Navigating High-choice European Political Information Environments: A Comparative Analysis of News User Profiles and Political Knowledge

Laia Castro, David Nicolas Hopmann, Jesper Strömbäck, Frank Esser, Peter van Aelst, Claes de Vreese, Toril Aalberg, Ana S Cardenal, Nicoleta Corbu, David Nicolas Hopmann, et al.

HAL Id: hal-03225733

https://audencia.hal.science/hal-03225733

Submitted on 12 May 2021

Article

Navigating High-choice European Political Information Environments: A Comparative Analysis of News User Profiles and Political Knowledge

Laia Castro[1,2] , Jesper Strömbäck[3], Frank Esser[1],
Peter Van Aelst[4], Claes de Vreese[5], Toril Aalberg[6],
Ana S. Cardenal[7] , Nicoleta Corbu[8],
David Nicolas Hopmann[9] ,
Karolina Koc-Michalska[10,11], Jörg Matthes[12],
Christian Schemer[13], Tamir Sheafer[14],
Sergio Splendore[15] , James Stanyer[16],
Agnieszka Stępińska[17], Václav Štětka[16],
and Yannis Theocharis[18]

[1]University of Zurich, Zurich, Switzerland
[2]Universitat Internacional de Catalunya, Barcelona, Spain
[3]University of Gothenburg, Gothenburg, Sweden
[4]University of Antwerp, Antwerp, Belgium
[5]University of Amsterdam, Amsterdam, the Netherlands
[6]Norwegian University of Science and Technology, Trondheim, Norway
[7]Universitat Oberta de Catalunya, Barcelona, Spain
[8]National University of Political Studies and Public Administration, Bucharest, Romania
[9]University of Southern Denmark, Odense M, Denmark
[10]Audencia Business School, Nantes, France
[11]University of Silesia, Katowice, Poland
[12]University of Vienna, Vienna, Austria
[13]Johannes Gutenberg University in Mainz, Mainz, Germany
[14]Hebrew University of Jerusalem, Jerusalem, Israel
[15]Università degli Studi di Milano, Milano, Italy
[16]Loughborough University, Loughborough, UK
[17]Adam Mickiewicz University, Poznań, Poland
[18]Technical University of Munich, Munich, Germany

Corresponding Author:
Laia Castro, Division of International & Comparative Media Research, IKMZ-University of Zurich,
Andreasstrasse 15, CH-8050, Zurich, Switzerland.
Email: l.castro@ikmz.uzh.ch

Abstract

The transition from low- to high-choice media environments has had far-reaching implications for citizens' media use and its relationship with political knowledge. However, there is still a lack of comparative research on how citizens combine the usage of different media and how that is related to political knowledge. To fill this void, we use a unique cross-national survey about the online and offline media use habits of more than 28,000 individuals in 17 European countries. Our aim is to (i) profile different types of news consumers and (ii) understand how each user profile is linked to political knowledge acquisition. Our results show that five user profiles – *news minimalists, social media news users, traditionalists, online news seekers, and hyper news consumers* – can be identified, although the prevalence of these profiles varies across countries. Findings further show that both traditional and online-based news diets are correlated with higher political knowledge. However, online-based news use is more widespread in Southern Europe, where it is associated with lower levels of political knowledge than in Northern Europe. By focusing on news audiences, this study provides a comprehensive and fine-grained analysis of how contemporary European political information environments perform and contribute to an informed citizenry.

A fundamental prerequisite for well-functioning democracies is that their citizens are at least reasonably informed about politics and current affairs (Delli Carpini and Keeter 1996). This is not to say that everyone has to be an expert on all facets of politics: scholars might argue about exactly how informed citizens should be and what kind of knowledge is most important (Delli Carpini and Keeter 1996; Lupia 2016), but few would dispute the contention that an informed citizenry helps democracy perform better.

Against this background, today's *political information environments*, characterized by innumerable ways to become exposed to and produce political information, provide both new opportunities and new challenges. In this paper, political information environments are conceptualized as encompassing both the supply of news about politics and current affairs and the demand for such news and information (Van Aelst et al. 2017). A basic assumption is that the wider the supply of verified and trustworthy news about politics and current affairs that political information environments provide, and the more individuals are exposed to such news, the higher the likelihood that citizens will learn about politics and society (Aalberg and Curran 2012).

One key question in this context is how people combine the use of different types of media and how that combination is related to political knowledge. Thus far, comparative research investigating citizens' media use has been predominantly descriptive,

focusing on the use of different media types such as newspapers and television. Furthermore, virtually all comparative research about media effects on political knowledge focuses on the impact of using different media or media types (Aalberg and Curran 2012; Fraile and Iyengar 2014; Soroka et al. 2013). Neither strand of research considers that citizens increasingly use multiple media sources and that it is this combination that might ultimately matter most for what people learn.

In recent years, more in-depth research on media use has focused on investigating different *news user repertoires*, *user profiles,* or *news diets,* identifying news user repertoires such as, for example, minimalists, traditionalists, and online only (Bos et al. 2016; Edgerly 2015; Hasebrink and Domeyer 2012; Kim 2016; Strömbäck et al. 2018; Wolfsfeld et al. 2016). These studies have provided valuable evidence on media use patterns in single countries, but this approach has not yet been applied in comparative research. Hence, it is unclear to what extent these findings can be generalized to other cultural contexts or countries.

By applying an audience-oriented perspective to the study of political information environments, the purpose of this paper is hence to (1) explore and map what news user profiles can be found across European countries and (2) examine the relationship between different news user profiles and citizens' knowledge about politics and current affairs. To this end, we build on a unique cross-national survey tapping online and offline media use habits of more than 28,000 individuals across seventeen European countries. Our results indicate that both traditional and some online-based news user profiles are associated with higher political knowledge. However, online-based news use is more prevalent in Southern Europe, where it also seemingly conveys lower levels of political information. Implications of these and other findings for comparative research and the conditions of informed democracy are discussed in the conclusion.

An Audience-Oriented Perspective on European Political Information Environments

That informed citizens are key to a well-functioning democracy is well documented in the social science literature. Individuals in tune with current affairs and politics are more able to discern argument quality and political competence, are more politically involved, and are better equipped to connect their vote decisions to their interests and worldviews (Brady et al. 1995; Delli Carpini and Keeter 1996; Hochschild and Einstein 2015). While scholars might argue about exactly how informed citizens need to be and what kind of knowledge is most important (Delli Carpini and Keeter 1996; Lupia 2016), few would debate that the media is an important driver of political learning as it allows citizens to frequently monitor the political process and improve their ability to make sense of the political realm (Aalberg and Curran 2012; Althaus 2003; Dimitrova et al. 2014; Luskin 1990; McLeod et al. 1996; Soroka et al. 2013; Shehata and Strömbäck 2021).

A relevant concept in this context is the political information environment (Esser et al. 2012). While this concept has both a supply side and a demand side (Van Aelst et al. 2017), we focus here on the audience side, referring to citizens' consumption of news media and political information. From a normative standpoint, investigating people's consumption of political news is necessary to elucidate how effective different media architectures are in making available, conveying, and helping individuals process relevant information. As the argument goes, the wider the use of verified and trustworthy news about politics and current affairs, the higher the likelihood that citizens will learn about politics and competently participate in public life. Furthermore, putting audiences at the center of comparative media research provides a broader understanding of how media operates in current high-choice media environments, where media suppliers find themselves under increasing pressure to target specific audiences, and audiences' preferences have become more important predictors of the amount and quality of information that media outlets provide (Strömbäck et al. 2018).

While some studies have engaged in comparative analyses of the media supply side (Hallin and Mancini 2004; Humphreys 1996), less attention has been devoted to empirically scrutinizing how different political information environments perform from an audience-driven perspective. A few exceptions are worth mentioning. Esser et al. (2012: 252), for example, used aggregated levels of TV news viewing or newspaper circulation in a country as "structural parameters of political information environments". Similarly, Brüggemann et al. (2014) employed levels of newspaper reach to measure the *inclusiveness* of a media market (Brüggemann et al. 2014), while Shehata and Strömbäck (2011) assessed the *TV centrality* and *newspaper centrism* of media environments. Their findings show that media environments characterized by press centrism are associated with narrower information gaps between more and less educated individuals and more and less politically interested citizens (Shehata and Strömbäck 2011). Examples include the Scandinavian countries and other small media markets such as Switzerland and Austria. In such countries and in others that belong to the so-called *democratic corporatist model* (Hallin and Mancini 2004), media seem to play a more all-encompassing and equalizing role than in most Southern and Eastern European countries. This inclusive and more informative role of the media is also due to the strength and high audience share of high-quality public service news media, which has proven potential to spill-over to other media channels (Aalberg and Curran 2012; Castro-Herrero et al. 2018; Pfetsch 1996; Van der Wurff 2005). Spillovers from public to private media outlets are also attested to by the high distribution and reach of more plural, catch-all media outlets in most of these media environments (Marquis et al. 2011; Nord 2016).

A more recent strand of comparative studies has also shown country variance with respect to the use of different types of media for accessing the news. In some European countries, online news outlets and social media are now the most important sources of information, ahead of TV (Newman et al. 2019; Westlund and Ghersetti 2015). Extant research suggests that Italian, Hungarian, Romanian, and Polish users tend to follow social media for news in greater numbers than users in the United Kingdom,

Germany, Switzerland, Sweden, and Norway, where consumption of traditional media and higher subscriptions to national news brands with a long tradition of professional journalism persist (Fletcher and Nielsen 2018; Newman et al. 2019). In contrast, in Italy and Poland, negative perceptions and low trust in institutional media tend to be more widespread (Steppat et al. 2020). At the same time, research has shown that alternative media outlets and antiestablishment voices that undermine the credibility and legitimacy of mainstream and more traditional media have proliferated in recent years (Figenschou and Ihlebæk 2019; Heft et al. 2020; Ladd 2011).

While comparative research on citizens' media use has advanced over the last years, it remains predominantly descriptive and focused on the use of different media types such as newspapers or television. Such studies have not taken into account the fact that citizens increasingly engage in media and outlet mixing.

