

Alternative Media for a Populist Audience? Exploring Political and Media Use
Predictors of Exposure to Breitbart, Sputnik, and Co.

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Abstract

Alongside the recent rise of political populism, a new type of alternative media has established in past years that allegedly contribute to the distribution of the populist narrative. Using a large-scale quota survey of German Internet users ($n = 1,346$) we investigate political and media use predictors of exposure to alternative media with an affinity to populism (AMP). Results reveal substantial differences between occasional and frequent AMP users. While both groups heavily use Twitter and Facebook for political information, occasional AMP users exhibit hardly any specific political convictions (except that they feel less personally deprived than non-users). Contrary to that, frequent AMP exposure is related to higher personal relative deprivation, stronger populist attitudes and a higher likelihood to vote for the right-wing populist party *AfD*. Against this background, frequent AMP use can be interpreted as partisan selective exposure whereas occasional AMP exposure might result from incidental contact via social media platforms. These findings are discussed regarding the role of alternative and social media in the recent populism wave.

Keywords: Political Information, Alternative Media, News, Populism, Users, Germany.

**Alternative Media for a Populist Audience? Exploring Political and Media Use
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So called ‘alternative media’ possess the potential to constitute a counter-public to mainstream political discourse (Downey & Fenton, 2003). While alternative media have long lived in the shadow of scientific interest (Downing, 2003) scholars have more extensively investigated their role in processes of political opinion formation and mobilization in recent years. Research indicates that alternative media are often strongly connected with the emergence of grassroots political movements such as the Arab Spring or Hong Kong’s pro-democracy movement (Howard & Hussain, 2013; Leung & Lee, 2014). Some authors even classify alternative journalism as a form of political activism (e.g., Harcup, 2011). One reason why alternative media have been gaining momentum in recent years can be seen in the broad diffusion of the Internet that has greatly lowered the bar for establishing a news outlet (Fenton & Barassi, 2011).

Besides such technical opportunity structures, a general dissatisfaction with mainstream media is another important driver of an upsurge of alternative news providers. In recent years, a number of countries worldwide has witnessed an erosion of media trust (Newman et al., 2019, p. 21). Simultaneously, political actors that are combining political populism with a right-wing political ideology have risen (see, e.g., Inglehart & Norris, 2016). Populism’s main claim is that the will of the people should have the highest priority in political decision-making (Mudde, 2004). Studies indicate that support for a populist agenda is linked to low media trust (Fawzi, 2019) as well as stronger perceptions of mainstream media hostility (Schulz, Wirth, & Müller, 2018). Against this backdrop, it does not come as a surprise that the populist wave is as well accompanied by a number of alternative media which promote a discourse that speaks to the populist narrative.

In recent years, scholars have started to investigate how these alternative media with an affinity to populism (AMP) relate to the social media channels of populist political actors (Bachl, 2018; Haller & Holt, 2018; Holt, 2017). However, little is known about the users of AMP (but, see, Newman, Fletcher, Kalogeropoulos, Levy, & Nielsen, 2018). To clarify the role AMP might play in the promotion of political populism, it seems important to better understand which users are exposed to AMP—and why. This is the aim of the present research. It sheds light upon this question using a large quota survey of German Internet users. More specifically, we investigate whether political and media use predictors (as well as a number of covariates) can help to differentiate between occasional and frequent exposure to AMP.

What Are Alternative Media with an Affinity to Populism?

Many researchers have addressed questions of how to define and conceptualize ‘alternative media’ (see, e.g., Atton, 2002; Bailey, Cammaert, & Carpentier, 2007; Hamilton, 2000). A clear consent upon a single unequivocal definition of the term is however missing (Downing, 2003). Rather, authors have stressed different features of alternative media as defining elements, for instance their participatory potential (Fenton & Barassi, 2011; Hamilton, 2000), their political radicalism (Atton, 2002; Downing, 2003), or their societal impact as a form of journalistic activism (Downey & Fenton, 2003; Harcup, 2011). Only very recently, Holt, Figenschou and Frischlich (2019) have criticized that most of these definitions can only be applied to the context of progressive alternative media. However, in recent years, emerging news outlets with a decidedly anti-mainstream stance have often adopted rather reactionary political positions or have even been connected to spreading disinformation. Therefore, the authors suggest to use “alternative media” as a non-normative umbrella term describing, in a broader sense, all media outlets that position themselves (or are perceived as) non-hegemonic (Holt et al.,

2019). In a second step, specific subgroups of alternative media (such as AMP) can be identified.

In the German context, outlets like *Epoch Times*, *Compact* or *RT Deutsch*, harshly criticize the political elites and accuse the mainstream media to participate in an elite conspiracy against ordinary people. This is in line with the overall populist narrative. Political populism is defined as a thin-centered ideology, i.e. a rather narrow set of ideas instead of a complete worldview (Mudde, 2004; Wirth et al., 2016). At its core it argues that there is an unresolvable antagonism between the ruling societal and political elite and the pure and honest people. The latter are deemed to be the legitimate sovereign of any state. However, the people are depicted as being betrayed of their legitimate power by an elite conspiracy that spreads across all societal fields. Consequently, many populist politicians attack established news outlets as participating in the alleged elite conspiracy (Schulz, Wirth, et al., 2018). Within this setting, populist alternative news media have the possibility to fill a gap on the news market by addressing an audience which has already internalized this kind of anti-media populism. In that sense, populist coverage can be identified as a main mission of these outlets (for similar assessments see, Bachl, 2018; Benkler, Faris & Roberts, 2018; Haller & Holt, 2018; Holt, 2017; Storz, 2015).

However, systematic content analyses of AMP outlets are still lacking. Therefore, it remains unclear how exactly populism manifests itself in their discourse. Research on mainstream journalistic media has found that populism occurs as a fragmented ideology in media coverage (Müller et al., 2017). This means that different features of the populist ideology (people-centrism, anti-elitism, and demand for popular sovereignty) are not equally distributed across media outlets. Similarly, it can be assumed that different AMP outlets contain their own specific combination of populist messages. This does not need to be limited to thin populism. It has been argued that

populism in many of its real-world occasions is completed by exclusionist ideas (Jagers & Walgrave, 2007). That says that the features that comprise thin populism are replenished with ideas as to a rejection of at least one other outgroup next to the political elite. In forms of contemporary right-wing populism this outgroup is being found in migrants. Thus, (xenophobic) exclusionism within alternative media's discourse can also indicate a populist slant, if it is combined with other elements of the populist ideology such as anti-elitism or people-centrism.

