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Following the news: Patterns of online and offline news consumption

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Chapter 4

Patterns of news consumption in Austria:

How fragmented are they?

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Patterns of news consumption in Austria:

How fragmented are they?

Introduction

In many countries, the reach of television news and newspapers is steadily declining. Especially younger cohorts are said to increasingly rely on online media (e.g., Best & Engel, 2011). Once online news exposure really takes over, though, some expect huge consequences. Optimists are glad about the huge amount of information freely available to anyone and about the possibility of seeking information about even the most specialized topic. Society should profit from a citizenry as informed about public affairs as never before in history (Negroponte, 1995; Shirky, 2008). Pessimists, however, fear that the integrating function of mass media vanishes (Bennett & Iyengar, 2008; Chaffee & Metzger, 2001) because of a fragmentation of the audience. This integrating function, Katz (1996) argues, is crucial for a society and depends on one common – mediated – space that includes virtually everyone, like a far-reaching TV channel everyone watches and discusses about. But a common discourse about current affairs might become more difficult because people now can easily avoid public affairs information completely – and even if they don't, they may turn to sources only that fit their predispositions (Pariser, 2011; Sunstein, 2001, 2007). And indeed, those who prefer to use media to entertain rather than to inform themselves avoid news sites on the Internet and those who are not interested in politics are less likely than before to expose themselves to news media (Prior, 2007). In former times, Prior argues, those with a high *entertainment preference* and a low *political interest* would have been trapped by the news in offline media due to the lack of alternative content that fit their preferences better.

To put it more generally, due to a greater autonomy of the audience, the characteristics of its members could play an increasingly important role for being exposed to news, compared to the influence of the amount and structure of the media offer (see also Chapter 2). These are recipient features such as the perception of one's *political efficacy* or the sense of a *civic duty to keep informed*. The lack of these characteristics has always made people avoid news (Aarts & Semetko, 2003; Kenski & Stroud, 2006; Poindexter & McCombs, 2001;

Tewksbury, Hals, & Bibart, 2008). The same seems to apply to *Need for Cognition*: People who are not curious and do not like to reflect have exposed themselves less frequently to public affairs (Cacioppo & Petty, 1982; Das, Echambadi, McCardle, & Lockett, 2003; Kraaykamp & Van Eijck, 2005) and may now skip news even more. It is also plausible that *introvert* people should be less than ever interested in topical overviews over what is going on in the world – although evidence on this is mixed (Finn, 1997; Kraaykamp & Van Eijck, 2005; Shim & Paul, 2007).

Concerns about the recent media offer, however, do not only address whether people use news at all. It should also be easier to find news content that is consistent with one's personal interests and pre-existing beliefs. Therefore, some have even suggested making exposure to a diversity of both viewpoints and topics a policy goal (Helberger, 2011). And a whole body of research has studied *selective exposure*, particularly exposure determined by one's political standpoints: One could indeed assume that people's *political orientation* now is more important for their selection of news (for an overview, see Stroud, 2011).

A more moderate version of the claim that the Internet leads to selective exposure has argued that people indeed are selective to a certain extent. But they do not necessarily actively *avoid* general news outlets that inevitably also contain information they may not like. There is some evidence that partisans indeed use a lot of partisan media, but typically also turn to mainstream media extensively (Bimber & Davis, 2003; Garrett, 2009a, 2009b; Garrett, Carnahan, & Lynch, 2011; Kobayashi & Ikeda, 2009; Stroud, 2008; Zaller, 1992). Consequently, online like offline, a few of such mainstream media dominate the news market (Hindman, 2009). Ideologically consistent exposure is further limited by some types of outlets that do not take ideologically extreme positions, but have a wide reach – like local media – and therefore are part of strong partisans' diets as well (LaCour, 2012).

In any case, people's use of news media does not seem to be selective in the sense that they individually concentrate on one single news outlet that fulfills all their requirements. Media recipients rather choose for one of several typical combinations of news outlets – so-called “media repertoires” or “media diets” (Handel, 2000; Hasebrink & Popp, 2006; Hasebrink & Schmidt, 2012; Meyen, 2007; Van Cauwenberge, d'Haenens, & Beentjes, 2010; Van Rees & Van Eijck, 2003; Chapter 3). The reason for people to stick to relatively fixed repertoires is to reduce the complexity that comes with the overwhelming

number of choices (Webster, 2011). Based on Giddens' structuration theory, Webster argues that every agent is free to decide which media content to use. But in the aggregate, he adds, media use is highly predictable due to structural factors. Consequently, this also means that as a precondition for actors to act strictly rationally, like selectively exposing themselves to specific media content, media resources must provide agents with the structures to do so.

Interestingly, studies on media repertoires consistently found only a very limited number of repertoires. But could this low number be an artifact – and audience fragmentation actually more dramatic than these large groups suggest? Typically, studies on media diets have to take two fairly arbitrary decisions: First, how fine-grained should media exposure be measured? Plausibly, sweeping measures such as “watching TV” or “reading a newspaper” inevitably produce a lower estimate of fragmentation than asking questions about which newscasts or newspapers precisely one used.

The second decision to be taken concerns the statistical techniques to find those combinations of exposure. They offer the researcher much freedom in how many diets to distinguish. For instance, a hierarchical cluster analysis is supposed to group users with similar media diets. But how many groups the analysis suggests is fairly arbitrary, because the number of clusters is up to the researcher and thus also how similarly users have to consume media to belong to one cluster. In other words, who wants to find fragmentation, finds it – one just has to increase the threshold for similarity.

