Using party press releases and Wikipedia page view data to analyse developments and determinants of parties’ issue prevalence: Evidence for the right-wing populist ‘Alternative for Germany’

Marc Debus¹ and Christoffer Florczak²

Abstract
We make use of party press releases and Wikipedia page view data to study issue dynamics and its determinants of a relatively young right-wing populist party. By applying structural topic models, we analyse 2262 press releases of the ‘Alternative for Germany’ (AfD) from 2013 until 2019. The findings reveal, first, that European integration, EU economic policy, and migration are prevalent topics, but that a change occurs over time so that the focus on economic policy decreases as the focus on migration policy increases. In addition, we show – by using novel data that provides information on the number of daily hits of entries in the German Wikipedia – that the AfD took the attention into account that people attached to European integration and migration issues when preparing their press releases. The results support the findings of existing studies and imply that the content of press releases can be used for measuring changes in the policy profile of parties during a legislative period when normally no manifestos are published, and that the interest in Wikipedia articles can serve as a proxy for the dynamics of issue salience among the population. Furthermore, the findings indicate that a combination of these two data sources is a fruitful approach for studying the determinants of short-term issue dynamics.

Keywords
party competition, party press releases, topic model, Wikipedia page view data

Introduction
There are several possibilities to measure the policy positions or the issue profiles of parties. A huge amount of research is based on the (qualitative or quantitative) analysis of election manifestos. The most important data resulting from the analysis of manifestos is the work of the Comparative Manifesto Project (MARPOR; see Merz et al., 2016), while a similar large number of studies concentrate on the results of expert surveys (e.g. Polk et al., 2017), on surveys among the population (e.g. Adams et al., 2005) or among the political elite (e.g. Gschwend and Zittel, 2015). Studies that focus on the determinants of changes in the profile of parties rely on these data sources and develop a dependent variable that provides information on the changes of the ideological profile of parties over time, so that – with the assistance of survey data – one can, for instance, evaluate if parties shift their positions because of ideological moves within the electorate (e.g. Somer-Topcu, 2016).
These studies indicate that there is indeed evidence for a responsive behaviour of political parties. However, one drawback of such research designs is that the number of observations is relatively small and determined by the sources which provide information on the policy profile of parties over time. If a policy position of a party is derived from election manifestos, then the changes in the parties’ position are based on documents published, on average, every fourth year, so that information cannot be covered on what happened during a legislative period. The latter is particularly important in times when voting behaviour is more dynamic and short-term orientated, so that parties have incentives to change their programmatic profile significantly during a legislative term or even in the weeks before election day (Baumann et al., 2021).

We focus on this challenge and propose one solution to it. By making use of party press releases (e.g. Spoon and Klüver, 2014; Gessler and Hunger, 2021), we study the issue dynamics of a relatively young right-wing populist party, the ‘Alternative for Germany’ (‘Alternative für Deutschland’, AfD), thereby aiming to contribute to the increasing amount of research on the support for right-wing populist parties and its consequences for polarisation among the society in general and for the various processes of political decision-making in particular (e.g. Mudde, 2004; Arzheimer and Berning, 2019). Although there are only three election manifestos of the AfD for federal elections available and focussing on the state level would increase the number of observations only moderately, we created a novel database that covers the full text of all AfD press releases since 2013. We find evidence that the AfD changed from a party that concentrated on economic and Eurozone policy to a political actor that stresses migration and immigration policy. Furthermore, we test if the content of the AfD press releases – as estimated from structural topic models (Grimmer, 2010) – are a coincide with the attention people provide to the respective issues. In so doing, we combine the results of the topic models with the number of daily hits of selected Wikipedia entries that are related to the respective topic of a press release. By focussing on issues related to migration and refugees, our results suggest that the AfD responded to an increasing issue attention: press releases concentrated significantly more on migration and integration issues as well as on EU financial policy following days with a high number of hits on thematically related entries in the German Wikipedia. The paper therefore contributes not only to the understanding of changes in the issue prevalence of right-wing populist parties and its determinants but also suggests that the combination of data derived from machine learning methods of content analysis with daily Wikipedia page view statistics is a fruitful approach for studying the short-term dynamics of issue attention and issue prevalence.