Who Uses Alternative Media with an Affinity to Populism?

While only a few authors have investigated the discourse of AMP outlets (Holt, 2017) or their use as sources within the social media communication of populist political actors (Bachl, 2018; Haller & Holt, 2018), research on the audiences of AMP is even more scarce. Studies have investigated the media use of citizens with an affinity to political populism (Hameleers, Bos, & de Vreese, 2017; Schulz, 2019). Moreover, it has been shown that social media use is a significant predictor of voting for right-wing populist politicians (Groshek & Koc-Michalska, 2017). However, this research did not explicitly include AMP exposure.

First insights are offered by analyses from the *Reuters Institute Digital News Report* (Newman et al., 2018). For different countries, the study finds that users of alternative and partisan news websites tend to hold more extreme positions on the political left-right spectrum, strongly distrust established news media, and are predominantly male. For Germany in particular, also younger age was an important factor (Newman et al., 2018). These findings offer a valuable starting point for further investigations on predictors of using AMP. However, further research is necessary to clarify whether the audiences of allegedly populist alternative media do in fact have a strong relationship to political populism. The present endeavor follows this route by focusing on political predictor variables that are indicative for citizens' affinity to

populism. Moreover, we consider the additional media use preferences of AMP users that have been largely neglected thus far. Moreover, we account for potential differences between occasional and frequent users of AMP.

The reason for differentiating between occasional and frequent use resides in the important role played by SNS such as *Facebook* or *Twitter* in disseminating populist content (Alvares & Dahlgren, 2016; Ernst, Engesser, Büchel, Blassnig, & Esser, 2017; Krämer, 2017). In comparison to established news outlets AMP have the disadvantage of not being eminently known. It is thus of particular importance for them to extend their audience and make new users aware of their existence. For this purpose, SNS can be a very important tool. Users of these platforms do not only get to see the content that they actively selected but also related contents that are recommended by other users and selected by the platforms' algorithms. This increases the likelihood for an un-established news outlet to gain new users. Consequently, many alternative media heavily rely upon SNS for the distribution of their contents (Fenton & Barassi, 2011). For AMP, this means that two different groups of users with different predispositions could exist: (1) heavy users who are rather frequently exposed to the messages of one or more AMP outlets as part of their usual news routine, and (2) occasional users who stumble across information from AMP from time to time via their SNS accounts (see, Fletcher & Nielsen, 2018).

Political Predictors

Extant research points to the importance of individual cognitive predispositions, most importantly political consciousness, in predicting alternative media exposure (Downing, 2003). For instance, political attitudes have been demonstrated to be closely linked to using alternative media in a Hong Kong sample (Leung & Lee, 2014). This argument is supported by research on selective exposure according to which individuals are predominantly drawn to content that has the potential to reinforce own views

(Stroud, 2008). That way, AMP might support populist actors in gaining electoral success. Especially frequent AMP exposure could relate to voting for populist parties. To our knowledge, this relationship has not been tested empirically yet. However, research shows that passive social media exposure relates to preferences for the populist candidate Donald Trump during the 2016 U.S. presidential campaign (Groshek & Koc-Michalska, 2017). Since AMP heavily rely upon social media as a distribution platform, this can be read as a first support of our notion. In Germany, where the present study was conducted, *Alternative für Deutschland (AfD)* is the only major political party that has been unequivocally considered populist in the research literature (Lees, 2018). Notably, this party combines populist anti-elitism with a right-wing exclusionist political ideology—and so do their voters (Hansen & Olsen, 2019). Therefore, we hypothesize:

H1: Higher *AfD* vote probability will predict frequent AMP exposure.

Moreover, research has shown that there is a distinct set of ideas related to the thin populist ideology—namely anti-elitism attitudes, a preference for popular sovereignty, and a belief in the homogeneity and virtuousness of the people—that form a common attitudinal construct (Schulz, Müller, et al., 2018). These populist attitudes are an important predictor of voting for populist parties (Rooduijn, 2014; van Hauwaert & van Kessel, 2018). It seems plausible to assume that they also promote the use of AMP. As this again describes intentional rather than incidental exposure, we expect that populist attitudes can particularly be found among frequent users of AMP:

H2: Populist attitudes will predict frequent AMP exposure.

As a thin-centered ideology, populism can be enriched with left- as well as right-wing ideological components. Consequently, research has found populist attitudes in combination with both left- and right-wing political convictions among different groups of citizens (van Hauwaert & van Kessel, 2018). This supports the notion that political

populism is neither distinctly left- or right-wing as is oftentimes claimed by populist politicians and AMP alike. However, their discourse often features clear elements of either side. Consequently, Newman et al. (2018) found that in some countries exposure to AMP (such as *Breitbart*, *Infowars*, or Austrian *unzensuriert.at*) is related to a right-leaning political orientation, some outlets such as U.S. outlet *Occupy Democrats* or British *Another Angry Voice* have a left-leaning audience. However, in some countries under consideration political orientation of AMP users did not clearly differ from that of other news outlets. This leaves us with a certain ambiguity as to the role of political left-right orientation for using AMP. Therefore, we ask:

RQ1: How is political left-right orientation related to AMP exposure?

An important factor in support for populist parties and the emergence of populist attitudes seems to be the subjective perception of the current state of society. For instance, Inglehart and Norris (2016) observed a conditional effect of subjective economic insecurity on voting for populist parties that depended on authoritarianism. A particular form of societal dissatisfaction that is widely acknowledged as influential also in populism research is the feeling of relative deprivation. This construct describes a feeling of resentment and perceived lack of social recognition or resources that the self, as in individual relative deprivation, or the self's group, as in collective relative deprivation, deem to be entitled of. Different studies demonstrated that relative deprivation relates to populist attitudes, voting for populist parties (Elchardus & Spruyt, 2016; Spruyt, Keppens, & van Droogenbroeck, 2016), or also selective exposure to populist content (Hameleers, Bos & de Vreese, 2018).