A Mix of News Media Uses

As media environments and patterns of (news) media use have become increasingly complex, scholars have realized that it is insufficient to investigate the use of individual media or media types—or the effects thereof. Consequently, a growing number of studies in recent years are using sophisticated analytical techniques to explore *the combinatory use* of different media sources and formats (Strömbäck et al. 2018: 415; Wolfsfeld et al. 2016). While the terminology varies, research in this area has found an array of personal *news repertoires* or typologies of *user profiles* or *news diets* by examining patterns of media use in Austrian, German, Swedish, Dutch, and Israeli news media markets (Bos et al. 2016; Hasebrink and Schmidt 2012; Strömbäck et al. 2018; Trilling and Schoenbach 2013; Van Cauwenberge et al. 2010; Van Rees and Van Eijck 2003; Wolfsfeld et al. 2016). These typologies span the use of traditional and online-only media, social media, as well as public service media, tabloids, and other popular formats. Wolfsfeld et al. (2016), for example, found four types of political information repertoires in Israel, which they labeled news avoiders, traditionalists, social, and eclectics. These repertories were built along a traditional-social media continuum through a series of analyses of variance. As another example, by using principal component analysis and cluster analysis, Edgerly (2015) identified six news repertoires in the United States, which she labeled news avoiders, online only, TV and print, online and liberal, conservative, and news omnivores.

More recently, Bos et al. (2016) and Strömbäck et al. (2018) used latent class analysis to identify individual news profiles in the Netherlands and Sweden, finding four and five news user repertoires, respectively. Focusing on the Netherlands, Bos et al. (2016) found a group of news minimalists, popular news consumers, users of public media, and omnivores who watch and read all sorts of news and current affairs media profusely. Strömbäck et al. (2018) identified a similar typology of users for Sweden, with minimalists, public and popular news users, as well as local news consumers and users of social media news. Notably, both studies found the largest group to be news minimalists, that is, individuals consuming little news compared to the rest of the user profiles. Against this background, the first research question (RQ1) this study

will explore is which news user profiles can be identified across the seventeen countries considered. The second research question (RQ2) asks how widespread the identified news user profiles are across different countries.

Although some of the above-mentioned studies associated different user profiles with various degrees of offline and online participation (Edgerly et al. 2018; Strömbäck et al. 2018), and levels of political knowledge (Wolfsfeld et al. 2016), thus far, there is no comparative study investigating the prevalence of different user profiles and their relationship with political knowledge. Hence, it is not clear how generalizable existing findings are with respect to the nature and implications of different user profiles.

News Use and Political Knowledge

Extant research has investigated the impact of using individual media types or specific news media content on political knowledge. These studies have scrutinized the particular role of newspaper and TV consumption, public and commercial media news, alternative media and infotainment, social media, or else selective media exposure in explaining levels of political knowledge (Aalberg and Curran 2012; Castro Herrero and Hopmann 2017; Dimitrova et al. 2014; Fraile and Iyengar 2014; Shehata and Strömbäck 2011, 2021; Skovsgaard et al. 2016; Soroka et al. 2013). As an example, previous research has shown that the use of public service broadcasting for news is positively associated with knowledge of hard news, albeit to different degrees depending on the country (see Aalberg and Curran 2012; Soroka et al. 2013). More recently, a growing number of studies have focused on the *information potential* of online and social media. Shehata and Strömbäck (2021), for example, conducted a longitudinal survey in Sweden and found that using social media for news, in contrast to online news websites and more traditional outlets, has null effects on political learning. Several other studies in different contexts have confirmed that people usually learn very little about political or societal relevant issues by following social media platforms like Facebook (Boukes 2019; Lee and Xenos 2019; van Erkel and Van Aelst 2020). Scholars have suggested multiple explanations for these findings, from the more personalized and one-sided streams of news to information overloads or simply a lack of relevant factual information on social media.

While research shows that the knowledge gains from using news media vary across news sources and media types, as mentioned above, there is no study investigating the joint implications of different constellations of news media uses on political knowledge across countries with differing opportunity structures for political information. Filling this void is important for two main reasons. First, in reality, people consume a mix of different news and news sources, and ultimately the mix should matter more than the use of specific media or media types. Second, in some countries, public service media or traditional news brands set the quality standards of news and provide more and often more ideologically diverse information (Castro-Herrero et al. 2018). As previous research has shown, where accessing high quality, diverse, and cross-cutting news is less costly, people's *agency* tends to play a weaker role in explaining news habits

and their effects than in contexts where media have less of a leveling effect and do not cut across different individual preferences to the same extent (Nir 2012; Shehata and Strömbäck 2011). This suggests it is not necessarily the case that different user profiles are related to political knowledge in the same way in different countries. Hence, a final set of research questions in this study asks what the linkage is between the identified news user profiles and political knowledge acquisition (RQ3) and whether this relationship differs across countries (RQ4).

Since this is the first comparative study aiming to identify different news profiles and their relationship with political knowledge across a wide array of European countries, it is largely exploratory. By adopting an audience-driven perspective to the study of political information environments, we will dissect European political information publics along dimensions relevant to characterize news patterns and inductively build different news repertoires. We will also examine attitudinal and demographic correlates of different media user profiles to better understand the idiosyncrasies and motivations of each news profile. Finally, we will analyze levels of political knowledge for each user profile. Taken together, this will allow us to predict how informative each of these mixes of media uses is. We will then explore how prevalent each news profile is across Europe and whether these profiles convey the same level of information across different countries.

Methods

Data

To identify and map different news user profiles and describe how they are linked to levels of political knowledge across different European information environments, we relied on the first wave of a two-wave panel survey we fielded in seventeen European countries (Austria, Belgium, Denmark, France, Germany, Greece, Hungary, Israel, Italy, the Netherlands, Norway, Poland, Romania, Spain, Sweden, Switzerland, and the United Kingdom) in December 2019. The rationale for only using the first wave is that the COVID-19 pandemic that hit the world in early 2020 unfolded between the first and the second wave, making the results for the second wave barely generalizable.[1]

The survey contains a large battery of questions about the use of different offline and online news outlets as well as political information habits and political attitudes, cognitions, and behaviors, making it particularly suitable to investigate news audiences across different political information environments. The fieldwork was conducted by Dynata, and quotas were used for age, gender, and metropolitan region. A total of 28,317 respondents completed the online survey in Wave 1 and are used for the analyses. The sample size per country ranges from 1,600 to 1,723 cases. The average age in Wave 1 was 42, and 55.4 percent of the sample were female. The sample in each country is fairly representative of the population at large, although lower-educated and older citizens are slightly underrepresented (country-by-country sample composition and representativeness available from the authors).

Variable Description and Analytical Strategy

To identify different news user profiles along theoretically relevant dimensions, we employed latent profile analysis (LPA) (Bos et al. 2016; Strömbäck et al. 2018). More specifically, we inductively defined each individual's class/profile membership by using fourteen survey items (see Table 1 for item description and question wording for each indicator). When selecting survey items, we built on and extended previous operationalizations used in the literature on repertoires of news users and news consumption. We included (1) frequency of use of different *media types*, such as TV news use, radio, and public service broadcasting for news and frequency of newspaper reading (Strömbäck et al. 2018). We also included two questions tapping (2) the frequency of use of *Internet-based news sources* and of social media for news (Newman et al. 2019; Westlund and Ghersetti 2015) and two questions tapping (3) the *number of news sources* visited, namely, the number of social platforms for news and number of news outlets used (Trilling and Schoenbach 2013). Additionally, we included two items tapping (4) particular content *genres* (Bos et al. 2016; Kim 2016), namely, the use of alternative media and infotainment. Finally, specific *news seeking patterns,* that is, (5) selective exposure, incidental news exposure, news avoidance, and exposure to nonjournalistic sources, were also added to our LPAs to account for how actively and selectively people expose themselves to political information in times of abundant media choice. By considering these patterns, our analysis resonates with more comprehensive approaches resorting to both media outlets and the nature of their content to build *ideologically-driven* news repertoires (Edgerly 2015), *partisan media diets* (Moehler and Allen 2016), or to assess audience fragmentation online (Yang et al. 2020). The later study investigated various audience divides (ideological segregations, informed users/news avoiders) to illustrate the extent to which people take advantage of current online news options. Overall, our operationalization of news user profiles accounts not only for the number and combination of *sources* citizens use "to keep up with the political world" (Wolfsfeld et al. 2016: 2099), but also the frequency of use of different formats and genres and a wide variety of news-seeking and political information habits inherent in current high-choice media environments.

The resulting news profiles were additionally regressed on socio-demographics and individual predictors to characterize in greater detail each user profile. To this end, we used mixed-effect models with restricted maximum likelihood (REML) and an adjustment for the relatively small number of clusters (countries) using the Kenward–Roger correction (Kenward and Roger 1997; McNeish and Stapleton 2016).[2] In these models, we included several variables that research has shown to have an impact on news media use. More precisely, we included political interest (responses ranging from (1) "Not at all" to (7) "Very interested") (Delli Carpini and Keeter 1996), media perceptions and attitudes such as trust in media (operationalized as an additive index of twelve to seventeen items assessing the trustworthiness of different specific national media brands), and *news-finds-me perceptions* (Miller and Krosnick 2000; Strömbäck and Shehata 2019). We operationalized news-finds-me perceptions as in Gil de Zúñiga et al.

Table 1. Survey items and question wording.