**Issue prevalence in party press releases**

Although parties should in general tend to stick to their policy profile in order not to irritate voters, there is the need to incorporate new issues if, for instance, exogenous events like environmental disasters, economic crises, waves of global mass migration or a pandemic like Covid-19 resulted in an increasing attention for a particular policy domain among citizens (e.g. Rovny and Whitefield, 2019). A possibility to win a specific image among voters to be considered competent on a policy issue is the continuous publication of press releases that deal with the respective issue, so that the chances increase that the media intensifies the coverage of these issues and relates the them to the respective political party (Haselmayer et al., 2017; Meyer et al., 2020). This should result in an increasing probability that voters learn about the respective party’s efforts and consider them as being competent on that particular issue, which should then increase the chance that the party maximises its vote share in upcoming elections.

The development of the right-wing populist party we focus on here, the AfD, allows for deriving more precise expectations on the party’s policy profile and its changes over time (for a general framework on authoritarian parties see, for instance, Mudde, 2004). The foundation of the AfD in 2013 was a reaction to the handling of the European financial crisis by the German government. However, the policy profile of the new party changed over time significantly, which was not only related to the decreasing saliency of the European financial crisis for voters but also because of severe intra-party conflicts. The intra-party struggles resulted in a defeat of the representatives of the moderate faction at the party convention in July 2015. This shift in the party leadership and increasing migration flows, which hit Germany in September 2015, gave the new party leadership the possibility to focus explicitly on issues like migration and immigration. Therefore, the policy profile of the AfD as mentioned in its press releases should be mainly related to European integration, economic and financial policy until the first party split in summer 2015, whereas the focus should be on migration, immigration and integration of migrants since September 2015.

We expect that these shifts in the policy profile of the AfD can be explained by an increasing interest of people in issues related to migration and integration, causing the AfD (and other parties) to change their platform to fit the needs of the changing focus of the electorate (see Gessler and Hunger, 2021). This is in particular important in case of a multi-level system like the German one in which several elections to state and local parliaments take place during a year, so that parties should continuously integrate the issues that are of importance to the citizens into their daily communication with the public. The latter should be in particular the case for the AfD, since this party and its...
representatives increasingly stressed their role as actors that oppose the current political system (see, for instance, Lehmann and Zehnter, 2022), thus clearly adopting a populist position by stating that a ‘corrupt elite’ controls the political institutions and that these politicians do not fulfil the interests of the ‘common people’ (e.g. Franzmann, 2016; Lewandowsky et al., 2016; Atzpodien, 2020). One method to signal the integration of the peoples’ interest into the party policy profile is the publication of press releases. We discuss in the following section content analysis approaches that allow for analysing what parties say in their press releases and present a new strategy of measuring the policy responsiveness of (right-wing populist) parties by focussing on the number of daily hits of Wikipedia entries that are related to the respective topic of a press release.

**Data and methods**

To test these expectations, we need not only data on the content of the AfD’s press releases and their publication date but also on the short-term issue importance among the public. We create our corpus of press releases using Quanteda (Benoit et al., 2018). To analyse the issue emphasis of the AfD on the basis of their press releases, we fit a structural topic model using the package and approach described in Roberts et al. (2019). We consider press releases the ideal data for our purpose because of the high frequency of published press releases and their postings in a gate-keeper free environment. Other alternatives with high frequency such as social media data (Sältzer, 2020) or newspaper articles (Skovsgaard and Van Dalen, 2013) are not gate-keeper free environments and may be subject to editorial discretion or posting guidelines that may bias sensitive political topics.

Our data consist of 2262 press releases collected in the spring of 2020. We collected all data back to 2016 from the current party website. However, our database covers also press releases from the now decommissioned AfD website that existed from 2013 to the end of 2015. We used the Internet Archive (https://archive.org/web/) to scrape this website, so that the years from 2013 to 2015 are also covered. We analyse the data using a structural topic model approach (see the appendix for detailed information on the estimation process). Examining overall topic proportions in Figure 1 below, we observe that several of the topics we expected to find on the basis of our theoretical account of the party development like migration issues and EU economic policy can be found in the top five present topics.

To evaluate if the AfD promptly responds in its press releases to the issues that are relevant to the public, we created a dataset – by using the pageview package (Keyes and Lewis, 2020) – that covers information on the number of daily hits of entries in the German Wikipedia that reflect the issues of European integration and of migration and integration. The focus is thus on policy areas that are of key relevance for the programmatic profile of right-wing populist parties. As the Wikipedia page hits are recorded per day and multiple press releases might be released on the same day, we aggregate the estimated topic proportions by averaging them to the daily level. The result of this calculation serves as the dependent variable in the statistical models.