Mostly, these studies have conceptualized collective, and not individual relative deprivation. This corresponds to the observation that populism as an ideology heavily employs a social identity rhetoric (Krämer, 2014; Müller et al., 2017) and that collective rather than personal relative deprivation has been found to trigger collective action

(Walker & Mann, 1987). But also individual relative deprivation was shown to explain specific, individually oriented coping strategies (e.g., Kawakami & Dion, 1995). Self-selecting into reinforcing information offered by alternative news platforms online can be regarded a passive and not necessarily collective type of behavior. AMP exposure could thus very well be an individually oriented strategy that people choose in order to cope with feelings of personal relative deprivation, especially if it is conducted in a passive manner of mere consumption. However, if users actively engaged with AMP, for instance, by commenting or sharing news items, also collective relative deprivation could explain AMP exposure. Therefore, we ask:

RQ2: How are personal and collective relative deprivation related to AMP exposure?

Media Use Predictors

Downing (2003) suggested that in order to arrive at a comprehensive understanding of alternative media's users research should not only look at factors within the users but also at the technological platforms that are being used to access news content. The study by Leung and Lee (2014) has shown that using SNS for news acquisition is a very strong predictor of alternative media exposure. However, it appears worthwhile to further differentiate this notion. A large body of research suggests that news exposure via SNS is different from other ways to access news (e.g., Costera Meijer & Groot Kormelink, 2015; Glynn, Huge, & Hoffman, 2012; Schäfer, Sülflow, & Müller, 2017). Most notably, many users are incidentally exposed to news via SNS (Fletcher & Nielsen, 2018; Valeriani & Vaccari, 2016). We have argued that such incidental exposure to AMP content via SNS could be an important explanation for occasional contact. In this case, individuals who do not have strong attitudinal bonds to AMP and their contents would receive posts by AMP from time to time through their SNS news feed, for instance because these posts were liked, commented or shared by

other users in their network. That way, SNS could help AMP to broaden their audience beyond a strongly attached core group. Consequently, we assume that:

H3: Using SNS for political information will predict occasional AMP exposure.

When it comes to differences between SNS platforms, research suggests that Twitter more frequently leads to incidental news exposure than Facebook (Fletcher & Nielsen, 2018). However, research on the distribution of populist content on SNS indicates that Facebook, rather than Twitter, is a central hub for the populist message (Ernst et al., 2017). This means that for AMP outlets Facebook could play a central role as well. Supporting this impression, populist citizens in Europe and the U.S. are more strongly using Facebook for news than non-populists (Newman et al., 2019, p. 42). Taken together, these findings do not allow for specific hypotheses as to the role played by different SNS for the distribution of AMP's content. Therefore, we ask an open-ended research question:

RQ3: Are there differences between using Facebook and Twitter for political information in predicting AMP exposure?

Moreover, research suggests that populist citizens have certain media use preferences that distinguish them from other individuals. Overall, populist citizens have a comparably high exposure to political news, especially to entertaining news content from sources such as tabloid newspapers and private television (Hameleers et al., 2017; Schulz, 2019). At the same time, they do not seem to value quality newspapers (Schulz, 2019) which is in line with anti-media populist sentiments. Contrary to that, Jakob (2010) found that alternative media users in Germany used television news less frequently than others but heavily relied upon quality print media. Therefore, we ask:

RQ4: How is using traditional news sources (quality and tabloid newspapers, public and private television) related to AMP exposure?

Method

Procedure and Sample

In order to test our hypotheses and research questions we conducted a quota survey of German Internet users in the week before the German federal election (September 24th 2017) between September 12th and September 19th 2017. Participants were recruited from an online-access panel of an ISO-certified commercial research company. Using a quota procedure for age, gender, and education the sample intended to reflect the German electorate above 18 years of age in its basic demographic characteristics. The final data set consisted of $n = 1,346$ completed interviews (age: $M = 49.92$; $SD = 15.91$; 50.7 % female; 44.7 % with the highest German school degree ‘Abitur’). Participants answered a longer questionnaire on political and societal topics within which the measures for the present study were embedded. The questionnaire was distributed among panel members via e-mail and was answered online.

Selection of AMP outlets

This study examines the case of Germany where the AMP market has been comparably large in recent years. It is important to note that in the German case the political landscape has a stronger tendency towards right-wing populism. Consequently, also many AMP outlets that are relevant to a German audience appear to feature a nationalist and right-wing exclusionist political agenda such as *Junge Freiheit* (von Nordheim, Müller, & Scheppe, 2019). However, certainly not all alternative media outlets in Germany that speak to the populist narrative clearly contain right-wing standpoints. For instance, *KenFM* basically follows an anti-elitist agenda that is often also combined with left-wing issue positions (Storz, 2015). Moreover, also Russia and U.S. based outlets such as *RT deutsch*, *Sputnik* or *Epoch Times* are relevant to a German audience which mainly seem to contain positions against German societal and political elites.

However, in lack of systematic content analyses, we had to rely on the outlet's self-descriptions and a variety of different secondary sources in order to identify AMP candidate outlets. For instance, *PI News* claims that its main topic is the manipulation of the population by traditional media and politicians (PI News, 2019). A list of outlets that we assumed to be contain populist ideas was pre-tested in a survey in April 2017. The final study was then limited to the 12 best-known outlets: *Breitbart*, *Compact*, *Epoch Times*, *Infowars*, *Junge Freiheit*, *KenFM*, *Kopp Report*, *PI News*, *RT Deutsch*, *Sezession*, *Sputnik*, and *Tichys Einblick*. While these outlets differ in many respects (e.g., funding, organizational structure, professionalism, issue agenda, age, distribution strategy), all of them offer a discourse that features elements of populist anti-elitism and people-centrism.

Measures

Exposure to AMP. Using a list-frequency technique (Andersen, de Vreese, & Albæk, 2016) we asked respondents to report their frequency of exposure to AMP. They were presented with a list of the selected AMP outlets for which they were asked to indicate whether they knew the outlets at all and if so, how frequently they were exposed to them on a scale from 0 = never to 5 = very frequently. In order to measure direct exposure through the outlets' websites (or printed versions) as well as exposure via SNS we only asked respondents to assess their frequency of exposure to the content of the respective news outlets leaving open the modalities of access to this content. The percentage of participants who stated to be exposed to the respective outlets at least very rarely ranged between 8.2 and 15.3 percent (see Table 1). The number of frequent or very frequent users ranged between 2.9 and 1.6 percent. For further analyses, answers on the different AMP outlets were collapsed in a categorical variable. If respondents answered they never used any of the selected AMP outlets they were coded 0 for this new variable (71.9 % of respondents). If they stated to use one or more outlets at least

‘very rarely’ but none of them ‘frequently’ or ‘very frequently’ they were assigned the code 1 (12.6 % of respondents). As soon as they indicated to use one or more outlets ‘frequently’ or ‘very frequently’ they were assigned the code 2 (15.5 % of respondents). This was necessary in order to test whether AMP exposure is indeed related non-linearly to some of the predictor variables under consideration.