Indicator	M(SD)	Number of Items	Question Wording	Scale	Data Coding and Processing
TV news frequency	2.09 (1.23)	4ab	During a typical week, how many days do you watch news on the following channels, either on TV or online (Daily, 5–6 days a week, 3–4 days a week, 1–2 days a week, More rarely, Never)?	0–5	Average frequency of use of 2–4 news outlets per country
Radio news frequency	1.25 (1.02)	4b	During a typical week, how many days do you follow the news on the following stations, either on the radio or online (Daily, 5–6 days a week, 3–4 days a week, 1–2 days a week, More rarely, Never)?	0–5	Average frequency of use of 2–4 news outlets
Newspaper frequency	1.32 (1.14)	4	During a typical week, how many days do you read the following newspapers, either print or online (Daily, 5–6 days a week, 3–4 days a week, 1–2 days a week, More rarely, Never)?	0–5	Average frequency of use of 2–4 news outlets
Public service broadcasting (PSB)	2.03 (1.58)	1	During a typical week, how many days do you watch news on the following channels, either on TV or online (Daily, 5–6 days a week, 3–4 days a week, 1–2 days a week, More rarely, Never)?	0–5	n.a.
Social media for news frequency	3.19 (2.04)	1	During a typical week, how often do you follow news on social media (e.g., Facebook, Twitter, Instagram or Whatsapp)?	0–5	n.a.
Internet-based news sources	3.92 (1.45)	1	During a typical week, how often do you watch or read news on the Internet?	0–5	n.a.
No. of social platforms for news	1.44 (1.30)	8	Which social media, if any, provides political news that you read (Instagram, Facebook,	0–8	Count variable

Table 1. (continued)

Indicator	M(SD)	Number of Items	Question Wording	Scale	Data Coding and Processing
			Twitter, YouTube, Snapchat, WhatsApp, Messenger, Reddit)		
No. of online news outlets	3.57 (2.65)	12–17	Which of these news outlets have you visited or used in the past 30 days, if any?	0–12	Count variable
Alternative media	1.84 (1.47)	1	During the last week, how often did you use media in order to follow … News that provides alternative views on societal issues other than traditional news (Daily, 5–6 days a week, 3–4 days a week, 1–2 days a week, More rarely, Never)?	0–5	n.a.
Infotainment	1.80 (1.09)	3	How often do you watch any of the following media programs: "Political talk shows (such as Victoria Derbyshire, The Andrew Neil Show, Politics Live)"; "Comedy news (such as Have I Got News For You; Russell Howard's Good News; The Mash Report)"; "Prime-time political dramas (such as Brexit: The Uncivil War; A Very English Scandal; Coalition; The Thick of It)?"	0–3	Items recoded to dummies (different show types are aired with different frequency) and added up in an index (Cronbach's $\alpha = .63$)
Self-reported selective exposure	2.09 (1.45)	1	During the last week, how often did you use media in order to follow…News that presents societal problems in ways that correspond with my own view (Daily, 5–6 days a week, 3–4 days a week, 1–2 days a week, More rarely, Never)?	0–5	n.a.
Incidental news	3.84 (1.14)	6	People often use television, internet, the radio,	1–7	Mean value of 6 items (based on first

(continued)

Table 1. (continued)

Indicator	M(SD)	Number of Items	Question Wording	Scale	Data Coding and Processing
			or the smartphone for purposes other than to get information about politics. In the past weeks, how often did the following situations occur when you were using media for purposes other than to get political information: "I incidentally saw political information that I did not really look at"; "I stumbled upon political content but did not really engage with it"; "I skipped the political content that I came across incidentally"; "I saw political content incidentally and then looked at it more thoroughly"; "I stumbled upon political information that caught my attention"; "After I saw political information incidentally, I took a closer look".		and second level of incidental news exposure, Matthes et al. 2020; Nanz and Matthes 2020)
Nonjournalistic political information sources	1.62 (1.25)	8	When using social media, how often do you come across information about politics posted/shared by (your closest friends/your family/your colleagues/people sharing messages in line with your views/people sharing messages opposed to your views/politicians and political parties/influencers)?	0–5	Mean value of 8 items (Cronbach's α = .90)
News avoidance	1.49 (1.51)	1	In a typical week, how often do you find yourself actively trying to avoid news these days?	0–5	n.a.

Note. a: (3 items for DK & BE), b: (2 items for NO); for SE, exposure to news shows instead of TV channels was reported.

(2017).[3] Finally, we also included age, gender, and education[4] in our models as controls.

To investigate levels of knowledge among different user profiles, we used a battery of questions tapping *surveillance* political knowledge (Barabas and Jerit 2005; van Erkel and Van Aelst 2020). More specifically, we used seven multiple-choice questions capturing knowledge about both international and national affairs, and both policy-specific and actor-centric political knowledge (question wording of the items for all countries is listed in the Supplemental Material file). Using these items, we constructed an additive index with recoded binary variables of correct answers to several questions. Altogether, relating different news profiles to levels of surveillance knowledge allows us to identify the kind of political knowledge people may acquire when following information through the media and the extent to which respondents' media diets are associated with the higher recall of events and people covered in the news.

Five News User Profiles

Turning to the results, in order to explore the different kinds of news users and address RQ1, we first ran a LPA (also called latent class analysis, see Strömbäck et al. 2018 for a similar approach), which allowed us to assign individuals with similar news use patterns to the same groups. In these analyses, we used the fourteen indicators summarized in Table 1. As the respondent distribution and scale for each of these fourteen variables differed, the LPA model was estimated using Gaussian, Poisson, and logit regressions for a combination of continuous variables, counts, and ordinal variables. We then performed the LPA five times to determine which model fitted the data better. A series of model fit indices were then examined to test optimal class solution. The Bayesian information criterion, which corrects for the inclusion of predictors, showed that the five-profile solution was more parsimonious than any other model. The entropy index (which considers the predicted probability of each individual to belong to a class and indicates the extent to which each profile is homogenous and well delineated, see Bos et al. 2016) also revealed that the five-class solution was preferable as it yielded values closer to 1 (see Table A1 in the Supplemental Material file for fit indices). Similar results emerged when we performed the models with covariates such as age (results available from the authors).

Figure 1 shows the five resulting news profiles and average levels of each indicator considered in the LPA. Based on the characteristics of each profile, we have labeled them *news minimalists, social media news users, traditionalists, online news seekers, and hypernews consumers*.

The first group, news minimalists, comprises 17 percent of respondents. This group includes those who seldom consume news and use very few media outlets or platforms, if any. Compared to the other user profiles, minimalists score lowest on all the dimensions considered except news avoidance. As the coefficient plot in Figure 2 further shows, they are also the least politically interested, do not perceive they will be well-informed regardless of their actively following the news (news-finds-me perceptions)
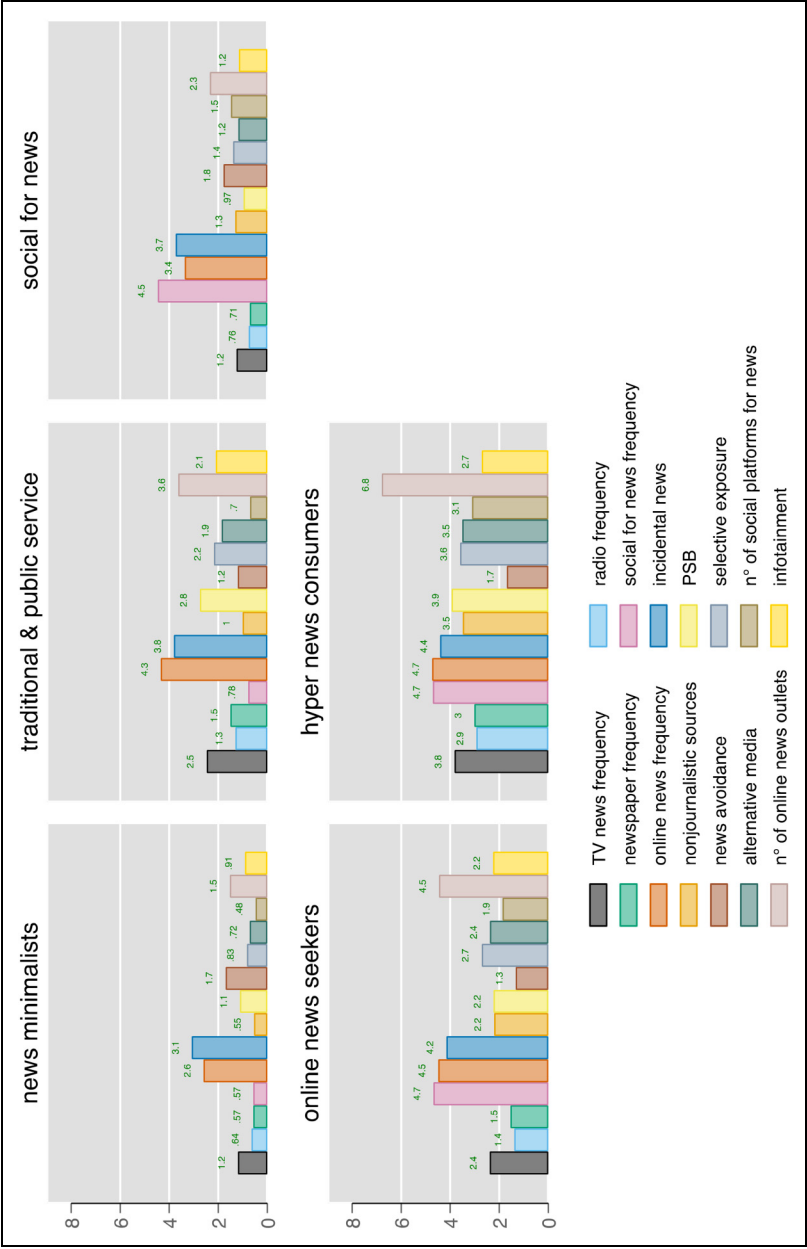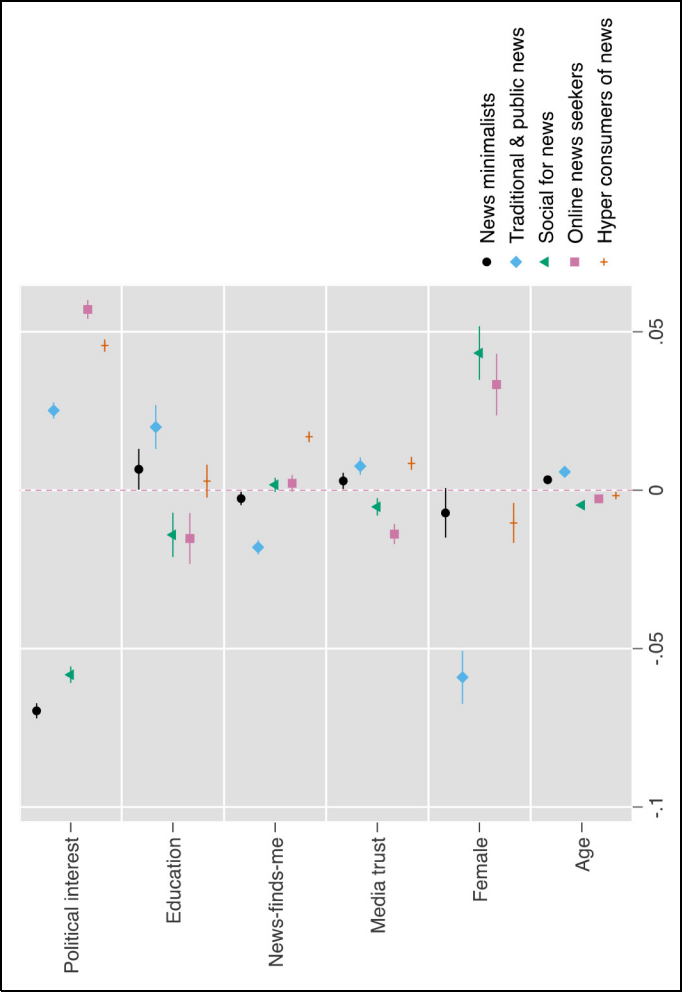
Figure 1. Five news use profiles.