So, how to tackle this decision? It is a dilemma because, of course, the aim of every study on news diets is the reduction of complexity. From this purpose follows that the number of diets to be detected should be as high as necessary, but as small as possible. However, this is not an empirical but a normative question. Its answer depends on what amount and kind of fragmentation one deems problematic. The degree of possible dangers for society would then define the sensitivity with which to extract clusters.

In principle, two media use patterns could be called a fragmentation that is dangerous for society, dangerous in the sense of making deliberation impossible, i.e., a democratic discourse of virtually everybody (Habermas, 1962). The first pattern to worry about is the existence of a considerable group that avoids news completely. But how many people can a democratic society handle who do not know anything about current public-affairs issues or who cannot cast their vote – at least to some extent – rationally because they have no idea what

parties or candidates stand for? The answer depends on which theory of democracy one's argumentation is based on (see, e.g., Strömbäck, 2005).

The other problematic pattern is the existence of groups actually turning to news but only to outlets with one specific ideological position or a limited thematic scope. Again, this would make their participation in a deliberative discourse difficult (Sunstein, 2001). Although less obvious, one could also argue that a narrow selection of media genres (like only tabloids, broadsheets, soft news programs, or only the TV evening news) or even channels (like only television, papers, or only the internet) restricts one's horizon and therefore is bad for the democratic discourse (see also Helberger, 2011). And again, this may not be a question with a dichotomous answer, but with a continuous one. For instance, is it bad when people use, say, 80 percent, of their media time on their own specific media outlet but share 20 percent of their media behavior with others? And if so: How many others? In other words, how limited has the overlap between diets to be called a worrying fragmentation? One could argue that as long as news diets do not systematically exclude mainstream outlets, this overlap prevents the formation of fragmented issue publics.

In the light of these definitory problems, it makes sense to see fragmentation not as a binary characteristic of an audience but as a continuum (Handel, 2000). For the position on this continuum, then the different criteria for fragmentation discussed above play a role. So, rather than to say that country X has a fragmented audience, it makes more sense to state that it is more fragmented than country Y or than country X itself some years ago. This study, therefore, does not aim to give a conclusive answer whether the Austrian media landscape is fragmented or not, but rather explores different criteria for the amount of fragmentation for media use in Austria today.

Mapping news use in Austria

Much fragmentation and selective exposure research stems from the United States States – although some studies from other countries exist: For example, Kim and Webster (2012) found only minimal evidence that increased TV channel choice in South Korea in the last decade has widened the gap between news avoiders and heavy viewers.

Still, one major problem is that results are highly contingent on the context in which research is conducted. The reason for this is that agents and structures interact; in other words, agents are dependent on structures in their media choices (see, e.g., Webster, 2011). Structures, however, differ between media

landscapes. The generalizability of these studies, therefore, even for other Western democracies, is precarious. Media systems differ greatly, especially regarding the role of public-service media and the degree to which media represent polarized political standpoints (Hallin & Mancini, 2004) and cross-cutting exposure to media outlets with divergent political stances (Goldman & Mutz, 2011). The same applies to the political and electoral system, public culture, levels of interest in politics, political participation, etc. For example, US research can relatively easily distinguish between Democratic- and Republican-leaning news outlets and blogs (Iyengar & Hahn, 2009; as example for this approach, see Morris, 2007). In European multi-party systems, these straightforward distinctions regarding both parties and media outlets are hard to make (e.g., Van der Meer, Lubbe, Van Elsas, Elff, & Van der Brug, 2012).

The aim of this study therefore is to test findings from previous studies in a different media system. For this purpose, we use a large-scale representative survey from Austria that we collected in order to replicate findings from earlier studies on patterns of media use (Chapters 2 and 3).

Austria with its a little more than eight million inhabitants is one of the smaller European countries. In Hallin and Mancini's (2004) typology of the relationship between political system and journalism, it belongs to the North/Central European or democratic-corporatist model. In contrast to its other members, in Austria the newspaper landscape is assumed to be characterized by more "political parallelism in media and politics: politicians in Austria are less concerned by media self- or co-regulation than perpetuating political influence", which would make Austria a "border crosser" between Hallin and Mancini's North/Central European and the Mediterranean Model" (Karmasin, Kraus, Kaltenbrunner, & Bichler, 2011, p.23). If this description holds, it should be easier for Austrians to find a media outlet matching their political preferences.

At the same time, the newspaper and TV landscape is also characterized by a national oligopoly. The tabloid newspaper *Kronen Zeitung* reaches almost 40% of the population – an exceptionally high value compared to other countries. In broadcasting, commercial stations were introduced as late as in the 1990s and still have a considerably weak position, compared to the public service organization ORF (Karmasin et al., 2011). And the Austrian television market is considerably influenced by stations from neighboring Germany (Steinmaurer, 2009). Compared to other small countries, Austrian media are more regionalized (Bardoel & Van Reenen, 2009; Steinmaurer, 2009). The

online media landscape in Austria is characterized by a moderate level of Internet penetration: According to the European Union's Eurostat, 75% of the Austrian households have access to the Internet – in between some European countries with well above 90% such as the Netherlands and other, mainly post-communist, countries with below 60%. Structurally, online-only news sites play only a marginal role in Austria – most online news outlets are a spinoff of an offline counterpart (Steinmaurer, 2009).

Studies that include exposure to all forms of today's news outlets in Austria do not exist. However, patterns of news consumption are constituted by media of different types and different geographical reach (e.g., Ksiazek, Malt-house, & Webster, 2010). We therefore conduct a survey to explore how patterns of news exposure exactly look like if we take both online and offline outlets into account. The different criteria for fragmentation discussed above are used to guide our research questions: the existence of groups in society with (almost) no news exposure at all (and their size), the existence of groups with a narrow news diet (and their size), the overlap of different diets. We showed that people use such diets to reduce complexity. If compositions of these diets are idiosyncratic, then they lead to fragmentation. Therefore, we investigate:

RQ1: How is the exposure to different news media outlets in Austria combined?