[Table 1 about here]

AfD vote probability. The probability of voting for right-wing populist party AfD was assessed using a single item that was embedded in a list of all major German parties. Individuals were asked to indicate the likelihood of voting for the party in the upcoming German national election. Answers were given on a seven-step scale from 1 = very unlikely to 7 = very likely ($M = 2.24$; $SD = 2.11$).

Populist attitudes. Populist attitudes were assessed using an established three-dimensional 12-item inventory by Schulz, Müller, et al. (2018). The scale includes four items for each of the three sub-dimensions anti-elitism (e.g., ‘MPs in Parliament very quickly lose touch with ordinary people.’), demand for popular sovereignty (e.g., ‘The people should be asked whenever important decisions are taken.’), and belief in a homogenous and virtuous people (e.g., ‘Ordinary people share the same values and interests.’; for a full list of items, see Appendix 1). Answers were given on a seven-point scale from 1 = do not agree at all to 7 = fully agree. For further analyses, a mean index was calculated from the 12 items ($M = 4.86$; $SD = 1.12$; Cronbach’s $\alpha = .89$).

Personal and collective relative deprivation. These constructs were measured with three items each (for a full list of items, see Appendix 1). Drawing from Elchardus and Spruyt (2016), the items for personal relative deprivation estimated the perceived personal life-satisfaction in relation to the country context or in relation to a normative

judgment (e.g., ‘I, personally, never get what I in fact deserve’). The items for collective relative deprivation view the perceived situation of the in-group in the societal context (e.g., ‘Whichever way you look at it, people like me never get what they in fact deserve in this society.’). Answers were given on a seven-step scale from 1 = do not agree at all to 7 = fully agree. As the items of the two constructs have certain commonalities, we calculated a principal component analysis with varimax rotation across all items to test the bipartite factor structure. The analysis extracted two factors for personal and collective relative deprivation on which the items loaded as expected. For data analysis, items were therefore merged into two separate mean indices (personal relative deprivation: $M = 3.00$; $SD = 1.71$; Cronbach’s $\alpha = .90$; collective relative deprivation: $M = 4.33$; $SD = 1.74$; Cronbach’s $\alpha = .92$).

Media use for political information. The use of media outlets was assessed with single items using a ten-step scale. Respondents were asked to indicate whether they usually used a certain type of media never (= 1), less than once per week (= 2), once (= 3), twice (= 4), up to seven times per week (= 9), or several times each day (= 10) to receive political information. All items repeated that we were interested in usage ‘for political information’. Items for the use of Facebook ($M = 3.75$; $SD = 3.32$) and Twitter ($M = 1.94$; $SD = 2.20$) simply contained the names of the two platforms. For quality ($M = 3.72$; $SD = 2.92$) and tabloid newspapers ($M = 2.94$; $SD = 2.75$) as well as for public ($M = 4.81$; $SD = 3.13$) and private television ($M = 6.56$; $SD = 3.07$) the items briefly illustrated which type of media was meant using examples (e.g., ‘How often do you use so called quality newspapers or their websites for political information (e.g., FAZ/faz.net, Süddeutsche Zeitung, ...)?’).

Covariates. For control purposes, a number of well-established political and socio-demographic constructs has additionally been measured. First, political orientation on the left-right axis was assessed with a single-item measure on a scale

from 1 = left to 10 = right ($M = 5.14$; $SD = 2.00$). These answers were re-coded into a five-step political extremism variable ($M = 2.08$; $SD = 1.27$) where 1 indicates the lowest level of extremism (values 5 and 6 on the original scale) and 5 the highest (values 1 and 10 on the original scale). Moreover, we measured political interest using three items (e.g., ‘I get informed about politics on a daily basis’). Answers were given on the same seven-point scale that was used for populist attitudes. Again, a mean index was calculated for further analysis ($M = 4.91$; $SD = 1.64$; Cronbach’s $\alpha = .87$). Next to age ($M = 49.92$; $SD = 15.91$) and gender (50.7 % female) also formal education was assessed. Participants selected their highest educational degree from a list of four options (no or lowest German secondary degree ‘Hauptschulabschluss’: 18.6%; medium secondary degree ‘Realschulabschluss’: 36.7%; highest secondary degree ‘Abitur’: 20.2%; college or university degree: 24.3%).

Results

In order to account for the potentially non-linear nature of relationships under consideration we used multinomial logistic regression for the categorical dependent variable exposure to AMP. Zero exposure to AMP was treated as the reference category. This leaves us with two contrasts predicting the likelihood of occasional and frequent exposure to AMP in comparison to zero exposure (see Tables 2a & b). Before being entered into the regression model all (quasi-)metric variables were z-standardized in order to increase comparability of effect sizes. After standardization, odd’s ratio values indicate the increase or decrease in likelihood of belonging to the dependent group for an increase of one standard deviation from the mean of the predictor variable.

[Tables 2a & b about here]

Results indicate that among the political predictors only personal relative deprivation significantly relates to occasional AMP exposure. However, the relationship is negative indicating that occasional AMP users feel less personally deprived than non-users. For frequent AMP exposure, a different picture emerges. Frequent AMP exposure is related to higher *AfD* vote probability (supporting H1), higher populist attitudes (supporting H2), and higher personal relative deprivation. Political orientation and collective relative deprivation do not significantly relate to neither occasional nor frequent AMP exposure.

H3 predicted that SNS use for political information relates to occasional AMP exposure. Essentially, results support this assumption. The use of Facebook as well as Twitter for political information are both comparably strong predictors of occasional AMP use. However, this is also true for frequent exposure to AMP. Differences between the two SNS can only be found in their relative importance. While occasional exposure more strongly relates to Facebook usage, frequent AMP users more heavily rely upon Twitter. Using traditional media outlets for political information is unrelated to occasional AMP exposure. However, frequent AMP users use quality newspapers more often for political information than the contrast group of non-users. For private and public television as well as tabloid newspapers, no patterns are observed.