Figure 2. Individual predictors of each news profile (Models 1–5, Table A2 in the Supplemental Material file).
Note. Dots represent regression coefficients and lines represent their associated 95 percent confidence intervals.

and are older and slightly more educated than the average news user (results of regression models are shown in Table A2 in the Supplemental Material file).

The second group of users mainly inform themselves through social media and consume little information beyond that. We labeled their profile social media news users, which comprises 22 percent of respondents. Individuals embedded in this profile show slightly higher levels of inadvertent news viewing than minimalists and are frequently exposed to news through social platforms such as Facebook, Twitter, or Instagram. Accordingly, they also express higher levels of news-finds-me perceptions, are younger than the average news user, and show low levels of media trust. They are furthermore the least educated and politically interested (see Figure 2).

We identified a third group of consumers as traditionalists (19 percent of the sample), representing those who prefer traditional and public service-oriented news sources. They watch TV more than the two previous profiles (supported also by higher levels of exposure to infotainment TV shows) and use traditional newspapers and radio. Additionally, they are the oldest and best educated, politically interested, trustful of the media, and barely feel that "news will find them." They are, for the most part, men.

The fourth group of individuals, online news seekers, comprising 32 percent of the sample, are also often exposed to news and tend to actively use various news outlets and online platforms (although they also score high in the use of traditional news) and are generally women. They have a richer and more sophisticated news media repertoire (high number of news outlets, diverse genres, and media types) than all the above-mentioned profiles, as they engage in higher levels of selective exposure and are more prone to seeking like-minded perspectives in political information. They are also more likely to use alternative media and nonjournalistic sources than those in the former profiles and are the most skeptical and distrustful of mass media brands.

Finally, the results show a fifth group of news users that we have labeled hyperconsumers of news. They represent 10 percent of the sample. Individuals in this group use all sorts of news outlets and platforms profusely. Accordingly, on average, they score the highest on all the indicators considered (except news avoidance) and reported using between six and seven news outlets and more than three social platforms to follow the news in the last 30 days. They are also very politically interested and trustful of the media and score higher in news-finds-me perceptions.

Mapping News User Profiles Across Seventeen European Countries

While the results above pertain to the aggregated level, a key question that previous single-country studies have not been able to address is how common different user profiles are in different countries (RQ2). Figure 3 addresses this question by showing the relative distribution of each user profile by country.

While all user profiles can be found in every country, significant country differences in the share of respondents belonging to each profile unfold.[5] We want to draw
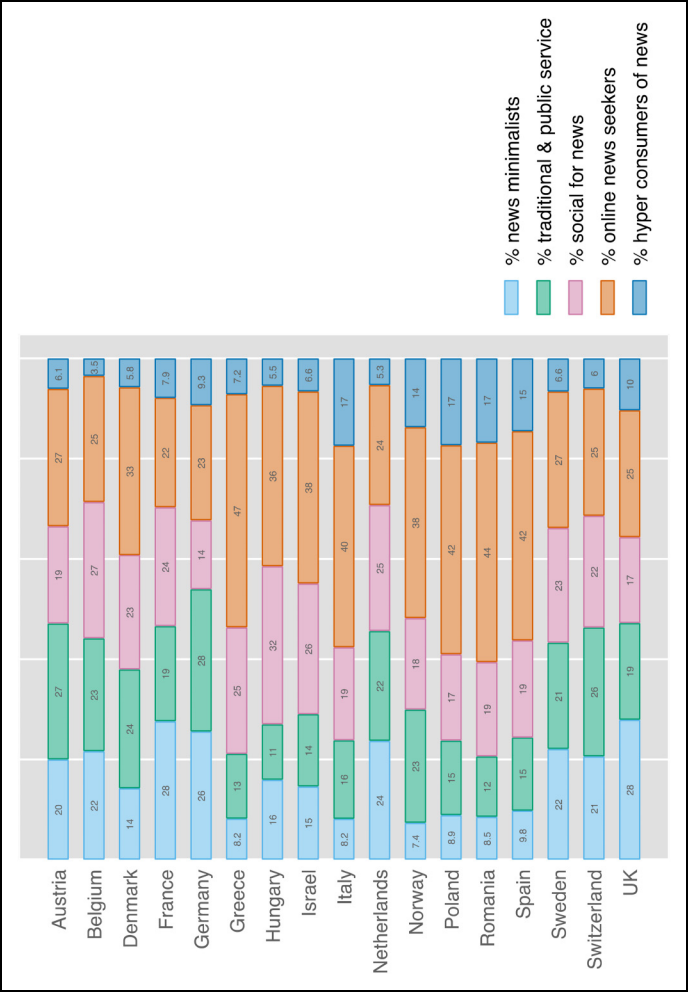
Figure 3. Distribution of news use profiles by country.

particular attention to four geographical patterns. First, the share of news minimalists is largest in those countries characterized by the highest degree of economic, social, and political globalization. This is true for Austria, Belgium, France, Germany, the Netherlands, Sweden, Switzerland, and the United Kingdom. These societies seem to have more diffused and internationally integrated cultures, economic openness, and stronger social mobility.[6] Second, the share of hyperconsumers is particularly large in those countries where the share of online news seekers is also large. This applies above all to two Southern and two Eastern countries: Italy, Spain, Poland, and Romania. In these four countries, the politically highly interested online news seekers strongly satisfy their thirst for information with internet- and social media-based media because (1) these sources are easily and cheaply available and because (2) the established media is generally less trusted due to a history of political partisanship and instrumentalization (Castro et al. 2017; Hallin and Mancini 2004; Steppat et al. 2020). Norway not only shows comparatively high levels of online news seeking and hyperconsumption of news, but also shows unusually high levels of traditional and public media use. In this vein, the largest group of traditional and public service users is indeed found in affluent Western welfare societies. Their media policies have been particularly supportive of public broadcasting (e.g., in Austria, Switzerland, Germany) and the press (e.g., in Denmark, Norway, Sweden), and their audiences have shown great loyalty to those traditional outlets that are considered national news leaders (Brüggemann et al. 2014; Shehata and Strömbäck 2014).

To more clearly visualize the geographic distribution for two theoretically relevant user groups outlined above, Figure 4 maps the average probability for individuals in each country to belong to the traditionalist user profile, while Figure 5 displays the average probability that a respondent belongs to the online news seekers profile. While higher levels of traditional news use are observed in the democratic-corporatist media systems of Germany, Austria, Switzerland, the Netherlands, and Belgium, as well as in the Scandinavian countries, online news seekers are concentrated in the polarized-pluralist countries of Southern Europe (Greece, Spain, Italy) and Central and Eastern Europe (Poland and Romania).

News User Profiles and citizens' Knowledge About Politics and Current Affairs

Moving beyond the presence and distribution of different user profiles across countries, a key question is the linkage between these news user profiles and political knowledge (RQ3) and whether this linkage differs across countries (RQ4). To investigate these relationships, we tried to proxy how much information news users belonging to different user profiles retrieve from their news use across Europe. The results are shown in Figure 6 and are based on a multilevel regression model with surveillance political knowledge as the dependent variable and membership to the five different news profiles as the main independent variables. For the sake of interpretability, in the figure,
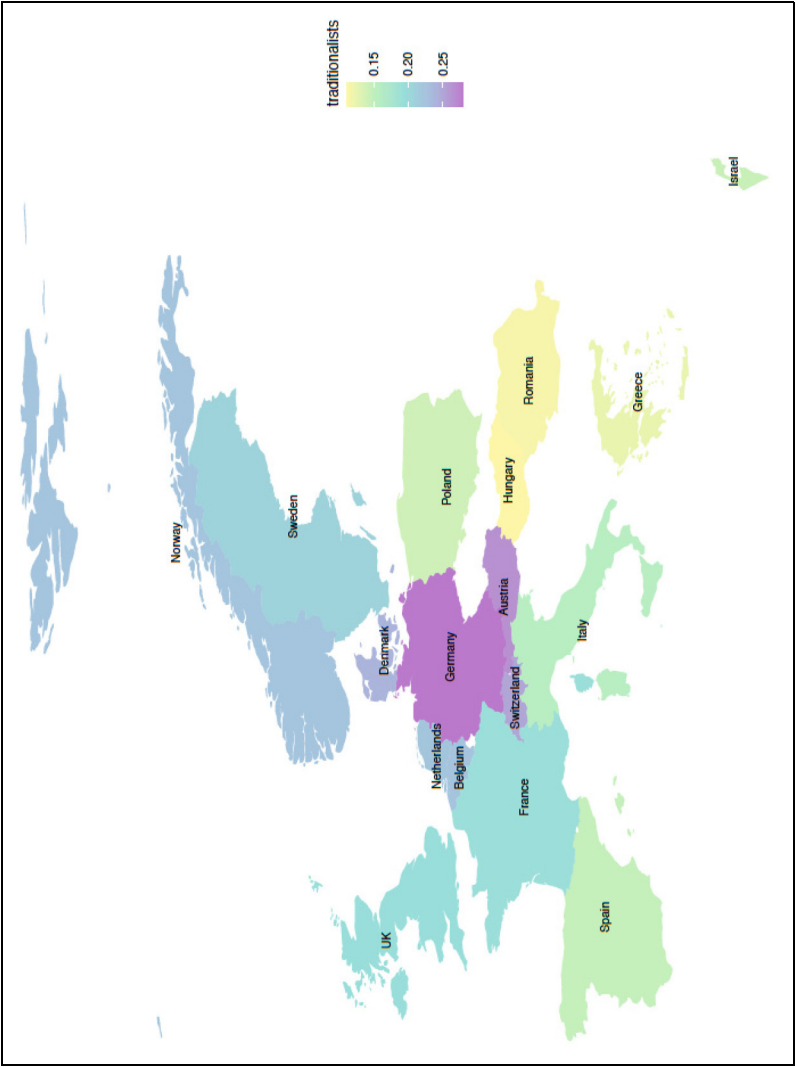
Figure 4. Spatial distribution of traditionalists across seventeen European countries.
Note. The map represents the average predicted probability of belonging to the traditional and public media profile by country (darkest-colored countries = higher scores).