We apply fractional probit regression models to test our expectations on the responsiveness of the AfD on the selected issues. We use the number of hits in the German Wikipedia on the terms ‘Euro crisis’ (‘Eurokrise’) and ‘refugee’ (‘Flüchtling’) one day and seven days before the publication of a press release as an indicator for the issue the AfD will focus on in its press release according to the estimates of the topic model. As the content of press releases should also depend on other factors, we control for the time period around the AfD party convention dates and for the period around election dates. Because of the increased media coverage on the AfD during its party conventions and in the aftermath of a parliamentary election, we should see

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**Figure 1.** Title and share of identified topics in AfD press releases, 2013 – 2019.
the AfD concentrating on its core issues like European integration policy or migration policy. To control for the general activity on the German Wikipedia, we include the number of daily hits on the main page of the German Wikipedia platform in the regression models. In addition, we consider that intra-party conflicts shaped the profile of the AfD over time, so that dummy variables for each year in the covered time span, which reaches from 2015 until 2019, are included. Press releases published in 2015 form the reference group in the regression models.

Results

Having described the methodological and empirical strategy, we first turn to our analyses of developments in topic proportions over time. We focus on four issues which reflect the ‘standard ideology’ of a right-wing populist party (Mudde, 2004, 2007): migration and refugee issues combined with border control aspects reflect both migration policy and law and order issues, while (European) financial policy and Eurozone issues are examples for international integration. We perform descriptive bivariate analyses of the average topic proportions over time aggregated at the year level for the four topics of interest. Figure 2 below shows that both the Eurozone and economic policy topics decreased in relevance over time, whereas – as expected – refugee related topics became more frequent in AfD press releases, although only significantly for the first topic related to migration issues (‘Refugees and Borders’).

Table 1. Determinants of the estimated topic share in AfD press releases, one day time lag between the number of Wikipedia hits and the publication of a press release.

<table>
<thead>
<tr>
<th></th>
<th>Model 1 (‘EU, Merkel, Refugees’)</th>
<th>Model 2 (‘Refugees &amp; borders’)</th>
<th>Model 3 (Financial Policy)</th>
<th>Model 4 (‘Eurozone’)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of hits for ‘Euro crisis’/‘refugee’ in the German Wikipedia, one day before publication of press release</td>
<td>0.098** (0.007)</td>
<td>0.078** (0.010)</td>
<td>0.139** (0.028)</td>
<td>0.186** (0.051)</td>
</tr>
<tr>
<td>Time period of AfD party convention</td>
<td>−0.521*** (0.168)</td>
<td>0.121 (0.278)</td>
<td>−0.402* (0.191)</td>
<td>−0.958** (0.341)</td>
</tr>
<tr>
<td>Time period after a federal or state election</td>
<td>−0.062 (0.136)</td>
<td>−0.163 (0.153)</td>
<td>0.048 (0.130)</td>
<td>−0.017 (0.135)</td>
</tr>
<tr>
<td>2016</td>
<td>0.980*** (0.102)</td>
<td>1.113*** (0.099)</td>
<td>0.896*** (0.112)</td>
<td>0.699*** (0.128)</td>
</tr>
<tr>
<td>2017</td>
<td>1.038*** (0.096)</td>
<td>1.226*** (0.093)</td>
<td>0.951*** (0.088)</td>
<td>0.568*** (0.129)</td>
</tr>
<tr>
<td>2018</td>
<td>0.923*** (0.115)</td>
<td>1.126*** (0.114)</td>
<td>1.138*** (0.106)</td>
<td>0.517*** (0.172)</td>
</tr>
<tr>
<td>2019</td>
<td>0.891*** (0.104)</td>
<td>1.128*** (0.114)</td>
<td>1.066*** (0.093)</td>
<td>0.484*** (0.150)</td>
</tr>
<tr>
<td>Number of daily hits on the main page of the German Wikipedia, one day before publication of press release</td>
<td>0.000 (0.000)</td>
<td>0.000 (0.000)</td>
<td>0.000** (0.000)</td>
<td>0.000** (0.000)</td>
</tr>
<tr>
<td>Constant</td>
<td>−2.797*** (0.095)</td>
<td>−3.011*** (0.120)</td>
<td>−3.222*** (0.105)</td>
<td>−3.231*** (0.153)</td>
</tr>
<tr>
<td>N</td>
<td>1645</td>
<td>1645</td>
<td>1645</td>
<td>1645</td>
</tr>
<tr>
<td>AIC</td>
<td>544.284</td>
<td>461.692</td>
<td>313.578</td>
<td>311.479</td>
</tr>
<tr>
<td>Log pseudolikelihood</td>
<td>−263.142</td>
<td>−221.846</td>
<td>−147.789</td>
<td>−146.739</td>
</tr>
</tbody>
</table>

Note: Significance levels: + = p ≤ 0.1; * = p ≤ 0.05; ** = p ≤ 0.01.
### Table 2. Determinants of the estimated topic share in AfD press releases, one week time lag between the number of Wikipedia hits and the publication of a press release.