If these patterns turn out to show signs of fragmentation, though, it is crucial to know what makes people choose for one of these diets. Therefore, having identified patterns of exposure, we analyze how the variables that – as we discussed above – are expected to increasingly relate to media choices:

RQ2: How are user preferences and characteristics related to the choice for a specific news diet?

Method

Sample

Our web-based survey draws on a large sample representative for the Austrian population with Internet access. From a panel with about 201.000 members, research bureau Margetagent drew a sample. Quota were used to match age, gender, and place of residence with the Austrian population. The survey was in the field in November 2010 and a response rate of 17% was achieved, resulting in a sample size of 2,954 after removal of invalid cases. While this response rate is lower than desired, we argue that the sample is still suitable for our pur-

pose, as the main aim of our study is not to provide an as exact as possible estimate of our variables, but rather explore general patterns of media exposure among Austrian Internet users – patterns that are probably not influenced too much by a nonresponse bias. For the purpose of this paper, we further removed 125 respondents under the age of 18 years, as adolescents' media behavior tends to differ – which was not the focus of our study. Therefore, our analyses are based on a sample of $N=2,829$.

Measurement

News exposure. Our questionnaire gauged news use separately for 80 outlets with a general-news offer – covering public affairs of all kinds. These sources range from newspapers via television programs to news websites. We included all newspapers, all news and current-affairs programs on Austrian television channels, the websites of these offline outlets, magazines, radio news, and teletext. In addition, we compiled an extensive list of websites that are not linked to any offline source, but offer at least some general-interest news. For each source, we measured the number of days it is used in a typical week (question wording see appendix).

Independent variables. The following variables were measured using seven-point scales unless stated otherwise:

Entertainment preference. The respondents were asked to indicate on three ten-point scales whether they use newspapers, television and the Internet, respectively, rather for information or for entertainment purposes. Although these items formed a reliable scale in an earlier study (Chapter 2), its reliability was unsatisfactory in the current dataset (Cronbach's $\alpha = .48$). We therefore include the items separately in our analysis.

Political interest. We asked: "Generally speaking, how interested are you in politics".

Civic duty to keep informed. We measured agreement with the statement "It is important that people in society are informed about news and current affairs."

Political efficacy. Both the internal efficacy scale, consisting of four items (Cronbach's $\alpha = .78$), and the external efficacy scale (three items, Cronbach's $\alpha = .78$) were inspired by Niemi et al. (1991).

Political orientation. We used an 11-point scale ranging from 'left' to 'right'.

Need for Cognition. We shortened a scale provided by Cacioppo, Petty, and Kao (1984) (Cronbach's $\alpha = .84$).

Extraversion. We selected four items used by Stefanone and Jang (2007) and McCrae and Costa (1996) (Cronbach's $\alpha = .72$).

Sociodemographics. Age and gender were gauged, as was education. For the latter, the highest level of education attended was asked using a seven-point scale, reaching from elementary education or even less to a university degree. To measure the region of residence, we asked in which of the nine states of Austria the respondent resides.

Analysis

To answer RQ1, we explored news diets by means of a hierarchical Ward's linkage cluster analysis. While another widely used data reduction technique, factor analysis, aims to identify *variables* measuring the same concept, cluster analysis tries to find similar *cases* – which is exactly what a study to identify people with similar patterns of news exposure needs to do. Starting with as many clusters as there are respondents, the analysis merges step-by-step those clusters with the highest similarity – a process that obviously ends in one single big cluster. As mentioned above, the researcher thus has to decide on when to stop the process, using tools like statistical stopping rules or plots like dendrograms or scree plots. As there is no right or wrong number of clusters, also interpretability and theoretical considerations should be taken into account (e.g., Norušis, 2011).

We were forced to remove outlets used by less than 10% of the sample to avoid including highly skewed variables into the cluster analysis, which would yield invalid results. This means that our analysis is not able to find a potential group of users whose news diet may consist of small "long-tail" outlets only. However, an inspection of those who use the excluded outlets shows that such a group is virtually non-existent – which is in line with previous research (Webster & Ksiazek, 2012).

In a second step, addressing RQ2, we analyze how the independent variables explain the choice for one of the news diets identified by the cluster analysis. To this end, we estimated the likelihood of being a member of a specific cluster by means of a hierarchical multinomial logistic regression.

Results

Patterns of news exposure

Our analysis starts off with a model with as few clusters as reasonably possible according to the criteria of the dendrogram, the Duda-Hart stopping rule, and consistent interpretability. Table 4-1 shows that five major patterns of combining news media in Austria can be distinguished (RQ1). One of them contains already half of the sample. We call these people *occasional users* (cluster 1), as uses only a limited number of news media and do not show clear preferences for one or the other outlet – except for radio news, which they use on a regular basis. Due to the low frequency of exposure, it is impossible to say which outlets occasional news users use exactly – the variance within the group is too high. Once one distinguishes more diets, of course, this might change.

Another group shows exactly the opposite behavior: *Heavy users* (cluster 5 – 8.8%) differ from all other groups mainly by much higher frequencies of exposure to all outlets. But like the occasional users, they do not show specific preferences in their media choice. They also use some additional sources that are not part of any other news diets, like the tabloid newspaper *Österreich*, several television programs from Germany, and less popular Austrian TV programs on all stations.