Figure 5. Spatial distribution of online news seekers across Europe.

Note. The map represents the average predicted probability of belonging to the online news seekers profile by country (darkest-colored countries=higher scores).

we have plotted coefficients displaying the average marginal effects of all covariates, while the detailed results are shown in Table A3 in the Supplemental Material file.[7]

As shown in Figure 6, a key finding is that only two user profiles (traditionalists and online news seekers) are positively and consistently correlated with political knowledge compared to the rest of the user profiles (see the reference category on top of each coefficient plot). More specifically, the results show that those having a more selective and richer online news diet (online news seekers) are more likely to hold higher levels of surveillance knowledge compared to all groups of news users with the exception of those using traditional and public media, who are comparatively better informed than all the rest. Strikingly enough, the hyperconsumer of news profile shows either nonsignificant associations with political knowledge or (when compared with traditional and online news seekers) even negative correlations. We anticipate the most plausible explanation thereof stems from information overloads, as we more extensively discuss in the final section of the paper.

While the results displayed in Figure 6 pertain to the aggregate level, the question is how well the patterns highlighted above "travel" across all investigated countries. To address this question, we plotted the marginal effects of belonging to the traditional and online news seeker profiles on individual political knowledge country by country. The results are displayed in Figure 7, where purple areas depict countries where regression coefficients are nonsignificant (*p* values equal or higher than .05), and yellow areas are those where the effect is found to be positive and significant. Notably, the use of traditional sources (TV, newspapers, radio, and also public media) is associated with higher levels of political knowledge throughout Europe, except for Italy, where the positive effect is significant only at the 10 percent level, and Greece and Poland (not significant). On the other hand, online news seekers seem to be more knowledgeable in the Scandinavian countries, Austria, Switzerland, Hungary, Romania, and Israel, yet not in the Southern European countries (Italy and Greece), the United Kingdom, and the Netherlands.[8] These findings suggest that the same user profiles are not equally linked to political knowledge in all countries and are discussed in the following section.

Discussion

In this paper, we heeded the call for an audience-driven approach to studying European political information environments (Van Aelst et al. 2017). Toward that end and building on a comparative analysis including seventeen European countries, we have identified five different user profiles (news minimalists, social media news users, online news seekers, traditionalists, and hyperconsumers of news) and illustrated their prevalence across countries. We have also investigated the linkage between different user profiles and political knowledge both at the aggregate level and in each country.

Our findings have important implications for the conditions of informed democracy. First, they show that although there is a growing proliferation of media options to consume news, a considerable proportion of respondents—the minimalists—oftentimes opt out of news use or have a low-source, low-frequency news media diet. The composition of the news minimalist group depends on many contextual
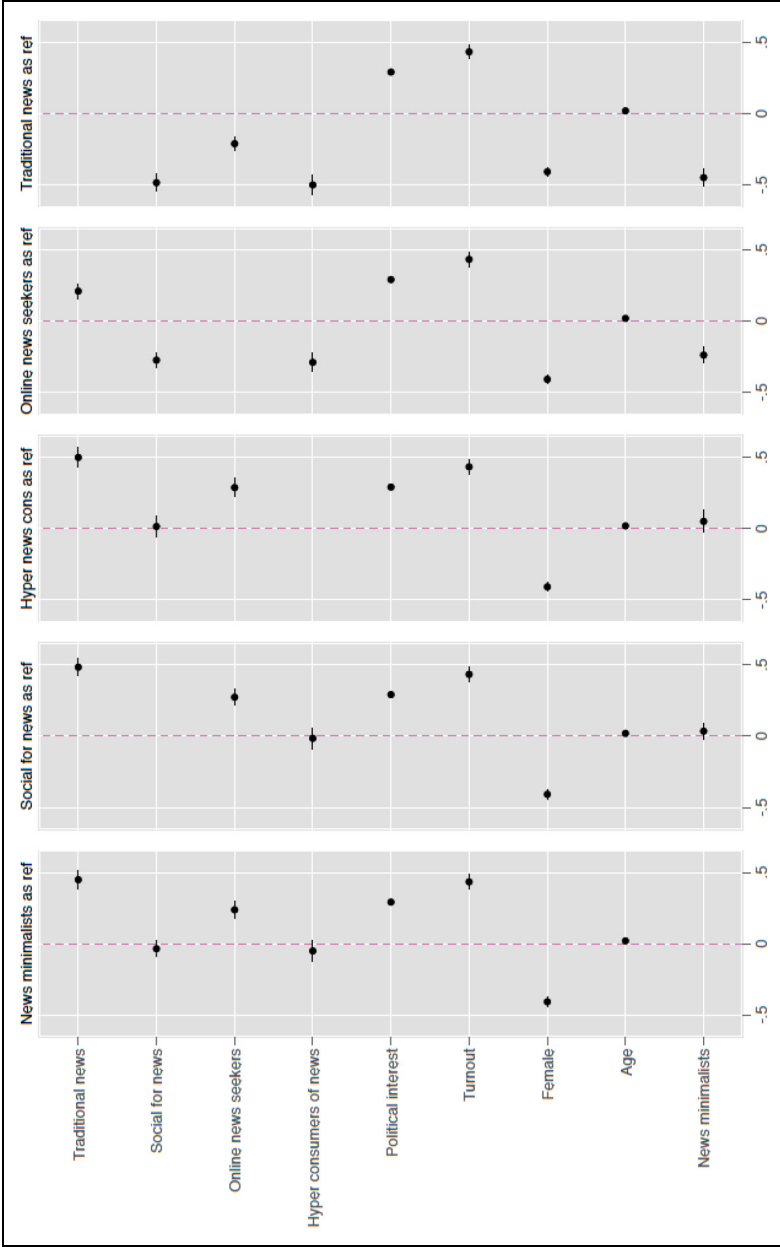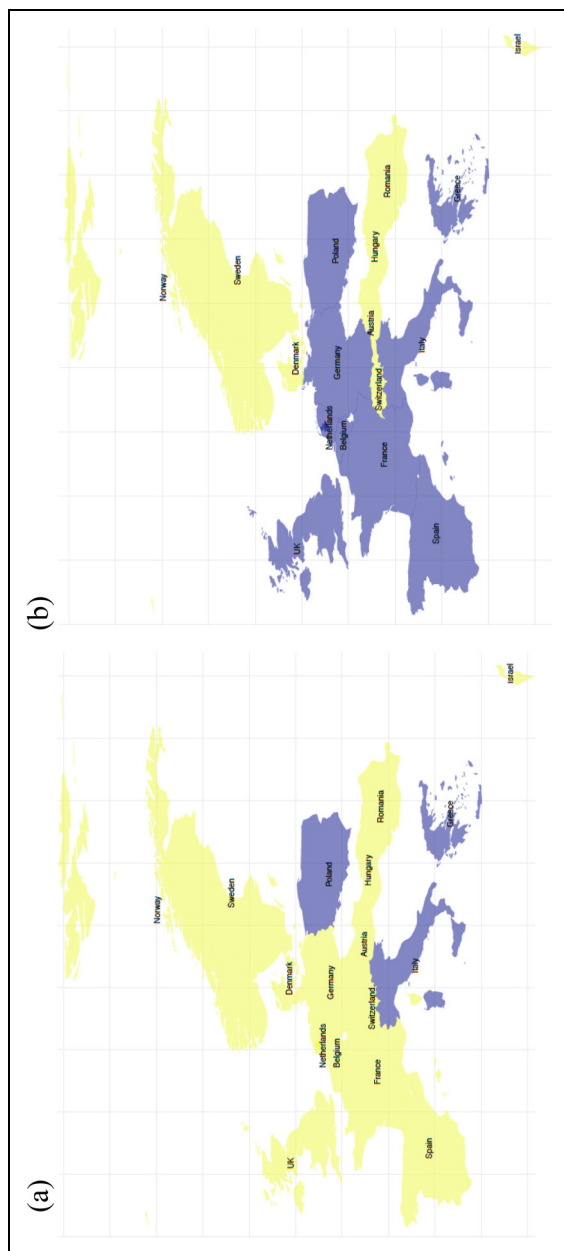
Figure 6. Regression coefficients of news user profiles on levels of surveillance political knowledge (Models 1–5, Table A3 in the Supplemental Material file).

Note. Dots represent regression coefficients and lines represent their associated 95 percent confidence intervals. *N* = 26,445.

and personality factors, which have been discussed at length in single-country studies of Germany (Hasebrink and Domeyer 2012), Israel (Wolfsfeld et al. 2016), the Netherlands (Bos et al. 2016), and Sweden (Strömbäck et al. 2018). From our comparative international perspective, however, an interpretation suggests itself that has been overlooked so far: News minimalists are most prevalent in globalized, heterogeneous societies that exhibit a high movement of people through labor mobility, migration, and cosmopolitanism. This finding calls indeed for future research that put forth news use measures able to account for processes of diffusion and globalized patterns of news use (beyond national news brands). This could also uncover whether the higher levels of news minimalism we detected in more globalized countries are due to undetected levels of news use.