<table>
<thead>
<tr>
<th>Model</th>
<th>Topic Proportions</th>
<th>Model 2 ('Refugees and borders')</th>
<th>Model 3 ('Financial Policy')</th>
<th>Model 4 ('Eurozone')</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of hits for ‘Euro crisis’/‘refugee’ in the German Wikipedia, one week before publication of press release</td>
<td>0.099** (0.009)</td>
<td>0.073** (0.010)</td>
<td>0.098** (0.027)</td>
</tr>
<tr>
<td></td>
<td>Time period of AfD party convention</td>
<td>-0.606** (0.168)</td>
<td>0.117 (0.297)</td>
<td>-0.481* (0.241)</td>
</tr>
<tr>
<td></td>
<td>Time period after a federal or state election</td>
<td>-0.084 (0.137)</td>
<td>-0.186 (0.151)</td>
<td>0.033 (0.126)</td>
</tr>
<tr>
<td>2016</td>
<td>0.997** (0.101)</td>
<td>1.084** (0.107)</td>
<td>0.922** (0.111)</td>
<td>0.775** (0.129)</td>
</tr>
<tr>
<td>2017</td>
<td>1.057** (0.094)</td>
<td>1.209** (0.103)</td>
<td>0.979** (0.088)</td>
<td>0.655** (0.131)</td>
</tr>
<tr>
<td>2018</td>
<td>0.942** (0.112)</td>
<td>1.140** (0.120)</td>
<td>1.219** (0.110)</td>
<td>0.589** (0.169)</td>
</tr>
<tr>
<td>2019</td>
<td>0.915** (0.100)</td>
<td>1.143** (0.124)</td>
<td>1.139** (0.097)</td>
<td>0.537** (0.145)</td>
</tr>
<tr>
<td></td>
<td>Number of daily hits on the main page of the German Wikipedia, one week before publication of press release</td>
<td>0.000** (0.000)</td>
<td>0.000** (0.000)</td>
<td>0.000** (0.000)</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>-2.823** (0.088)</td>
<td>-3.063** (0.130)</td>
<td>-3.259** (0.114)</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>1639</td>
<td>1639</td>
<td>1639</td>
</tr>
<tr>
<td></td>
<td>AIC</td>
<td>542.854</td>
<td>461.757</td>
<td>313.226</td>
</tr>
<tr>
<td></td>
<td>Log pseudolikelihood</td>
<td>-262.427</td>
<td>-221.879</td>
<td>-147.613</td>
</tr>
</tbody>
</table>

Note: Significance levels: + = $p \leq 0.1$; * = $p \leq 0.05$; ** = $p \leq 0.01$.

In the next step, we evaluate if the AfD press releases focus more on those issues in which people are increasingly interested in. The dependent variables are therefore the estimated topic proportions for the topics ‘EU and Merkel’s Role in the Refugee Crisis’, ‘Refugees and Borders’, ‘Financial Policy’ and ‘Eurozone’, while our main explanatory variables are the numbers of hits in the German Wikipedia that we selected as connected to the content of the topics: ‘Euro crisis’ (‘Eurokrise’) in case of the topics ‘Financial Policy’ as well as ‘Eurozone’, and ‘refugee’ (‘Flüchtling’) in case of the topics ‘EU and Merkel’s Role in the Refugee Crisis’ and ‘Refugees and Borders’.