In addition to these two diets that are mainly characterized by their amount of exposure rather than by what they are exposed to, three more distinct news diets could be identified. These recipients could be distinguished by their preference for regional media (cluster 2), tabloid media (3), and public service media (4). These preferences seem to persist across media channels: Readers of regional (2) or tabloid (3) newspapers visit the websites of these newspapers as well, and those who watch public-service television news (4) also visit the respective station's website.

Table 4-1

Cluster analysis

Title (Type)	1 Occ- asional users	2 Reg- ional users	3 (PS-) TV fans	4 Tabloid readers	5 Heavy users
Österreich (Tabloid newspaper)	0.7	0.5	0.7	0.8	2.2*
Kurier (National newspaper)	0.3	0.2	2.8*	0.5	1.1
Die Presse (National newspaper)	0.4	0.4	0.6	0.1	0.8
KronenZeitung (Tabloid newspaper)	1.2	2.1*	1.4	6.1*	4.3*
Heute (Free newspaper)	1.0	0.1	0.9	1.1	1.8
Der Standard (National newspaper)	0.5	0.4	0.5	0.1	0.8
Kleine Zeitung (Regional newspaper)	0.3	6.6*	0.2	0.4	0.9
Oberösterreichische Nachrichten (Regional newspaper)	0.4	0	0.2	0.3	1.2
Zeit im Bild 1 (Public service news)	1.1	2.3*	3.9*	2.4*	5.1*
Zeit im Bild 2 (Public service news)	0.9	2.2*	3.8*	2.0*	5.4*
Zeit im Bild 20 (Public service news)	1.0	2.0*	2.6*	1.5	4.5*
Zeit im Bild 24 (Public service news)	0.5	0.7	1.4	0.7	2.8*
Weltjournal (Public service current affairs)	0.2	0.3	0.4	0.3	1.6
Tagesschau (German public service news)	0.2	0.4	1.1	0.3	2.0*
Tagesthemen (German public service news)	0.2	0.3	0.7	0.3	1.5
Heute (German public service news)	0.2	0.4	0.8	0.3	1.9
HeuteJournal (German public service news)	0.2	0.3	0.8	0.2	1.6

RTL-aktuell (Commercial TV news)	0.9	1.0	0.8	1.1	2.1*
Stern TV RTL (Commercial TV current affairs)	0.4	0.4	0.4	0.6	1.5
Austria News (Commercial TV news)	0.9	0.7	0.6	1.0	2.1*
Arte Journal (German/French TV news)	0.1	0.2	0.3	0.1	1.2
Plus 4 Austria News (Commercial TV news)	0.6	0.5	0.5	0.7	2.2*
ATV Aktuell (Commercial TV news)	0.5	0.7	0.7	0.8	2.4*
ZIB Flash (Public service TV news flash)	1.1	2.0*	2.5*	1.9	3.6*
Heute in Österreich (Public service current affairs)	0.4	1.1	1.5	1.2	4.0*
Regional TV (Regional TV)	1.0	2.6*	3.6*	2.6*	4.6*
krone.at (Tabloid newspaper website)	1.0	1.2	0.8	2.0*	3.0*
heute.at (Free newspaper website)	0.2	0.1	0.2	2.0*	3.0*
oe24.at (Tabloid newspaper website)	0.3	0.3	0.4	0.5	1.5
kleinezeitung.at (Regional newspaper website)	0.3	3.0*	0.3	0.3	1.1
kurier.at (National newspaper website)	0.4	0.3	1.5	0.4	1.6
nachrichten.at (Regional newspaper website)	0.2	0.1	0.3	0.3	1.4
derstandard.at (National newspaper website)	0.7	0.3	1.2	0.2	1.2
diepresse.com (National newspaper website)	0.3	0.3	0.6	0.2	1.0
news.at (Magazine website)	0.5	0.5	0.5	0.6	1.6
orf.at (Public service tv website)	1.4	1.8	2.7*	1.9	2.4*
gmx.at (Portal)	1.3	1.2	0.7	1.1	1.6
msn.at (Portal)	0.5	0.5	0.3	0.5	1.2

kronehit.at (Radio station website)	0.3	0.4	0.2	0.6	1.5
news.google.at (News aggregator)	0.5	0.7	0.7	0.9	1.9
radio news	3.5*	5.0*	5.2*	4.9*	5.1*
news on teletext	1.4	2.0*	3.1*	2.4*	3.3*
n =	1470	275	385	451	248

Note. Numbers indicate the average number of days per week the source is used. Outlets used on at least 2 days per week are marked with an asterisk.

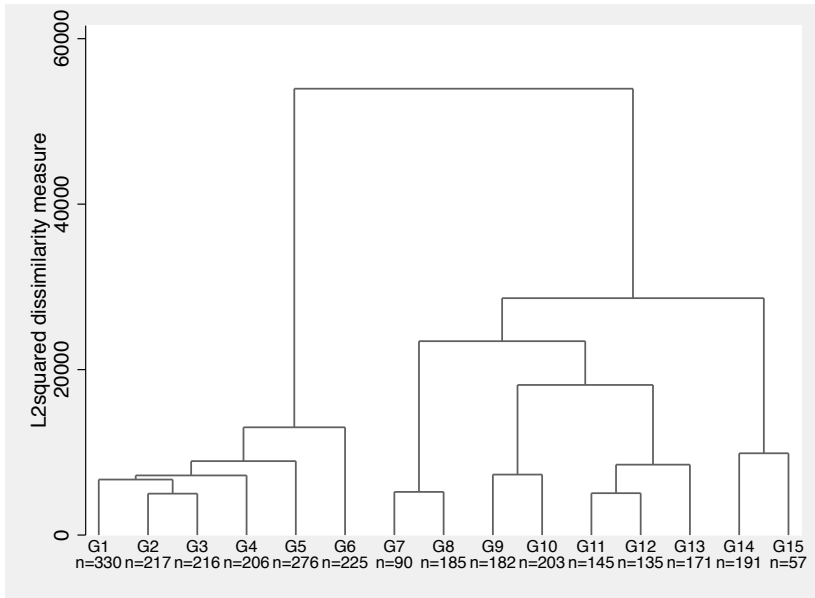
In detail, *regional users* (Cluster 2 – 9.7%)— more specifically, readers of the regional paper *Kleine Zeitung* and the corresponding website *kleinezeitung.at* – sometimes read the tabloid paper *Kronen Zeitung* as well. Very frequently, they watch one of the many editions of the public-service news broadcast *Zeit im Bild*, without showing a specific preference for one of them in particular. Their regional interest is also reflected in their exposure to regional television news.