We also identified a group labeled social media news users who primarily inform themselves via social networks. Social media news consumers have been profiled as a relatively homogeneous repertoire in previous studies (Bos et al. 2016; Strömbäck et al. 2018). In our study, the news consumption of this group is particularly *minimal*, both in terms of amount and frequency of exposure to political information. Like news minimalists, they are also distrustful of the media and barely interested in politics and public affairs. Accordingly, their political learning from media use is also more limited. This is in line with findings from Shehata and Strömbäck (2021), among others, who showed that people do not learn much from following the news on social media. This suggests that the potential positive effects of incidental exposure to news information through social networks might be offset by, for example, exposure to a sizable proportion of user-generated content and unreliable information conveyed through personalized streams and like-minded others.

Nevertheless, our analyses also uncovered a group of online and seemingly selective news users referred to as online news seekers. This was also the largest group in the sample. Importantly, individuals belonging to this group are comparatively much more knowledgeable than those following the news primarily through social media. The main difference with the group of social media users is that they combine information conveyed by social platforms with direct visits to news websites. This result is in line with previous findings (Dimitrova et al. 2014) and shows that what matters is not only whether citizens access news information via online or offline sources, but also which news sources are used. Online news users may learn more when they are aware of where information is being accessed from and when directly using the online sources that gather, investigate, select, and distribute original news and information following professional journalistic processes, regardless of whether these are online versions of traditional media, online-only, or even more alternative news brands.

The extent to which online news seekers learn about politics and current affairs varies across countries, however. We found clear differences between two groups of countries. While online news seekers from smaller, welfare-oriented, consensual media systems in Northern Europe (e.g., Norway, Sweden, Denmark, Switzerland, Austria) learn about politics through the news, this pattern does not apply to citizens from the more polarized, pluralistic media systems in the Mediterranean region (e.g., Greece, Italy, Spain, France).

Figure 7. Marginal effects of use of (a) traditional and public media and (b) online news seekers on individual political knowledge (purple = no effect, yellow = positive and significant effect at the 5 percent level). (The color figure is available in the online version of the journal).
Note. Results of OLS regression models (with four news profiles, political interest, turnout, education, female, and age as controls, and news minimalists as the reference category), Models 1–17, Table A5 in the Supplemental Material file.

Such a spatial-cultural difference is not evident in another user profile that is also conducive to learning, in which the use of traditional media (TV, newspaper, radio, and public service media) takes center stage. This user profile, which we labeled as traditionalists, was identified by previous single-country studies (Wolfsfeld et al. 2016) and is found to be more common in Scandinavian and democratic-corporatist systems (Hallin and Mancini 2004). Our findings show that users of traditional news and public media tend to score better than any other user profile on all sorts of knowledge questions virtually everywhere. Furthermore, at the aggregate level, a stronger audience-orientation toward traditional and public media, and by extension, more diverse, high-quality, and objective information (Castro-Herrero et al. 2018; Esser et al. 2017; Soroka et al. 2013) may have an ecological effect on other news organizations through a mechanism called *market conditioning*: it encourages rivals who compete for the same audience to increase their quality (Aalberg and Cushion 2016; Castro-Herrero et al. 2018; Van der Wurff 2005). An indication of this potential ecological effect is that where traditionalists constitute a larger group (Scandinavian plus German-speaking countries), belonging to other information-rich user profiles (online news seekers) tends to be positively and significantly correlated with political knowledge.

Overall, the findings suggest that traditional news media—in their offline and online formats—convey a more valuable array of political information and are more successful in providing a general overview of what is going on in politics and society than other news sources. Indeed, our findings suggest that it is more about quality than quantity since traditionalists consume information from a *lower* number of sources than most news profiles identified in this study. Accordingly, consuming news from a broader range of news outlets, channels, programs, and platforms does not necessarily make for a more informed citizenry, and it may even lead to the opposite. As our analyses show, respondents embedded in the hyperconsumers news profile are *less* politically knowledgeable than the average news user. In line with previous research (van Erkel and Van Aelst 2020), this may be due to *information overloads* and a tendency for news *snacking* over actual news reading. The avalanche of information and constant stream of news stories people are currently exposed to (not least on social media) makes it plausible that individuals using a multitude of sources find it ever harder to retrieve and process information from their available media. Indeed, compared to the other news profiles, hyperconsumers of news use a greater number of online news outlets and social platforms for news.[9]

While we believe this study represents a significant contribution to extant research, it is not without limitations. First, the use of cross-sectional data does not allow us to resolve potential issues of reverse causality. Although our theoretical assumptions build on data from more than 28,000 individuals in seventeen countries and results are highly generalizable, further longitudinal research is needed to investigate both the causality and stability of the patterns found in this study. Second, conducting content analyses of news sources used by respondents in our sample would have helped put more "flesh on the bone" (Schuck et al. 2016: 206) by providing a better grasp of the exact type of messages that are

being accessed and the actual impact of frequent information habits. For example, a future content analysis would be useful to investigate whether the North–South differences in the profile of online news seekers might be due to the fact that the "aesthetics-driven, expressive, associative" news style attributed to Mediterranean countries is less conducive to knowledge acquisition than the "factual, rational, and condensed news style" attributed to the Scandinavian-Germanic countries (Umbricht and Esser 2016: 103).

Although some of our results square well with cross-country and individual differences in news consumption patterns found in previous studies, future research coupling survey data with digital trace data could provide robustness to our findings and offset frequent limitations associated with self-reports, such as individuals' problems to recall frequency of media exposure, satisficing strategies in online surveys, or social desirability bias conducive to overestimations of news media consumption (De Vreese et al. 2017; Prior 2009; Scharkow and Bachl 2017). The alternative (employing online behavioral data) also has well-known shortcomings. These include the difficulties to install trackers in certain devices, the limitations of drawing on media content at the URL or domain level, low consent rates to share or low penetration rates of certain social networks or search engines in some countries. That said, only the combination of survey and unobtrusively collected observational data could help elucidate whether, for instance, low political knowledge levels among individuals embedded in the hyperconsumption of news profile are indeed due to their tendency to engage in news snacking and information overloads, or are instead motivated by systematic patterns of overreporting news consumption. The use of more sophisticated approaches to the analysis of digital trace data could also add to the study of news use repertoires by simultaneously tracking individuals' media use and navigation patterns across multiple platforms and devices. This could further uncover how exposure, attention, and learning from certain content might be moderated by the use of different devices. For example, a recent study that investigated the learning effects of using *the same* traditional news media on *different platforms* found that people mainly learn from using these in their traditional formats (Andersen and Strömbäck 2021. See also Edgerly et al. (2018), Taneja et al. (2012) for studies on media repertoires including self-reported use of different devices).

These shortcomings notwithstanding, this study has gone beyond the current state of knowledge by investigating complex news repertoires in-depth and cross-nationally for the first time, as well as their linkages to political knowledge. Three key takeaways are worth reiterating: First, there are systematic links between the distribution of user profiles and country factors, for example, more news minimalists in more globalized countries; online news seekers in polarized-pluralist countries and more traditionalists in affluent welfare societies. Second, these micro–macro links also exist with regard to news knowledge: northern corporatist media systems offer users more favorable opportunity structures for knowledge acquisition than southern polarized ones. Third, mere intensity does not matter: hyperconsumers have much greater problems converting their news use into knowledge than traditionalists and selective online news seekers.

Acknowledgments

Declaration of Conflicting Interests

Funding

Supplemental Material

Supplemental material for this article is available online.

ORCID iDs

Laia Castro https://orcid.org/0000-0001-6281-0365
Ana S. Cardenal https://orcid.org/0000-0002-1540-8004
David N. Hopmann https://orcid.org/0000-0003-1089-0193
Sergio Splendore https://orcid.org/0000-0001-5324-4496
Yannis Theocharis https://orcid.org/0000-0001-7209-9669

Notes

1. To elaborate, in this paper, we aim at analyzing more stable and consistent patterns across countries in news use and political knowledge. Given the outbreak of COVID-19 between the panel waves, the circumstances when the second wave was in the field were highly atypical. Furthermore, the questionnaire in the second wave was shorter and did not contain all the variables used in this paper.
2. The use of a Kenward–Roger correction is a more conservative solution able to accurately estimate standard errors and p values when the number of clusters is lower than 30 (McNeish and Stapleton 2016). The use of REML provides less biased estimates of variance components than other methods for model fit when, as in our case, models are run on a relatively small number of clusters (McNeish and Stapleton 2016). To shed light on the robustness of our results we furthermore ran several models with alternative specifications (fixed and random effects, clustered robust standard errors) and in all cases similar trends arose.

3. We used a reduced sub-set of questions from Gil de Zúñiga et al. (2017: 112) that asked respondents whether they (dis)agree with a series of statements on a 10-point scale, namely: "I rely on my friends to tell me what's important when news happens"; "I can be well informed even when I don't actively follow the news"; "I don't worry about keeping up with the news because I know news will find me."

4. We used the European Social Survey (2016) question wording which contains different lists of educational levels by country. We then harmonized them using International Standard Classification of Education (ISCED) correspondences and recoded to a 3-point scale 1 (low), 2 (medium), 3 (high).

5. A series of analyses of variance comparing average probability of respondents to belong to any of the five profiles per country confirm significant country differences for all five profiles (not shown).

6. The Spearman correlation coefficient between the country rank orders of news minimalists and the Swiss Economic Institute (KOF) Globalization Index (https://kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-globalisation-index.html) is 0.69. This effect size should be considered strong (Cohen 1988).

7. We replicated the analyses using a second measure of political knowledge. The measure is built by calculating the distance of each individuals' responses from their country's mean. With this measure, if, say, an individual scores the highest in a country where all its citizens also score very high in knowledge, she will get a lower score than an individual with the same level of political knowledge in a country where her fellow citizens scored very low. This solution allows for partially "discounting" the context and provides higher *response* equivalence across individuals with different opportunity structures to access information. Thereby we compare responses of a given individual *only* against responses of individuals in the same country and embedded in the same political information environment. Results show similar trends as those we find with the standard knowledge index and are displayed in the Supplemental Material file (Table A4).

