of dialogue [139]. Finally, the presence of feedback mechanisms allows users to immediately re-frame or challenge the frames of the immigration issue suggested by the mainstream media [39].

Despite some general patterns in the similarity of interpretative repertoires used across the platforms, some differences are also quite visible. For instance, as demonstrated by Article 3, Facebook was the only social media platform where the immigration issue has been explicitly contextualised in terms of the need for refugee support and assistance, despite the fact that the “humanitarian crisis” repertoire was present in other resources too. Moreover, two more repertoires on Facebook were also dedicated to the questions of migrant reception and integration, which also means that half of all Facebook repertoires were in one way or another dedicated to the discussion of potential help and integration of migrants in the Swedish society (a certain reservation here, though, is that I used a different methodology to identify frames on Facebook in contrast to Twitter and Flashback). Flashback, to some extent, was an odd duck in the sense that it included some repertoires absent from other media resources, such as

begging (and EU migration in particular), race and ethnicity and religion, and thus seemed as the platform with the most fringe repertoires. Returning to the theoretical premises about the contextuality of discourse, it is quite evident that discussions on different platforms give birth to slightly different interpretative repertoires as part of the immigration discourse.

Therefore, it is possible to argue that social media, contrary to the mainstream ones, can be characterised with the help of a notion of anti-systemness that provides alternative interpretations of the immigration agenda, which is in line with the results of previous research [86,113]. Despite the above-mentioned argument about the normalisation of racist rhetoric in the mainstream media, social media still seem to serve as spaces for counter-publics, so that the power of counter-narratives in mainstream media still cannot be compared with the one in the social media.

As of the theoretical standpoint about social media playing an important role in the construction of social reality through the discourse, my third paper has aimed to show the differences in the discursive construction on refugee and immigrant categories since the results of previous studies of labelling and representation of refugees and immigrants in European media provided mixed and sometimes contradictory findings [61,85]. Although the distinction between these two categories is blurred and in many ways problematic, I have found that the Facebook audience tended to contextualise refugeehood as a position requiring social assistance and support while migrantness was represented with the help of the references to the potential threats, costs and profit for the host society. Or, to put it another way: when the references to potential threats, costs and profits were made, the *immigrant* category was more likely to be used.

Even though the two categories imply quite different interpretations and consequences, two factors that make them similar are the representation of both categories in terms of otherness, even in cases when social media users talk about them in a seemingly positive light, and their objectification [19]. Concerning the *refugee* category, such an objectification can be described as turning it into a matter of policy concern and corresponding interventions, while the *immigrant* category was in a way turned into a commodity that could be capitalised upon, or, if it was not possible, expelled or punished. In this way, one could find a striking resonance between these observations and previously made statement that, in the Swedish context (and, possibly, elsewhere in the world), the categories of immigrants and refugees imply entirely different sets of characteristics rather than those intended by their “dictionary” meanings [136]. In relation to such categorisations and labelling, a definite strength of discourse theory is that it allows problematising the existing distinction between the two labels and represents categorisation as a dynamic and context-dependent process.

Another significant result of the analysis is that the architecture of social media can affect the discourse dynamics. In particular, as shown in Article

2, even minor changes in how social media are assembled and function can affect the discourse and lead to changes in the user sentiment. In the case of Twitter, a mere change in the tweet length led to a decreased user sentiment. On the methodological level, this implies that researchers need to be extremely aware of the ways in which algorithms and architecture of social networks shape whatever happens in them — this can be seen as direct evidence against the “new empiricism” and digital traces as an objective and impartial reflection of social reality.

It is quite apparent that the architecture of new media, with its flat hierarchy and the absence of institutional gatekeepers, provides what has been called discursive opportunities [192] for the articulation and normalisation of the alternative discourse. In particular, social media may have the power to facilitate the increased visibility and resonance of the frames and narratives that are marginalised in the mainstream discourse [192], which is evident from the comparison of the interpretative repertoires on social and mainstream media. On top of this, the visibility of counter-narratives is supported by the mechanisms of selective exposure and homophily that have been reported in online social networks [192], whereby social media help the counter-narratives to reach their audience. Indeed, in our study of the Twitter discussion network (Article 2), we have found that user communities, to a large extent, are represented by like-minded users who share similar sentiment about the immigration topic.

On the other hand, in our analysis, we have found that some predictions of the network analysts did not hold. For instance, several theories postulate social networks’ tendency to clustering and formation of closed communities, which leads to the emergence of polarisation and echo chambers [44,46]. While we indeed found patterns of sentiment homophily on the cluster level, as predicted by the theory, such homophily led neither to subsequent users’ polarisation in our network nor to the emergence of closed echo chamber-like communities. These observations could be seen as an argument against the overwhelming social media pessimism shared by some social researchers.

In relation to the interplay between the previous Swedish immigration history and crises, as well as the role of new media in the shaping of the discourse on them, the events of 2015 could also be seen as the first major events in the sphere of migration that were extensively reported on, discussed and reflected upon in the social media. It is evident that online media have an ambiguous role in the shaping of public debate on immigration. In particular, the counter-publics, to formulate their anti-system discourse on social media, exploits exactly the same affordances of social media that have otherwise been praised for enabling civic activism and participation.

Nevertheless, it is still not clear if, or to what extent, such an alternative discourse could contribute to the normalisation of racist rhetoric in the mainstream discourse. Something that could be covered in future research is the degree

of such an alternative discourse's influence on the mainstream discourse and the degree of possible spill-over to the mainstream framing of the immigration agenda. Another possibility to extend this work is to analyse other types of content (such as TV and radio programmes). One more avenue for future research could be to give more space to a more qualitative and in-depth reading of the documents included in the corpus to catch more complex and discreet changes in the media rhetoric, which could provide a more detailed picture of the discourse dynamics. This would also allow developing ways of combining distant and close reading and mixed-methods approach in discourse studies.

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