The latter are also watched by the (public-service) *television fans* (Cluster 3 – 13.6%), whose television viewing behavior is mainly characterized by more frequent exposure compared to regional users. Furthermore, they do not read regional newspapers, but reading national newspaper *Kurier* is rather common in this group. Their preference for public service television is also reflected in their regular visits of the public service television’s website.

Tabloid readers (Cluster 4 – 16.4%) show a television viewing behavior comparable to regional users. Next to tabloid *Kronen Zeitung*, they only read the paper’s website *krone.at* and the website of a free paper, *heute.at*, on a regular basis.

If we allow more clusters, increasing their number to six, the group of occasional users is split into two groups with one of them using slightly more media than the rest, but again, without showing an interpretable combination of outlets in this cluster. This is represented in the dendrogram (Figure 4-1) by the split of the branch on the left. Similarly, after allowing seven clusters, such a distinction shows within the group of heavy users on the right side of the dendrogram. In other words, if we increase the number of clusters by two, the new patterns are not characterized by a different selection of outlets, but only by the level of their use.

Figure 4-1
Dendrogram



Not until we allow for as many as 15 clusters, signs of fragmentation can be observed. Now, we find groups with more distinct patterns of media use. At this point, for instance, the group of tabloid readers is divided into three sub-clusters ($n=145$, $n=135$, and $n=171$). Their most obvious difference is that the latter subgroup does not use the tabloid paper's website too, which the other groups regularly do. The last subgroup also uses fewer sources in general. Compared to the second subgroup, the first subgroup uses some additional (online) sources. But most importantly, also other mainstream outlets – such as public-service television news – are still an element of all subgroups' news diets.

The original group of *occasional users* is split into four different diets, consisting of between 206 and 330 users, respectively, with more specific preferences. The first group listens to the radio 5.7 days per week – what the others do only 3.4 to 3.7 days; the second group reads the free tabloid *Heute*, the paid tabloids *Österreich* and *Kronen Zeitung*, and the website of the latter about twice a week, respectively; the third group watches more television and uses teletext more often than the other occasional user groups – 4.5 days per week;

and the fourth group uses more internet sources – for example the magazine website *news.at* 4.0 days per week, but also the quality paper website *standard.at* 2.1 days per week.

Typical users of the news diets

The second aim of this study was to examine in how far personal characteristics are related to the choice of different news diets. To this end, we turn back to the earlier suggested five-cluster solution. We conducted all analysis for several numbers of clusters with comparable results, but as a practical example of a typology of news diets, we will present the results of the five-cluster analysis more in detail.

To find out how our different independent variables relate to the choice for one of these patterns, we conducted multinomial logistic regressions to find out who is likely to use which media diet (Table 4-2). We analyze which personal preferences and characteristics enable us to distinguish between *occasional users* and those with a more pronounced preference (clusters 2, 3, and 4). We use the occasional users as baseline category for three reasons: They are the biggest group; they have the least pronounced media preferences; and for theoretical reasons, the independent variables can be expected to have the most substantial effect on the use of any high-exposure diet compared to a low-exposure diet.

To account for the highly regional structure of the Austrian media landscape, we proceed in a hierarchical way. First, and even before including other sociodemographics, we have to control for the region of residence – which is in fact a proxy for an easy access to many offline media outlets in Austria's highly regionalized media landscape. And indeed, most of the fit of the final model (M2) is already accounted for by the region of residence (M0). In detail, the regional diet of *Kleine Zeitung* together with *kleinezeitung.at* (2) occurs almost only in the states of Styria and Carinthia. Virtually no one from another state uses this diet. But most residents of Styria and Carinthia do so. And the reper-

⁵ This is what the coefficients in Tabel 2 show. The equations are predicting the odds of being a member of each cluster *compared to cluster 1*, which is the baseline category. For direct comparisons between all other clusters, see the appendix.

⁶ Unlike in OLS regressions, the pseudo R^2 cannot be directly interpreted as explained variance; it rather reflects the improvement of the model fit. However, it is comparable in the sense that it also reaches from 0 to 1 and equals 1 if the model perfectly predicts the outcome.

toire that is mainly characterized by reading tabloid newspaper *Kronen Zeitung* is completely uncommon in the state of Vorarlberg: Compared to inhabitants of Vienna, the odds that someone from Vorarlberg chooses for this diet decrease by 95%, all other variables controlled for.