Concerning, the covariates, male gender and lower age consistently predict occasional as well as frequent AMP exposure. However, age has a distinctly stronger relationship with occasional than with frequent exposure. When it comes to formal education individuals with no or the lowest German school degree ('Hauptschulabschluss') were used as the reference category. In comparison to this group no other school degree significantly predicts occasional AMP exposure. However, both the group with the highest school degree 'Abitur' and the group with a university degree have a significantly higher likelihood of frequent AMP exposure.

Political left-right orientation, political extremism, and political interest turn out to be unrelated to AMP exposure.

Discussion

The present research has explored political and media use predictors of frequent and occasional exposure to alternative media with an affinity to populism (AMP) for political information. In doing so, this study is one of the rare contributions to the research literature on users of alternative media. With the continuous rise of political populism across the globe, alternative media which promote this thin-centered ideology are likely to experience increased attention from political communication research in the future (see, e.g., Bachl, 2018; Haller & Holt, 2018; Holt, 2017). The present research is able to provide insights into the audiences of AMP. More specifically, using a quota survey of German Internet users we have investigated how occasional and frequent AMP users differ from non-users in Germany. In line with our assumptions, the empirical results describe two different user groups.

Occasional users of AMP can hardly be characterized by a specific political leaning. Although the data reveal some tendencies towards populist attitudes and voting for *AfD*, these relationships are too small to reach statistical significance. Personal relative deprivation which has been linked to an affinity to political populism (Elchardus & Spruyt, 2016; Hameleers et al., 2018; Spruyt et al., 2016) was even negatively associated with occasional AMP exposure. Instead, occasional exposure to AMP was strongly related to using social networking sites (SNS) for political information. Both Facebook and Twitter use were important predictors of occasional AMP exposure. Moreover, younger age, which is an important factor in using social media for political information (Newman et al. 2018), was a much more powerful predictor for occasional than for frequent AMP exposure.

These findings can be interpreted in a way that occasional users of AMP are probably not intentionally seeking alternative political information with a populist slant. Rather, they could be incidentally exposed to such content via their SNS accounts as other users in their virtual social surroundings share, like, or comment the respective content. This stresses the notion that SNS as a technology could have helped populism gain momentum. More specifically, SNS seem to provide AMP outlets with access to parts of the audience that are not necessarily interested in their content by political conviction. This seems to be especially true for younger, male individuals who, as judged by our results, have a higher likelihood of occasionally using AMP. In the long run, occasional AMP exposure via SNS could therefore help increase the potential voter bases of populist parties and contribute to a populist societal polarization (Müller, et al., 2017).

For frequent exposure to AMP, political predictors play a crucial role. *AfD* vote probability, populist attitudes, and personal relative deprivation were all related to frequent AMP exposure with *AfD* vote probability being one of the strongest among all predictors in the model. This speaks for frequent AMP use being a case of partisan selective exposure (Stroud, 2008) and indicates a strong link between AMP and the recent success of *AfD* in Germany. Different to voting for populist parties, frequent AMP exposure seems to be triggered by individualized feelings of societal ostracism rather than collective deprivation. This could be read as a hint that different to other, more participatory types of alternative media AMP might not construct a sense of collective action among its frequent users. However, additional research is necessary to shed more light upon this.

When it comes to their media diet, the data indicated that just as occasional AMP users also frequent users heavily rely upon SNS for political information. SNS seem to play an important role for any kind of AMP exposure. Besides, the media diet

of frequent AMP users also differed from non-users in a way that they more frequently read quality newspapers. This varies from what is known about populist citizens' media use in general, which is coined by a strong affinity to entertaining political content from tabloids and private television stations (Hameleers et al., 2017; Schulz, 2019).

Moreover, while populist citizens in general are older and have a lower formal education than non-populists, frequent AMP users were younger and better educated in this study.

One could now argue that different individuals within the sample are responsible for the different significant results. The significant results for education and quality newspaper use do not necessarily mean that the same individuals also agree with the populist ideology and vote for *AfD*. Instead, the AMP use of well-educated individuals could also be a case of intentional cross-cutting exposure for monitoring purposes. However, while a group of well-educated but not necessarily populist AMP users is likely to exist, it probably exists in small numbers. The quite robust relationships between frequent AMP use and education as well as quality newspaper use suggest that also among truly populist AMP frequent users, education and quality newspaper use are higher than average. This would then indicate that frequent AMP users are a well-educated and information-oriented sub-group among populist citizens. In order to ultimately clarify this and differentiate between different user groups more insights into frequent AMP users underlying motives would be necessary.

Limitations and Future Research

There are, of course, limitations to the present study. First, we have only measured AMP exposure but not users' motives or evaluations of AMP content. Future research should use these variables to distinguish between different groups among the frequent AMP audience. This could help clarify whether populist users are simply accompanied by non-populist but highly educated users who read AMP for monitoring

purposes or whether frequent AMP users are in fact a well-educated and information-oriented subgroup among populist citizens.

Second, we rely upon cross-sectional data for this study. The present design is not able to establish causality between AMP exposure and the predictor variables under consideration. It can for instance be expected that frequent AMP users are not only drawn to AMP because they hold strong populist attitudes but, vice versa, their populist attitudes might become stronger as a consequence of their frequent AMP exposure. The same applies for all other political as well as media use variables. Future studies using experimental or longitudinal designs will thus have to further explore the dynamics between AMP selection and effects.

Third, our findings are limited to Germany, a country where the AMP landscape has witnessed increasing audience attention in recent years alongside the growing success of the right-wing populist party *AfD*. In different national settings with varying media and political landscapes AMP users might be characterized by other attributes than in Germany. This calls for a replication of the present research in other national settings or with an internationally comparative perspective.

Fourth, we relied upon self-reported media use to determine frequent and occasional AMP users. Measuring media exposure via self-reports is very common in political communication research, yet, it can be afflicted with over-reporting bias (e.g., Prior, 2009). However, for AMP exposure this could be different. AMP users might be aware of the fact that they constitute a minority among the media audience with views that are often discussed as breaking the norm (Herkman, 2015). Thus, there could also be a social desirability bias that leads to under- rather than over-reporting of AMP exposure. This question should be addressed by future methodological research that compares self-reports of AMP exposure with users' log-file data.