Tables 1 and 2 provide the results of fractional probit regression models. The results of models 1 and 2 in Table 1 show that an AfD press release focusses significantly more on issues related to the EU and Merkel’s role in the refugee crisis as well as on refugees and border issues the higher the number of hits was on a thematically related entry in the German Wikipedia on the day before the publication of the press release. The more people viewed the entry for ‘refugee’, the more a press release of the AfD focussed on migration issues and border control. We find a similar pattern in case of the financial policy topic and the Eurozone topic (models 3 and 4 in Table 1). These results remain stable when controlling for the overall number of hits on the front page of the German Wikipedia, and when including information on time periods when the AfD is more present in the media, that is, during and after their party conventions and in the aftermath of elections. These findings imply that the AfD reacted to issue prevalence in the population in case of both refugee and EU issues. In particular refugee and immigration topics dominated public debates in Germany and were seen as one of the most important issues among voters until the beginning of the Covid-19 pandemic (e.g. Kortmann et al., 2019). European issues were, by contrast, not as salient as migration issues among German voters, but even in case of this less salient topic the AfD, which was founded by Euroskeptic politicians, has responded to public interest. These results remain largely stable when switching the time period between the issue prevalence among the public and the publication date of the press releases from one day to one week (see Table 2).

### Conclusion

The aim of this paper was not only to demonstrate that measuring the programmatic profile of parties on the basis of their daily press releases works and can help to identify changes in the parties’ policy profile in a more nuanced manner but also to shed light on the degree to which parties
react to issue prevalence among the public. In so doing, we combined the results of structural Topic models of AfD press releases with information on the number of daily hits of selected entries in the German Wikipedia. In line with previous studies, we find that topic models allow for estimating the issue profile of parties. The AfD’s focus on economic policy and the Eurozone debt crisis declined over the years in favour of immigration related issues. Furthermore, we found that the AfD took the public attention for refugee and EU financial policy issues, measured on the basis of the number of daily views of selected Wikipedia entries, into account when preparing their press releases. These results indicate that a combination of these two data sources is a fruitful approach for studying the short-term dynamics of issue attention and issue prevalence.

We should, however, note that it is of course possible that the public does not shape the issue profile of parties as stated in their press releases, but that rather the political parties impact the public’s preferences by publishing press releases. This is a question which needs to be addressed by further studies, both in a theoretical and empirical manner (see Munzert, 2015). However, the finding that – by referring to a study that covers four Austrian elections – only one third of the parties’ press releases are covered by the media (Burkart and Rüßmann, 2015) shows that the parties cannot easily influence the public agenda.

On a methodological note, we show that the party press releases seem to reflect overall changes in party issue platforms, matching what we know from other theoretical accounts and empirical examinations (Van der Velden et al., 2018). This supports the results by Grimmer (2010) who demonstrates that press releases capture the same and additional aspects of political information to a high degree as derived from, for instance, parliamentary speeches (Fernandes et al., 2021). As such, party press releases are likely an adequate and highly detailed source of information on party policy positions as has been shown for parties in other contexts (Grimmer, 2016). Changes in the parties’ policy profile might also mirror changes in party leadership, thereby showing that party press releases could possibly be a relevant source of information on internal party dynamics as well.

Our findings point in the direction that right-wing populist parties like the AfD are on key issues sensitive towards changes in the issue prevalence among the public, which we operationalised with information on daily Wikipedia hits. We consider the data provided by Wikipedia as a useful and rich source that might help to measure preferences among the public and its changes on a short-term, that is, daily basis – in contrast to, for example, surveys which are mostly conducted on a monthly, sometimes weekly basis (e.g. Munzert, 2015; Mittermeier et al., 2021; see also Herrmann and Döring, 2021, who measure the ideological profile of parties on the basis of their Wikipedia entries). However, not much is known about the characteristics of Wikipedia users and whether they are representative for all citizens, for instance, in terms of education, gender, or ideological orientation. Furthermore, there is evidence that entries on political issues like the biography of politicians are strategically edited and published on Wikipedia (Göbel and Munzert, 2018). Last, it is important to note that hit data on internet sites are affected by non-human actors such as bots crawling the internet and therefore may also be artificially inflated in systematic ways that we cannot yet assess. However, as the segmentation of media consumption between traditional and new media may impact key democratic processes (Prior, 2005), we believe that tentatively examining new possible measures of salience may be a crucial step in adapting research to new media environments. Given the substantial uptake of new media among the youth, Wikipedia may be skewed towards younger users and be more appropriate as an issue prevalence measure when examining this group. More research is needed on the quality of Wikipedia data when using it to analyse, for instance, aspects of issue attention or issue prevalence.

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ORCID iD
Marc Debus https://orcid.org/0000-0002-7151-7942
Christoffer Florczak https://orcid.org/0000-0002-9091-6666

Supplemental material
Supplemental material for this article is available online.

References