Table 4-2

Multinomial logistic regressions to predict cluster membership

	M0		M1		M2	
	<i>b</i> (SE)	<i>e^b</i>	<i>b</i> (SE)	<i>e^b</i>	<i>b</i> (SE)	<i>e^b</i>
<i>Cluster 2 – Regional users</i>						
Lower Austria	-0.62 (1.23)	0.54	-0.7 (1.23)	0.5	-0.62 (1.23)	0.54
Burgenland	1.89 + (1.01)	6.63	1.98+ (1.02)	7.2 1	2.03* (1.02)	7.58
Upper Austria	-0.44 (1.23)	0.64	-0.41 (1.23)	0.6 6	-0.32 (1.23)	0.73
Styria	5.39*** (0.72)	220	5.56*** (0.72)	259	5.72*** (0.72)	306
Carinthia	4.80*** (0.73)	121	5.02*** (0.73)	151	5.15*** (0.74)	172
Salzburg	-11.59 (420)	0	-11.58 (461)	0	-12.18 (669)	0
Tyrol	1.68* (0.84)	5.37	1.82* (0.85)	6.2	2.00* (0.85)	7.37
Vorarlberg	0.58 (1.23)	1.79	0.66 (1.23)	1.9 3	0.72 (1.23)	2.04
Age			0.05*** (0.01)	1.0 5	0.04*** (0.01)	1.05
Education			0.06 (0.05)	1.0 7	0.04 (0.05)	1.05
Gender			0.01 (0.16)	1.0 1	-0.17 (0.18)	0.85
Internal political efficacy					0.11 (0.08)	1.11
External political efficacy					-0.05 (0.06)	0.96

⁷ All odd ratios based on the final model (M2).

Political interest					0.09 (0.06)	1.09
Political orientation					0.05 (0.04)	1.06
Entertainment Preference (TV)					-0.00 (0.03)	1.00
Entertainment Preference (NP)					-0.11* (0.05)	0.90
Entertainment Preference (Net)					-0.02 (0.03)	0.98
Civic duty					0.18** (0.06)	1.20
Extraversion					-0.08 (0.09)	0.92
Need for cognition					-0.08 (0.08)	0.92
Constant	-5.07*** (0.71)		-7.54*** (0.79)		-7.98*** (1.03)	
<i>Cluster 3 – TV fans</i>						
Lower Austria	0.1 (0.16)	1.11	0.07 (0.18)	1.0 7	0.14 (0.18)	1.15
Burgenland	0.34 (0.28)	1.4	0.55+ (0.31)	1.7 3	0.64* (0.32)	1.91
Upper Austria	-0.70*** (0.2)	0.5	-0.54* (0.22)	0.5 8	-0.50* (0.22)	0.60
Styria	-0.75** (0.26)	0.47	-0.46+ (0.27)	0.6 3	-0.33 (-0.27)	0.72
Carinthia	-1.38*** (0.41)	0.25	-1.03* (0.42)	0.3 6	-0.88* (0.43)	0.41
Salzburg	-0.16 (0.25)	0.85	0.16 (0.27)	1.1 8	0.29 (0.27)	1.33
Tyrol	-0.24 (0.21)	0.79	0.03 (0.23)	1.0 3	0.18 (0.24)	1.20
Vorarlberg	-0.48+ (0.28)	0.62	-0.27 (0.31)	0.7 6	-0.17 (0.31)	0.85
Age			0.07*** (0.00)	1.0 8	0.07*** (0.00)	1.07
Education			0.13*** (0.03)	1.1 4	0.07+ (0.04)	1.07
Gender			0.45*** (0.13)	1.5 6	0.30* (0.14)	1.35

Internal political efficacy					-0.01 (0.06)	0.99
External political efficacy					0.07 (0.05)	1.07
Political interest					0.17*** (0.04)	1.19
Political orientation					-0.01 (0.03)	0.99
Entertainment Preference (TV)					-0.04 (0.02)	0.96
Entertainment Preference (NP)					-0.04 (0.03)	0.96
Entertainment Preference (Net)					-0.02 (0.02)	0.98
Civic duty					0.15*** (0.05)	1.16
Extraversion					0.06 (0.07)	1.06
Need for cognition					0.05 (0.06)	1.05
Constant	-1.12*** (0.11)		-5.15*** (0.30)		-6.36*** (0.58)	

Cluster 4 – Tabloid readers

Lower Austria	0.23 (0.17)	1.26	0.19 (0.18)	1.2 1	0.27 (0.18)	1.31
Burgenland	-0.03 (0.35)	0.97	0.04 (0.35)	1.0 4	0.13 (0.36)	1.13
Upper Austria	0.45** (0.17)	1.57	0.39* (0.18)	1.4 7	0.50** (0.18)	1.65
Styria	0.54** (0.20)	1.71	0.63** (0.20)	1.8 7	0.71*** (0.21)	2.04
Carinthia	0.05 (0.27)	1.05	0.26 (0.27)	1.2 9	0.31 (0.28)	1.37
Salzburg	0.31 (0.23)	1.36	0.43+ (0.24)	1.5 4	0.53* (0.25)	1.69
Tyrol	0.05 (0.22)	1.05	0.14 (0.22)	1.1 5	0.25 (0.23)	1.29
Vorarlberg	-3.13** (1.01)	0.04	-3.12** (1.02)	0.0 4	-3.09** (1.02)	0.05
Age			0.04*** (0.00)	1.0 5	0.04*** (0.00)	1.04