8. As for the rest of profiles, country-by-country patterns largely mirror results shown in Figure 6, except for Belgium (where social media news use is also positively associated with knowledge). In Norway, Sweden, Israel, and Romania, we also find that hyperconsumption of news positively predicts political knowledge. This may have several explanations. As argued in the introductory and the discussion sections of this article, in Scandinavian countries traditional media have historically set journalistic standards and this might explain an across-the-board effect of news use on political learning. This could also be made extensive to Romania, where recent research shows a very high prevalence of the intermedia agenda phenomenon during the beginning of the COVID-19 crisis (Buturoiu and Corbu 2021). In Romania, as is the case of Israel, average levels of surveillance knowledge are very low and there might also be more gain from news use than in other countries. Finally, our survey was run shortly after a week-long military operation in Gaza and after three rounds of National elections, which could have increased individuals' attention to news information and amplified gaps between the politically aware and unaware in Israel (see Table A5 in the Supplemental Material file for further details).

9. Alternatively, this finding could be due to a highly selective interest in some news topics at the expense of a broader knowledge of current political events and actors. However, levels of self-reported selective exposure are comparatively higher not only among hyperconsumers of news but also for online news seekers (a profile showing a positive linkage with levels of political knowledge).

References

Aalberg, T., and J. Curran. 2012. *How media Inform Democracy: A Comparative Approach* (Vol. 1). New York: Routledge.

Aalberg, T., and S. Cushion. 2016. "Public Service Broadcasting, Hard News, and Citizens' Knowledge of Current Affairs." In *Oxford Research Encyclopedia of Politics*. e-pub retrieved from https://oxfordre.com/politics/view/10.1093/acrefore/9780190228637.001.0001/acrefore-9780190228637-e-38

Althaus, S. L. 2003. *Collective Preferences in Democratic Politics: Opinion Surveys and the Will of the People*. Cambridge: Cambridge University Press.

Andersen, K., and J. Strömbäck. 2021. "Media Platforms and Political Learning: The Democratic Challenge of News Consumption on Computers and Mobile Devices." *International Journal of Communication* 15: 300–19.

Barabas, J., and J. Jerit. 2005. "Surveillance knowledge and the mass media." Annual Meeting of the American Political Science Association, Washington DC, 1–4.

Bos, L., S. Kruikemeier, and C. de Vreese. 2016. "Nation Binding: How Public Service Broadcasting Mitigates Political Selective Exposure." *PLoS ONE* 11 (5): e0155112.

Boukes, M. 2019. "Social Network Sites and Acquiring Current Affairs Knowledge: The Impact of Twitter and Facebook Usage on Learning About the News." *Journal of Information Technology & Politics* 16 (1): 36–51.

Brady, H. E., S. Verba, and K. L. Schlozman. 1995. "Beyond SES: A Resource Model of Political Participation." *American Political Science Review* 89 (2): 271–94.

Brüggemann, M., S. Engesser, F. Büchel, E. Humprecht, and L. Castro. 2014. "Hallin and Mancini Revisited: Four Empirical Types of Western media Systems." *Journal of Communication* 64 (6): 1037–65.

Buturoiu, R., and N. Corbu. 2021, August 30 – September 3. The Dynamics of Television and Online Media Coverage of COVID-19–Related Topics: Anin Termedia Agendasetting Perspective. ECPR General Conference, Virtual Event. https://ecpr.eu/GeneralConference

Castro-Herrero, L., E. Humprecht, S. Engesser, M. L. Brüggemann, and F. Büchel. 2017. "Rethinking Hallin and Mancini Beyond the West: An Analysis of Media Systems in Central and Eastern Europe." *International Journal of Communication* 11: 27.

Castro-Herrero, L., L. Nir, and M. Skovsgaard. 2018. "Bridging Gaps in Cross-Cutting media Exposure: The Role of Public Service Broadcasting." *Political Communication* 35 (4): 542–65.

Castro Herrero, L., and D. N. Hopmann. 2017. "The Virtue of Moderation: A Cross-National Analysis of Exposure to Cross-Cutting Information and Turnout." *International Journal of Public Opinion Research* 30 (4): 518–39.

Cohen, J. 1988. *Statistical Power Analysis for the Behavioral Sciences*. 2nd ed. Hillsdale, NJ: Erlbaum.

Delli Carpini, M. X. D., and S. Keeter. 1996. *What Americans Know About Politics and Why it Matters*. New Haven: Yale University Press.

De Vreese, C. H., M. Boukes, A. Schuck, R. Vliegenthart, L. Bos, and Y. Lelkes. 2017. "Linking Survey and media Content Data: Opportunities, Considerations, and Pitfalls." *Communication Methods and Measures* 11 (4): 221–44.

Dimitrova, D. V., A. Shehata, J. Strömbäck, and L. W. Nord. 2014. "The Effects of Digital media on Political Knowledge and Participation in Election Campaigns: Evidence From Panel Data." *Communication Research* 41 (1): 95–118.

Edgerly, S. 2015. "Red Media, Blue Media, and Purple Media: News Repertoires in the Colorful media Landscape." *Journal of Broadcasting & Electronic Media* 59 (1): 1–21.

Edgerly, S., E. K. Vraga, L. Bode, K. Thorson, and E. Thorson. 2018. "New Media, New Relationship to Participation? A Closer Look at Youth News Repertoires and Political Participation." *Journalism & Mass Communication Quarterly* 95 (1): 192–212.

Esser, F., C. H. de Vreese, J. Strömbäck, P. van Aelst, T. Aalberg, J. Stanyer, G. Lengauer, R. Berganza, G. Legnante, S. Papathanassopoulos, S. Salgado, T. Sheafer, H. Gil de Zúñiga, B. Weeks, and A. Ardèvol-Abreu. 2017. "Effects of the News-Finds-Me Perception in Communication: Social Media Use Implications for News Seeking and Learning About Politics." *Journal of Computer-Mediated Communication* 22 (3): 105–23.

Esser, F., C. H. De Vreese, J. Strömbäck, P. Van Aelst, T. Aalberg, J. Stanyer, G. Lengauer, R. Berganza, G. Legnante, S. Papathanassopoulos, S. Salgado, T. Sheafer, and C. Reinemann. 2012. "Political Information Opportunities in Europe: A Longitudinal and Comparative Study of Thirteen Television Systems." *The International Journal of Press/Politics* 17 (3): 247–74.

Figenschou, T. U., and K. A. Ihlebæk. 2019. "Challenging Journalistic Authority: Media Criticism in Far-Right Alternative Media." *Journalism Studies* 20 (9): 1221–37.

Fletcher, R., and R. K. Nielsen. 2018. "Are People Incidentally Exposed to News on Social Media? A Comparative Analysis." *New Media & Society* 20 (7): 2450–68.

Fraile, M, and S. Iyengar. 2014. "Not All News Sources are Equally Informative: A Cross-National Analysis of Political Knowledge in Europe." *The International Journal of Press/Politics* 19 (3): 275–94.

Gil de Zúñiga, H., B. Weeks, and A. Ardèvol-Abreu. 2017. "Effects of the News-Finds-Me Perception in Communication: Social Media Use Implications For News Seeking and Learning about Politics." *Journal of Computer-Mediated Communication* 22 (3): 105–23.

Hallin, D. C., and P. Mancini. 2004. *Comparing media Systems: Three Models of Media and Politics*. Cambridge: Cambridge University Press.

Hasebrink, U., and H. Domeyer. 2012. "Media Repertoires as Patterns of Behaviour and as Meaningful Practices: A Multimethod Approach to Media use in Converging Media Environments." *Participations* 9 (2): 757–79.

Hasebrink, U, and J. H. Schmidt. 2012. "Informationsrepertoires der deutschen Bevölkerung." *Arbeitspapiere des Hans-Bredow-Instituts* 24: 1–76.

Heft, A., E. Mayerhöffer, S. Reinhardt, and C. Knüpfer. 2020. "Beyond Breitbart: Comparing Right-Wing Digital News Infrastructures in Six Western Democracies." *Policy & Internet* 12 (1): 20–45.

Hochschild, J. L., and K. L. Einstein. 2015. *Do Facts Matter? Information and Misinformation in American Politics*. Norman: University of Oklahoma Press.

Humphreys, P. J. 1996. *Mass Media and Media Policy in Western Europe*. Vol. 2. Manchester: Manchester University Press.

Kenward, M. G., and J. H. Roger. 1997. "Small Sample Inference for Fixed Effects From Restricted maximum Likelihood." *Biometrics*, 53 (3): 983–97.

Kim, S. J. 2016. "A Repertoire Approach to Cross-Platform Media Use Behavior." *New Media & Society* 18 (3): 353–72.

Ladd, J. M. 2011. *Why Americans Hate the Media and How it Matters*. Princeton, NJ: Princeton University Press.

Lee, S., and M. Xenos. 2019. "Social Distraction? Social Media Use and Political Knowledge in Two US Presidential Elections." *Computers in Human Behavior* 90: 18–25.

Lupia, A. 2016. *Uninformed: Why People Know so Little About Politics and What we Can do About it*. Oxford University Press.

Luskin, R. C. 1990. "Explaining Political Sophistication." *Political Behavior* 12 (4): 331–61.

Marquis, L., H. P. Schaub, and M. Gerber. 2011. "The Fairness of Media Coverage in Question: An Analysis of Referendum Campaigns on Welfare State Issues in Switzerland." *Swiss Political Science Review* 17 (2): 128–63.

Matthes, J., A. Nanz, M. Stubenvoll, and R. Heiss. 2020. "Processing News on Social Media. The Political Incidental News Exposure Model (PINE)." *Journalism* 21 (8): 1031–48.

McLeod, J. M., Z. Guo, K. Daily, C. A. Steele, H. Huang, E. Horowitz, and H. Chen. 1996. "The Impact of Traditional and Nontraditional Media Forms in the 1992 Presidential Election." *Journalism & Mass Communication Quarterly* 73 (2): 401–16.

McNeish, D. M., and L. M. Stapleton. 2016. "The Effect of Small Sample Size on Two-Level Model Estimates: A Review and Illustration." *Educational Psychology Review* 28 (2): 295–314.