Finally, for the present research we had to classify media outlets as featuring a populist slant based on previous analysis and traces of information from different sources. There is yet no systematic content analysis of the German alternative media landscape that would allow for an unequivocal classification of outlets. This is an urgent gap in the research landscape, not only for Germany but also for many other countries. It could be argued that using “AMP” as a label downplays the strong exclusionist and nationalist agenda of some of the outlets under consideration. However, a clear right-wing stance cannot necessarily be found among all AMP that were studied in this article. Nevertheless, this should not lead to neglecting the differences between more and less right-wing extremist AMP outlets.

Conclusion

Despite these limitations, the present research has demonstrated that AMP are an important factor in the current political communication landscape and that studying their users contributes to explain the recent success of political populism. Our results indicated that almost a third of German Internet users is regularly exposed to at least one AMP outlet and that SNS use for political information increases the likelihood for this. Furthermore, we found that frequent AMP users feel individually, but not collectively deprived by society, hold stronger populist attitudes, and have a high likelihood of voting for right-wing populist *AfD*. Interestingly, no such patterns could be observed for occasional AMP users who even reported less personal relative deprivation than non-users.

Taken together, these findings suggest that (1.) AMP are important information sources for individuals with strong populist convictions and (2.) SNS might help them gain attention beyond this core group. This adds to a large body of research stressing the importance of social media for the recent wave of populism across the globe (Alvares & Dahlgren, 2016; Ernst et al., 2017; Krämer, 2017). Not only do SNS provide populist

leaders with a direct communication channel to the electorate they also pave the way for accompanying alternative media outlets which support the populist message with a seemingly independent voice. This calls for future research on AMP, its audiences, and its relations to SNS and political populism.

References

- Alvares, C., & Dahlgren, P. (2016). Populism, extremism and media: Mapping an uncertain terrain. *European Journal of Communication*, 31(1), 46–57.
<https://doi.org/10.1177/0267323115614485>
- Andersen, K., de Vreese, C. H., & Albæk, E. (2016). Measuring media diet in a high-choice environment – Testing the list-frequency technique. *Communication Methods and Measures*, 10(2–3), 81–98.
<https://doi.org/10.1080/19312458.2016.1150973>
- Atton, C. (2002). *Alternative Media*. London: Sage.
- Bachl, M. (2018). (Alternative) media sources in AfD-centered Facebook discussions. *SC/M - Studies in Communication and Media*, 7(2), 128–142.
<https://doi.org/10.5771/2192-4007-2018-2-128>
- Bailey, O. G., Cammaert, B., & Carpentier, N. (2007). *Understanding Alternative Media*. Maidenhead: Open University Press.
- Benkler, Y., Faris, R., & Roberts, H. (2018). *Network Propaganda: Manipulation, Disinformation, and Radicalization in American Politics*. Oxford: Oxford University Press.
- Costera Meijer, I., & Groot Kormelink, T. (2015). Checking, sharing, clicking and linking. Changing patterns of news use between 2004 and 2014. *Digital Journalism*, 3(5), 664–679. <https://doi.org/10.1080/21670811.2014.937149>
- Downey, J., & Fenton, N. (2003). New media, counter publicity and the public sphere. *New Media & Society*, 5(2), 185–202.
<https://doi.org/10.1177/1461444803005002003>
- Downing, J. D. H. (2003). Audiences and readers of alternative media: The absent lure of the virtually unknown. *Media, Culture & Society*, 25(5), 625–645.
<https://doi.org/10.1177/01634437030255004>

- Elchardus, M., & Spruyt, B. (2016). Populism, persistent republicanism and declinism: An empirical analysis of populism as a thin ideology. *Government and Opposition*, 51(1), 111–133. <https://doi.org/10.1017/gov.2014.27>
- Ernst, N., Engesser, S., Büchel, F., Blassnig, S., & Esser, F. (2017). Extreme parties and populism: An analysis of Facebook and Twitter across six countries. *Information, Communication & Society*, 20(9), 1347–1364. <https://doi.org/10.1080/1369118X.2017.1329333>
- Fawzi, N. (2019). Untrustworthy news and the media as “enemy of the people?” How a populist worldview shapes recipients’ attitudes toward the media. *The International Journal of Press/Politics*, 24(2), 146–164. <https://doi.org/10.1177/1940161218811981>
- Fenton, N., & Barassi, V. (2011). Alternative media and social networking sites: The politics of individuation and political participation. *The Communication Review*, 14, 179–196. <https://doi.org/10.1080/10714421.2011.597245>
- Fletcher, R., & Nielsen, R. K. (2018). Are people incidentally exposed to news on social media? A comparative analysis. *New Media & Society*, 20(7), 2450–2468. <https://doi.org/10.1177/1461444817724170>
- Glynn, C. J., Huge, M. E., & Hoffman, L. H. (2012). All the news that’s fit to post: A profile of news use on social networking sites. *Computers in Human Behavior*, 28(1), 113–119. <https://doi.org/10.1016/j.chb.2011.08.017>
- Groshek, J., & Koc-Michalska, K. (2017). Helping populism win? Social media use, filter bubbles, and support for populist presidential candidates in the 2016 US election campaign. *Information, Communication & Society*, 20(9), 1389–1407. <https://doi.org/10.1080/1369118X.2017.1329334>

- Haller, A., & Holt, K. (2018). Paradoxical populism: How PEGIDA relates to mainstream and alternative media. *Information, Communication & Society*.
<https://doi.org/10.1080/1369118X.2018.1449882>
- Hameleers, M., Bos, L., & de Vreese, C. H. (2017). The appeal of media populism: The media preferences of citizens with populist attitudes. *Mass Communication and Society*, 20(4), 481–504. <https://doi.org/10.1080/15205436.2017.1291817>
- Hameleers M., Bos, L., & de Vreese, C. H. (2018). Selective exposure to populist communication: How attitudinal congruence drives the effects of populist attributions of blame. *Journal of Communication*, 68(1), 51–74.
<https://doi.org/10.1093/joc/jqx001>
- Hamilton, J. (2000). Alternative media: Conceptual difficulties, critical possibilities. *Journal of Communication Inquiry*, 24(4), 357–378.
<https://doi.org/10.1177/0196859900024004002>
- Hansen, M. A., & Olsen, J. (2019). Flesh of the same flesh: A study of voters for the Alternative for Germany (AfD) in the 2017 federal election. *German Politics*, 28(1), 1–19. <https://doi.org/10.1080/09644008.2018.1509312>
- Harcup, T. (2011). Alternative journalism as active citizenship. *Journalism: Theory, Practice & Criticism*, 12(1), 15–31. <https://doi.org/10.1177/1464884910385191>
- Herkman, J. (2015). The life cycle model and press coverage of Nordic populist parties. *Journalism Studies*, 18, 430–448.
<https://doi.org/10.1080/1461670X.2015.1066231>
- Holt, K. (2017). Completely Different or Versions of the Same? A Comparison of Mainstream Media (MSM) and Immigration-Critical Alternative Media (ICAM) in Sweden. Presented at the 67th Annual ICA Conference, San Diego, CA.