Education			-0.17***	0.8	-0.16***	0.86
			(0.04)	4	(0.04)	
Gender			-0.07	0.9	-0.08	0.92
			(0.11)	4	(0.12)	
Internal political efficacy.					0.01	1.01
					(0.05)	
External political efficacy					-0.04	0.96
					(0.04)	
Political interest					0.09*	1.09
					(0.04)	
Political orientation					0.10***	1.11
					(0.03)	
Entertainment Preference (TV)					-0.02	0.98
					(0.02)	
Entertainment Preference (NP)					-0.08**	0.92
					(0.03)	
Entertainment Preference (Net)					0.08***	1.08
					(0.02)	
Civic duty					0.10**	1.11
					(0.04)	
Extraversion					0.11+	1.12
					(0.06)	
Need for cognition					-0.12*	0.88
					(0.05)	
Constant	-1.36***		-2.70***		-4.09***	
	(0.12)		(0.24)		(0.51)	
<i>Cluster 5 – Heavy users</i>						
Lower Austria	-0.08	0.92	-0.11	0.8	-0.09	0.91
	(0.21)		(0.23)	9	(0.23)	
Burgenland	-0.06	0.95	0.15	1.1	0.25	1.28
	(0.41)		(0.43)	6	(0.44)	
Upper Austria	0.37+	1.45	0.45*	1.5	0.43+	1.54
	(0.20)		(0.22)	7	(0.22)	
Styria	-0.28	0.75	-0.01	0.9	-0.00	1.00
	(0.28)		(0.30)	9	(0.30)	
Carinthia	-0.07	0.94	0.31	1.3	0.28	1.33
	(0.32)		(0.34)	6	(0.35)	
Salzburg	0.25	1.29	0.60*	1.8	0.70*	2.02
	(0.28)		(0.30)	2	(0.30)	
Tyrol	-1.06**	0.35	-0.81*	0.4	-0.73+	0.48
	(0.37)		(0.39)	4	(0.39)	

Vorarlberg	-0.55 (0.38)	0.57	-0.38 (0.40)	0.6 8	-0.42 (0.40)	0.66
Age			0.08*** (0.01)	1.0 9	0.08*** (0.01)	1.08
Education			-0.06 (0.04)	0.9 5	-0.08+ (0.05)	0.92
Gender			0.18 (0.15)	1.2	0.07 (0.16)	1.07
Internal political efficacy					0.06 (0.07)	1.06
External political efficacy					0.03 (0.05)	1.03
Political interest					0.18*** (0.05)	1.19
Political orientation					0.03 (0.03)	1.03
Entertainment Preference (TV)					-0.09** (0.03)	0.91
Entertainment Preference (NP)					-0.06 (0.04)	0.95
Entertainment Preference (Net)					0.02 (0.03)	1.02
Civic duty					-0.06 (0.05)	0.95
Extraversion					0.32*** (0.08)	1.38
Need for cognition					-0.22*** (0.07)	0.80
Constant	-1.74*** (0.14)		-5.49*** (0.36)		-5.93*** (0.66)	
Cragg-Uhler Pseudo-R2	.304		.449		.492	
Δ Pseudo-R2			.145***		.043***	

Note. + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

$N = 2,829$. Reference cluster is Cluster 1 (occasional users). Reference category for state of residence is Vienna. NP=newspaper.

In a second step, we inserted demographic variables. All four groups are significantly older than the occasional users. In fact, age is the variable most strongly related to the choice for a non-avoiding news diet – except, for some

diets, the region of residence. Being 15 years older (which equals one standard deviation) increases the odds of being a regional user by a factor of 1.95, the odds of being a television fan by 2.66, the odds of being a tabloid reader by 1.87, and the odds of being a heavy user by 3.25. In addition, tabloid readers are less educated, whereas public-service TV fans seem to have enjoyed a comparably good education. Frequent public service TV viewers tend to be more often male, which is the only gender difference we find in our analysis.

In a final step, we entered the variables that we expected to have a substantial impact on the choice for a specific news diet. Although they seem to explain the choices to a much lesser extent than the sociodemographic variables do, they point to some interesting differences between the users of the respective news diets. Compared to occasional users, other groups are more interested in politics and feel a higher civic duty to keep informed. An increase of one single point on the seven-point political-interest scale increases the odds of being either a TV fan or a heavy user by 19%, or the odds of being a tabloid reader by 9%, all other variables being equal. The duty to keep informed has similar effects: A one point increase increases the odds of being a regional user by 20%, a TV watcher by 16%, a tabloid reader by 11%. Entertainment preferences seems to have some kind of ambivalent influence. For example, preferring entertainment on the Internet makes people chose for the tabloid diet – but preferring entertainment in print papers decreases the chances.

Internal and external political efficacy have no significant impact on any news diet. Political orientation also had no influence on all news diets except on the group of tabloid readers – but there, it is remarkably strong: Leaning only one point more to the right on the 11-point orientation scale increases the odds of belonging to the cluster of tabloid readers by 11%. Or the other way round, people with strong left-wing attitudes are very unlikely to be a tabloid reader. Also psychological traits explain the choice for a specific news diet: Compared to occasional users, tabloid readers and heavy users are more extravert, but have a lower Need for Cognition.

Interestingly, as cross-cluster comparisons of the model show, most user characteristics mainly predict whether people use *any* of the four other news diets compared to the one of the occasional users (see appendix). A change of these independent variables may have a huge impact on the fact whether someone uses a significant amount of news at all – but this change does not necessarily determine which media choices he makes exactly. For example, the members of all clusters except the occasional users do not differ in terms of

their political interest. It does not explain whether someone is a tabloid reader or a heavy user, for instance. But all of these groups are more interested in politics than the occasional users. In general, this can also be observed for the civic duty, although a higher civic duty also significantly *decreases* the chance of being a heavy user of all media types compared to all other diets.