McNeish, D., and L. M. Stapleton. 2016. "Modeling Clustered Data with Very Few Clusters." *Multivariate Behavioral Research* 51 (4): 495–518.

Miller, J. M., and J. A. Krosnick. 2000. "News media Impact on the Ingredients of Presidential Evaluations: Political Knowledgeable Citizens are Guided by a Trusted Source." *American Journal of Political Science* 44: 301–15.

Moehler, D., and D. M. Allen. 2016. "The Media Diet Imbalance Score: A Measure of Aggregate Media Diet." *Communication Methods and Measures* 10 (1): 4–12.

Nanz, A., and J. Matthes. 2020. "Learning from Incidental Exposure to Political Information in Online Environments." *Journal of Communication* 70 (6): 769–93. https://doi.org/10.1093/joc/jqaa031

Newman, N., R. Fletcher, A. Kalogeropoulos, and R. Nielsen. 2019. Reuters Institute digital news report 2019 (Vol. 2019). Reuters Institute for the Study of Journalism.

Nir, L. 2012. "Public Space: How Shared News Landscapes Close Gaps in Political Engagement." *Journal of Broadcasting & Electronic Media* 56 (4): 578–96.

Nord, L. 2016. "Nordic Media Systems 1850–1950: Myths, Mixtures and Metamorphoses." In *Communicating the North: Media Structures and Images in the Making of the Nordic Region*, eds. J. Harvard and P. Stadius, 25–46. Abingdon: Routledge.

Pfetsch, B. 1996. "Convergence through Privatization? Changing Media Environments and Televisedpolitics in Germany." *European Journal of Communication* 11 (4): 427–51. https://doi.org/10.1177/0267323196011004002

Prior, M. 2009. "The Immensely Inflated News Audience: Assessing Bias in Self-Reported News Exposure." *Public Opinion Quarterly* 73 (1): 130–43.

Scharkow, M., and M. Bachl. 2017. "How Measurement Error in Content Analysis and Self-Reported media use Leads to Minimal media Effect Findings in Linkage Analyses: A Simulation Study." *Political Communication* 34 (3): 323–43.

Schuck, A. R., R. Vliegenthart, and C. H. de Vreese. 2016. "Matching Theory and Data: Why Combining Media Content with Survey Data Matters." *British Journal of Political Science* 46 (1): 205–13.

Shehata, A., and J. Strömbäck. 2011. "A Matter of Context: A Comparative Study of Media Environments and News Consumption Gaps in Europe." *Political Communication* 28 (1): 110–34.

Shehata, A., and J. Strömbäck. 2014. "Mediation of Political Realities: Media as Crucial Sources of Information." In *Mediatization of Politics. Understanding the Transformation of Western Democracies*, eds. F. Esser and J. Strömbäck, 93–113. Basingstoke: Palgrave MacMillan.

Shehata, A., and J. Strömbäck. 2021. "Learning Political News From Social Media: Network Media Logic and Current Affairs News Learning in a High-Choice Media Environment." *Communication Research* 48 (1): 124–47.

Skovsgaard, M., A. Shehata, and J. Strömbäck. 2016. "Opportunity Structures for Selective Exposure: Investigating Selective Exposure and Learning in Swedish Election Campaigns Using Panel Survey Data." *The International Journal of Press/Politics* 21 (4): 527–46.

Soroka, S., B. Andrew, T. Aalberg, S. Iyengar, J. Curran, S. Coen, K. Hayashi, P. Jones, G. Mazzoleni, and J. W. Rhee. 2013. "Auntie Knows Best? Public Broadcasters and Current Affairs Knowledge." *British Journal of Political Science* 43 (4): 719–39.

Steppat, D., L. C. Herrero, and F. Esser. 2020. "News media Performance Evaluated by National Audiences: How Media Environments and User Preferences Matter." *Media and Communication* 8 (3): 321–34.

Strömbäck, J., K. Falasca, and S. Kruikemeier. 2018. "The Mix of Media use Matters: Investigating the Effects of Individual News Repertoires on Offline and Online Political Participation." *Political Communication* 35 (3): 413–32.

Strömbäck, J., and A. Shehata. 2019. "The Reciprocal Effects Between Political Interest and TV News Revisited: Evidence From Four Panel Surveys." *Journalism & Mass Communication Quarterly* 96 (2): 473–96.

Taneja, H., J. G. Webster, E. C. Malthouse, and T. B. Ksiazek. 2012. "Media Consumption Across Platforms: Identifying User-Defined Repertoires." *New Media & Society* 14 (6): 951–68.

Trilling, D., and K. Schoenbach. 2013. "Patterns of News Consumption in Austria: How Fragmented are They?" *International Journal of Communication* 7: 25.

Umbricht, A., and F. Esser. 2016. "The Push to Popularize Politics: Understanding the Audience-Friendly Packaging of Political News in Six Media Systems Since the 1960s." *Journalism Studies* 17 (1): 100–21.

Van Aelst, P., J. Strömbäck, T. Aalberg, F. Esser, C. de Vreese, J. Matthes, D. Hopmann, S. Salgado, N. Hubé, A. Stępińska, and others. 2017. "Political Communication in a High- Choice Media Environment: A Challenge for Democracy?" *Annals of the International Communication Association* 41 (1): 3–27.

Van Cauwenberge, A., L. d'Haenens, and H. Beentjes. 2010. "Emerging Consumption Patterns Among Young People of Traditional and Internet News Platforms in the Low Countries." *Observatorio (OBS*)* 4 (3): 335–52.

Van der Wurff, R. 2005. "Competition, Concentration and Diversity in European Television Markets." *Journal of Cultural Economics* 29 (4): 249–75.

van Erkel, P. F., and P. Van Aelst. 2020. "Why Don't We Learn from Social Media? Studying Effects of and Mechanisms Behind Social Media News Use on General Surveillance Political Knowledge." *Political Communication* 24 (2): 165–88.

Van Rees, K., and K. Van Eijck. 2003. "Media Repertoires of Selective Audiences: The Impact of Status, Gender, and Age on Media Use." *Poetics* 31 (5-6): 465–90.

Westlund, O., and M. Ghersetti. 2015. "Modelling News Media Use: Positing and Applying the GC/MC Model to the Analysis of Media Use in Everyday Life and Crisis Situations." *Journalism Studies* 16 (2): 133–51.

Wolfsfeld, G., M. Yarchi, and T. Samuel-Azran. 2016. "Political Information Repertoires and Political Participation." *New Media & Society* 18 (9): 2096–115.

Yang, T., S. Majó-Vázquez, R. K. Nielsen, and S. González-Bailón. 2020. "Exposure to News Grows Less Fragmented with an Increase in Mobile Access." *Proceedings of the National Academy of Sciences* 117 (46): 28678–83. https://doi.org/10.1073/pnas.2006089117

Author Biographies

Laia Castro is a senior research and teaching associate at the Department of Communication & Media Research at University of Zurich and a lecturer at Universitat Internacional de Catalunya-Barcelona. She does empirical work on political communication, comparative media research & public opinion.

Jesper Strömbäck is a professor in journalism and political communication at the Department of Journalism, Media and Communication, University of Gothenburg, Sweden.

Frank Esser is a Head of the Department of Communication and Media Research and full professor of International & Comparative Media Research at the University of Zurich. Previously, he also held a part-time adjunct professorship in the Department of Media and Communication at the University of Oslo.

Peter Van Aelst is a research professor at the department of political science at the University of Antwerp and a founding member of the research group "Media, Movements and Politics" (M2P). His research focuses on political communication.

Claes de Vreese is a professor of Political Communication (ASCoR) and a distinguished professor of AI and Democracy at the University of Amsterdam.

Toril Aalberg is a professor and the head of the Department of Sociology and Political Science at the Norwegian University of Science and Technology (NTNU) in Trondheim. She does empirical work on political communication, political behavior, and public opinion.

Ana S. Cardenal is a associate professor of political science at the Law and Political Science Department at the Universitat Oberta de Catalunya (UOC) and a lecturer at the Universitat Pompeu Fabra (UPF). Her recent work focuses on the areas of comparative political communication, digital media, and public opinion.

Nicoleta Corbu is a professor at the National University of Political Studies and Public Administration (SNSPA), Bucharest, Romania, where she coordinates the Center for Research in Communication and the Multi-disciplinary Ph.D. School. Her research interests focus on political communication, media effects, and education policies.

David Nicolas Hopmann is a professor at the Centre for Journalism, University of Southern Denmark. In his research he investigates the antecedents of media content and its effects on news users.

Karolina Koc-Michalska is a professor at the Audencia Business School and has affiliations with CEVIPOF Sciences Po Paris, France, and University of Silesia, Faculty of Social Sciences, Poland. Her research focuses on the strategies of political actors in the online environment and citizens' political engagement. She employs a comparative approach focusing on the United States and European countries.

Jörg Matthes is a professor of communication science at the University of Vienna. His research interests include political communication, digital media use, media effects, and advertising.

Christian Schemer is a professor of Communication at the Department of Communication of the Johannes Gutenberg University in Mainz, Germany. His research is focused on political communication use and effects.

Tamir Sheafer is a professor in the Department of Political Science and the Department of Communication and Journalism, and the dean of the Faculty of Social Sciences at the Hebrew University of Jerusalem.

Sergio Splendore is a associate professor at the Department of Social and Political Sciences at the University of Milan and his main research interests are journalism and political communication.

James Stanyer is a professor of Communication and Media Analysis, at the School of Social Sciences and Humanities, Loughborough University, UK. His research is focused on political communication in advanced industrial democracies.

Agnieszka Stępińska is a professor at the Faculty of Political Science and Journalism at the Adam Mickiewicz University in Poznań, Poland. She does empirical work on political communication, comparative media research & journalistic role perception and performance.

Václav Štětka is a senior lecturer in Communication and Media Studies at the School of Social Sciences and Humanities, Loughborough University (UK). Previously he worked at Masaryk University in Brno, University of Oxford and Charles University in Prague. His research interests encompass political communication and polarization, journalistic autonomy, and the relationship between media and democracy in Central and Eastern Europe.

Yannis Theocharis is a professor and chair of Digital Governance at the TUM School of Governance, Technical University of Munich. His work focuses on political behavior, political communication, and computational social science.