- Holt, K., Figenschou, T. U., & Frischlich, L. (2019). Key dimensions of alternative news media. *Digital Journalism*.
<https://doi.org/10.1080/21670811.2019.1625715>
- Howard, P. N., & Hussain, M. M. (2013). *Democracy's Fourth Wave? Digital Media and the Arab Spring*. Oxford: Oxford University Press.
- Inglehart, R., & Norris, P. (2016). Trump, Brexit, and the rise of populism: Economic have-nots and cultural backlash. *SSRN*. <https://doi.org/10.2139/ssrn.2818659>
- Jacob, N. G. E. (2010). No alternatives? The relationship between perceived media dependency, use of alternative information sources, and general trust in mass media. *International Journal of Communication*, 4, 589–606.
- Jagers, J., & Walgrave, S. (2007). Populism as political communication style: An empirical study of political parties' discourse in Belgium. *European Journal of Political Research*, 46(3), 319–345. <https://doi.org/10.1111/j.1475-6765.2006.00690.x>
- Kawakami, K., & Dion, K. L. (1995). Social identity and affect as determinants of collective action: Toward an integration of relative deprivation and social identity theories. *Theory & Psychology*, 5(4), 551–577.
<https://doi.org/10.1177/0959354395054005>
- Krämer, B. (2014). Media populism: A conceptual clarification and some theses on its effects. *Communication Theory*, 24(1), 42–60.
<https://doi.org/10.1111/comt.12029>
- Krämer, B. (2017). Populist online practices: The function of the Internet in right-wing populism. *Information, Communication & Society*, 20(9), 1293–1309.
<https://doi.org/10.1080/1369118x.2017.1328520>

- Lees, C. (2018). The 'Alternative for Germany': The rise of right-wing populism at the heart of Europe. *Politics*, 38(3), 295–310.
<https://doi.org/10.1177/0263395718777718>
- Leung, D. K. K., & Lee, F. L. F. (2014). Cultivating an active online counterpublic: Examining usage and political impact of Internet alternative media. *The International Journal of Press/Politics*, 19(3), 340–359.
<https://doi.org/10.1177/1940161214530787>
- Mudde, C. (2004). The populist zeitgeist. *Government and Opposition*, 39(4), 542–563.
<https://doi.org/10.1111/j.1477-7053.2004.00135.x>
- Müller, P., Schemer, C., Wettstein, M., Schulz, A., Wirz, D. S., Engesser, S., & Wirth, W. (2017). The polarizing impact of news coverage on populist attitudes in the public: Evidence from a panel study in four European democracies. *Journal of Communication*, 67(6), 968–992. <https://doi.org/10.1111/jcom.12337>
- Newman, N., Fletcher, R., Kalogeropoulos, A., Levy, D. A. L., & Nielsen, R. K. (2018). *Reuters Institute Digital News Report 2018*. Oxford: Reuters Institute for the Study of Journalism.
- Newman, N., Fletcher, R., Kalogeropoulos, A., & Nielsen, R. K. (2019). *Reuters Institute Digital News Report 2019*. Oxford: Reuters Institute for the Study of Journalism.
- PI News (2019). *Leitlinien*. Retrieved from <http://www.pi-news.net/leitlinien/>
- Prior, M. (2009). Improving media effects research through better measurement of news exposure. *The Journal of Politics*, 71(3), 893–908.
<https://doi.org/10.1017/S0022381609090781>
- Rooduijn, M. (2014). Vox populismus: A populist radical right attitude among the public? *Nations and Nationalism*, 20(1), 80–92.
<https://doi.org/10.1111/nana.12054>

- Schäfer, S., Sülflow, M., & Müller, P. (2017). The special taste of snack news: An application of niche theory to understand the appeal of Facebook as source for political news. *First Monday*, 22(4). <https://doi.org/10.5210/fm.v22i4.7431>
- Schulz, A. (2019). Where populist citizens get the news: An investigation of news audience polarization along populist attitudes in 11 countries. *Communication Monographs*, 86(1), 88–111. <https://doi.org/10.1080/03637751.2018.1508876>
- Schulz, A., Müller, P., Schemer, C., Wirz, D. S., Wettstein, M., & Wirth, W. (2018). Measuring populist attitudes on three dimensions. *International Journal of Public Opinion Research*, 30(2), 316–326. <https://doi.org/10.1093/ijpor/edw037>
- Schulz, A., Wirth, W., & Müller, P. (2018). We are the people and you are fake news: A social identity approach to populist citizens' false consensus and hostile media perceptions. *Communication Research*.
<https://doi.org/10.1177/0093650218794854>
- Spruyt, B., Keppens, G., & van Droogenbroeck, F. (2016). Who supports populism and what attracts people to it? *Political Research Quarterly*, 69(2), 335–346.
<https://doi.org/10.1177/1065912916639138>
- Storz, W. (2015). *'Querfront' – Karriere eines politisch-publizistischen Netzwerks*. Frankfurt a. M.: Otto Brenner Stiftung.
- Stroud, N. J. (2008). Media use and political predispositions: Revisiting the concept of selective exposure. *Political Behavior*, 30(3), 341–366.
<https://doi.org/10.1007/s11109-007-9050-9>
- Valeriani, A., & Vaccari, C. (2016). Accidental exposure to politics on social media as online participation equalizer in Germany, Italy, and the United Kingdom. *New Media & Society*, 18(9), 1857–1874. <https://doi.org/10.1177/1461444815616223>
- van Hauwaert, S. M., & van Kessel, S. (2018). Beyond protest and discontent: A cross-national analysis of the effect of populist attitudes and issue positions on

populist party support. *European Journal of Political Research*, 57(1), 68–92.