Conclusions and discussion

This study investigated how different news media are combined in Austria and if these patterns can be interpreted as indicators of a fragmented media landscape. Interestingly, even a very fine-grained distinction between different news diets revealed only very limited signs of fragmentation: When dividing the sample into small groups of 10% or less of the sample size, indeed some groups can be identified that do not expose themselves to a wider range of news outlets. But even they show some overlap. Avoiding mainstream outlets is not a widespread phenomenon – and fragmentation thus seems to be rather limited.

One could argue that already the only four examples of sub-diets within the group of occasional users that we discussed are examples for fragmented patterns of media use. In the end, these groups have quite distinct preferences. But can the fact that less than 10% of the population use mainly tabloid media of – maybe – debatable quality, plus a few other news outlets, be interpreted as a sign for dangerous fragmentation?

In the end, the overwhelming majority of Austrians combines a variety of outlets that overlap – even if their respective main source of information differs. Thus, while the often romanticized era in which news everyone would read his or her daily newspaper and watch the (one) daily news broadcast might be over, considerable groups that use completely different media than the rest of the population do not emerge. One should keep in mind, however, that people tend to overreport news exposure in surveys (LaCour, 2012; Prior, 2009). In addition, the rather low response rate might also have caused a bias: We have to take into account that it is possible that people with higher levels of media use were especially likely to take part in the survey.

Keeping these limitations in mind, we can have a closer look into media consumption patterns in Austria. Specifically, they largely seem to be determined by the choice for specific offline outlets. We could not identify patterns of news consumption that were mainly characterized by the choice for specific online outlets. Even more strongly, the choice for offline outlets often defines online preferences: Those who read tabloid newspapers tend to visit these

newspapers' websites as well. The same pattern can be observed for readers of regional papers as well as for those who prefer information provided by public-service broadcasting.

If we discern five major groups of news Austrian news users – and as we showed, results do not differ substantially if we specify more groups – , we find occasional users and heavy users with no specific preference for news outlets, respectively, on the one hand, and three groups with distinct news outlet preferences on the other. Respectively, they are users of mainly regional media, of public-service television, and of mainly tabloids. The choice for one of these five diets seems to depend heavily on sociodemographics, especially the region of residence, but also on extraversion and Need for Cognition; on political interest, on the feeling of a civic duty to keep informed, and – less consistently – on entertainment preference. The influence of the last three variables suggests that the choice for *any* heavier media diet (as opposed to being only an occasional user of anything) is a fairly conscious one: Personal characteristics matter mostly for the choice to use news more often. They do so much less for the question *which* media diet someone chooses. This is not trivial, because it draws attention to the fact that the audiences of, for instance, tabloids as opposed to media which are deemed of higher quality might not differ that much.

Although in the Austrian media landscape many news outlets are said to have clear political profiles, the political orientation of the users did not matter much. The only exception we found was the one of the right-leaning group of tabloid readers. From a democratic point of view, our results thus suggest that content selectivity seems to play a rather weak role when it comes to people's means of keeping up with public discourse. The increasing number of choices in today's media environment may have less impact on the public discourse than feared.

Instead, the choice for a specific news diet in Austria first of all seems to be highly contingent on the region of residence. Plausibly, a regional newspaper may not often be read by people whose region it does not cover. But in Carinthia and Styria, readers of the regional newspaper *Kleine Zeitung* do not vary the other outlets they combine with this regional paper. Reading *Kleine Zeitung* rather indicates a news consumption pattern to which most inhabitants of these states adhere. This is remarkable because irrespective of the availability of print newspapers, right-leaning people could choose for right-leaning newspaper websites wherever they live. Instead, they seem to visit mainly websites of their regionally available newspaper. Therefore, like LaCour (2012) showed

for the US, also in Austria, local media might act as a powerful counterforce to ideological fragmentation. As an aside, what seems reassuring for offline media at first sight, though, may endanger them in the future: Just the fact that people use the corresponding online sources to their offline ones should make the latter prone to being substituted one day.

In the light of the finding that an actor's attitudes and preferences only partly explain the choice for a specific news diet, we argue that future research on news media use should more take into account structural and situational factors to explain media use, in addition to audience selectivity as a consequence of these individual interests and preferences. Especially the influence of political variables – like political interest, efficacy, orientation, but also civic duty – might be considerably lower than the influence of structural, and less commonly included, factors such as – in the Austrian case – the region of residence.

Furthermore, future research could focus on why people combine at first sight similar news outlets. While habits might play a role (LaRose, 2010), it also might be, for example, that politically interested people want to verify information from different sources or want to compare different perspectives and viewpoints.

On a more fundamental level, studies that investigate patterns of media use within the framework of fragmentation should come up with some clear criteria – or at least discuss them – when the patterns found can be interpreted as fragmented: How different do different news diets have to be and how tiny may distinct groups be before this becomes dangerous for the democratic discourse. On a more detailed level, it would also be necessary to look into fragmented patterns of use within a medium: Are people exposing themselves only to specific sections of an outlet? Together with that, analyzing the actual content people are exposed to would be fruitful.

However, a thorough normative discussion is still lacking. Based on theories of democracy, one would first have to discuss the necessary proportion of citizens, informed enough to keep democracy working. Second, it also would be necessary to agree on a standard of how to evaluate overlap of media use. For example, one could argue that as long as users of a specific news diet use one single outlet on a regular basis that is used by the majority of the population, the further composition of their news diet does not matter. Others might argue that this is not enough to connect different publics and that more overlap is needed.

While it was beyond the scope of our study to study the effects of the media choices people make, an empirical assessment of the consequences of these choices could help forming a basis for normative evaluations: Does their media diet enable people to talk about politics? How does it influence other forms of political participation? Such an approach would help to substantiate the often unwarranted complaint about fragmentation. Given the changes in media use that are yet to come, this seems a more than worthwhile undertaking.