<https://doi.org/10.1111/1475-6765.12216>

von Nordheim, G., Müller, H., & Scheppe, M. (2019). Young, free and biased: A comparison of mainstream and right-wing media coverage of the 2015–16 refugee crisis in German newspapers. *Journal of Alternative and Community Media*, 4(1), 38–56.

Walker, L., & Mann, L. (1987). Unemployment, relative deprivation, and social protest. *Personality and Social Psychology Bulletin*, 13(2), 275–283.

<https://doi.org/10.1177/0146167287132012>

Wirth, W., Esser, F., Wettstein, M., Engesser, S., Wirz, D., Schulz, A., ... Müller, P. (2016). *The Appeal of Populist Ideas, Strategies and Styles: A Theoretical Model and Research Design for Analyzing Populist Political Communication* (NCCR Democracy Working Paper No. 88). Retrieved from: <http://www.nccr-democracy.uzh.ch/publications/workingpaper/pdf/wp88.pdf>. Zurich: NCCR Democracy

Tables

Table 1

Descriptive Results for AMP Exposure

Outlet	Do not know the outlet	Know, but never use the outlet	Use the outlet at least 'very rarely'
Breitbart	954 (70.9%)	261 (19.4%)	131 (9.6%)
Compact	947 (70.4%)	193 (14.3%)	206 (15.3%)
Epoch Times	1,119 (83.1%)	94 (7.0%)	133 (9.8%)
Infowars	1,135 (84.3%)	86 (6.4%)	125 (9.3%)
Junge Freiheit	1,014 (75.3%)	174 (12.9%)	158 (11.7%)
KenFM	1,143 (84.9%)	83 (6.2%)	120 (8.9%)
Kopp Online	1,050 (78.0%)	129 (9.5%)	167 (12.4%)
PI News	1,087 (80.8%)	110 (8.2%)	149 (11.1%)
RT deutsch	1,013 (75.3%)	152 (11.3%)	181 (13.4%)
Sezession	1,165 (86.6%)	70 (5.2%)	111 (8.2%)
Sputnik	864 (64.2%)	281 (20.9%)	201 (14.9%)
Tichy's Einblick	1,133 (84.2%)	76 (5.6%)	137 (10.2%)

Note: $n = 1,346$. Values are absolute frequencies with relative frequencies in parentheses.

Table 2a

Multinomial Logistic Regression Model Explaining Occasional AMP Exposure

	<i>B (SE)</i>	95 % CI for Odds Ratio		
		Lower	e^B	Upper
Intercept	-2.04 (0.24)***			
<u>Political predictors</u>				
<i>AfD</i> vote probability	0.19 (0.11)	0.98	1.21	1.50
Populist attitudes	-0.01 (0.11)	0.80	0.99	1.23
Personal relative deprivation	-0.25 (0.12)*	0.62	0.78	0.99
Collective relative deprivation	0.06 (0.13)	0.84	1.07	1.36
<u>Media use predictors</u>				
Tabloid newspapers	0.09 (0.10)	0.90	1.09	1.32
Quality newspapers	0.13 (0.10)	0.94	1.14	1.39
Private television	-0.08 (0.10)	0.75	0.92	1.13
Public television	0.01 (0.11)	0.81	1.00	1.23
Facebook	0.38 (0.09)***	1.22	1.47	1.76
Twitter	0.24 (0.09)**	1.07	1.27	1.51
<u>Covariates</u>				
Political left-right orientation	-0.08 (0.10)	0.75	0.92	1.13
Political extremism	0.01 (0.10)	0.84	1.01	1.21
Political interest	0.17 (0.11)	0.95	1.18	1.48
Age	-0.41 (0.10)***	0.55	0.67	0.82
Formal education (= university vs. lowest school degree)	0.12 (0.28)	0.65	1.13	1.99
Formal education (=Abitur vs. lowest school degree)	-0.22 (0.30)	0.45	0.80	1.43
Formal education (= middle vs. lowest school degree)	-0.31 (0.26)	0.44	0.73	1.23
Gender (= male vs. female)	0.57 (0.19)**	1.23	1.77	2.54

Notes: $n = 1,346$. Cox & Snell $R^2 = .21$; Nagelkerke $R^2 = .26$. Model $\chi^2(36) = 307.54$, $p \leq .001$. * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

Table 2b

Multinomial Logistic Regression Model Explaining Frequent AMP Exposure

	<i>B (SE)</i>	95 % CI for Odds Ratio		
		Lower	e^B	Upper
Intercept	-2.55 (0.26)***			
<u>Political predictors</u>				
Populist attitudes	0.24 (0.11)*	1.02	1.27	1.59
A/D vote probability	0.57 (0.09)***	1.48	1.78	2.13
Personal relative deprivation	0.22 (0.11)*	1.00	1.25	1.55
Collective relative deprivation	-0.22 (0.12)	0.63	0.81	1.03
<u>Media use predictors</u>				
Tabloid newspapers	0.10 (0.10)	0.92	1.11	1.33
Quality newspapers	0.31 (0.10)***	1.13	1.37	1.65
Private television	-0.15 (0.10)	0.71	0.86	1.06
Public television	-0.17 (0.10)	0.69	0.85	1.04
Facebook	0.30 (0.09)***	1.12	1.34	1.61
Twitter	0.43 (0.08)***	1.31	1.53	1.80
<u>Covariates</u>				
Political left-right orientation	-0.07 (0.10)	0.77	0.94	1.13
Political extremism	-0.01 (0.09)	0.84	0.99	1.18
Political interest	0.13 (0.11)	0.92	1.14	1.41
Age	-0.26 (0.10)*	0.63	0.77	0.94
Formal education (= university vs. lowest school degree)	0.85 (0.30)**	1.30	2.34	4.21
Formal education (= Abitur vs. lowest school degree)	0.63 (0.31)*	1.03	1.88	3.43
Formal education (= middle vs. lowest school degree)	0.41 (0.27)	0.89	1.51	2.57
Gender (= male vs. female)	0.39 (0.18)*	1.04	1.47	2.09

Notes: $n = 1,346$. Cox & Snell $R^2 = .21$; Nagelkerke $R^2 = .26$. Model $\chi^2(36) = 307.54$, $p \leq .001$. * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$