

## A Longitudinal Study of Media Repertoires and Political Engagement in Switzerland

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*Abstract:* This study uses Swiss panel data between 2011 and 2020 to explore changes in media repertoires and the reciprocal effects of individuals with a minimal media consumption and their level of political engagement. It shows how different media repertoires evolve over time, while focusing on the transition between repertoires. It also explores how low media reliance connects to characteristics using cross-lagged effects analysis.

*Keywords:* Media consumption, political engagement, panel analysis, Switzerland

### Une étude longitudinale des répertoires médiatiques et de l'engagement politique en Suisse

*Résumé:* Cette étude utilise des données de panel suisses entre 2011 et 2020 pour explorer les changements dans les répertoires médiatiques et les effets réciproques des individus ayant une consommation médiatique minimale sur leur niveau d'engagement politique. L'étude montre comment les différents répertoires médiatiques évoluent au fil du temps et la transition entre les répertoires. Elle explore comment la faible utilisation des médias est liée à certaines caractéristiques politiques en utilisant une analyse d'effets croisés.

*Mots-clés:* Consommation des médias, engagement politique, analyse de panel, Suisse

### Eine Längsschnittstudie zu Medienrepertoires und politischem Engagement in der Schweiz

*Zusammenfassung:* Die vorliegende Studie nutzt Schweizer Paneldaten aus den Jahren 2011 bis 2020, um Veränderungen in Medienrepertoires sowie wechselseitige Effekte zwischen geringem Medienkonsum und politischem Engagement zu untersuchen. Sie zeigt, wie sich unterschiedliche Medienrepertoires und die Übergänge zwischen ihnen im Zeitverlauf entwickeln. Zudem analysiert die Studie, inwiefern ein niedriger Medienkonsum mit politischen Einstellungen und Formen politischen Engagements zusammenhängt, basierend auf kreuzverzögerten Effekten.

*Schlüsselwörter:* Medienkonsum, politisches Engagement, Panelanalyse, Schweiz

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## 1 Introduction: The Effect of Media Consumption on Political Engagement<sup>1</sup>

Both political engagement and news use are declining across many countries globally (Newman, 2023), sparking concerns about the health of democratic systems. Against this background, we are interested in assessing the causal relationship between media repertoires—defined as patterned combinations of media channels, which may or may not prioritize news—and levels of political engagement over time, with particular attention to individuals with low levels of media use who are often overlooked in previous research. Understanding how people’s media repertoires shape their political engagement, and vice versa, is thus essential.

The relationship between political engagement and news consumption patterns (media repertoires) has long been theorized through the Virtuous Circle Thesis (VCT), which posits that politically knowledgeable, trusting, and participatory individuals are more likely to consume public-affairs coverage, becoming more engaged in civic life (Norris, 2000). This perspective underscores a feedback logic in which higher levels of political engagement foster broader and more sustained news use, while increased exposure to news media, in turn, nurtures further engagement. The VCT also suggests the possibility of an inverse process, often described as a “downward spiral,” in which disengaged individuals avoid political news and, as a consequence, become even less engaged in civic life (e.g., Schumann & Arlt, 2025). Furthermore, the “media malaise” perspective (Newton, 1999) emphasizes a different mechanism of disengagement: rather than avoidance, it is the very exposure to negative or conflict-driven political news that fosters dissatisfaction, cynicism, and withdrawal (Elenbaas & De Vreese, 2008; Schuck, 2017). Although a growing body of literature has examined media repertoires and their linkages to political engagement (Delli Carpini, 2004; Strömbäck, 2022), clarifying the direction of causality is crucial because it determines whether media consumption itself can foster democratic engagement or whether political engagement primarily drives individuals’ media choices—a distinction with important theoretical and practical implications for media policy and civic interventions. The precise direction of causality between these two domains remains contested and continues to be an open question in contemporary research.

The habitual nature of news use (LaRose, 2010) is particularly likely to shift over long periods of time, as it is influenced by technological advancements, changing media landscapes, and individual life stages (Peters & Schröder, 2018). However, the prevailing causal direction between media repertoires and political engagement remains unclear, as much of the existing evidence comes from cross-sectional studies. Few panel studies offering short observation periods have examined the consequences of these long-term shifts in media repertoires for political engagement (Andersen et

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1 The data used for the study can be downloaded here: <https://www.swissubase.ch/en/catalogue/studies/6097/19347/overview>. The full code can be requested from the authors of the paper.

al., 2021; Dimitrova et al., 2014; Edgerly et al., 2018; Geers & Vliegthart 2021; Reiter & Matthes, 2023; Wolfsfeld et al., 2016). For instance, Wolfsfeld et al. (2016) found that individuals with richer political information repertoires have higher levels of political knowledge, efficacy, and participation. Politically interested individuals are more likely to use both traditional and social media for political information. Similarly, a panel study by Andersen et al. (2021) shows that political engagement is positively linked to media exposure across offline and online channels, with generational differences in news use patterns, a finding echoed in broader research on changing news consumption (Vulpius et al., 2023).

Taken together, these studies demonstrate important associations between media repertoires and political engagement, but their reliance on cross-sectional designs or short observation periods limits our understanding of how these relationships evolve over longer time spans. Addressing this gap, the present study relies on long-term survey panel data from the *Swiss Household Panel*<sup>2</sup> collected between 2011 and 2020. By focusing on media repertoires rather than isolated exposure measures, and by explicitly incorporating low media users as a distinct and theoretically relevant group, this dataset allows us to analyze changes in individuals' media repertoires and political engagement over a decade. According to previous research, the data will test the VCT framework within the media repertoire perspective and the study examines how combinations of media channels—capturing diversity, stability, and change over time—relate to patterns of political engagement. By using cross-lagged panel models, this study offers a robust way to track these reciprocal relationships over time. In particular, the panel captures not just how much news people consume, but the configurations of media sources that make up their repertoires—enabling us to assess diversity, stability, change, and especially patterns of minimal or selective media use—thus providing a holistic view of how media habits form and evolve.

## 2 Theoretical Background

### 2.1 Media Repertoires in a “High-Choice” Media Environment

As a result of media concentration, content digitalization, and public reliance on free news sources, patterns of media use (e.g., choice of source and media channel) have changed dramatically in recent years (Strömbäck et al., 2018; Vulpius et al., 2023). In today's high-choice media landscape, audiences often combine multiple platforms rather than relying on a single one, a phenomenon sometimes described as “news switching” (Mangold & Bachl, 2018; Strömbäck et al., 2018). To understand these patterns, scholars have increasingly turned to the concept of media repertoires,

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2 The *Swiss Household Panel* data can be downloaded here: <https://www.swissubase.ch/en/catalogue/studies/6097/19347/overview> (01. 11. 2024).

which refers to the set and its relationality of media sources an individual habitually consumes across various platforms and across their different life stages (Hasebrink & Domeyer, 2012). This approach contrasts with static or isolated consumption profiles, such as exclusive reliance on print newspapers, which fail to account for biographical change or multi-platform dynamics (Edgerly, 2015).

Repertoires reflect choices people make in response to shifts in the media environment, the introduction of new technologies, and individual life circumstances (Peters & Schröder, 2018). Findings from repertoire studies show that demographic factors (e.g., age) help differentiate groups, but individuals also shift between repertoires over time, particularly during periods of technological and social change (Eisenegger et al., 2020; Peters & Schröder, 2018; Westlund & Ghersetti, 2015). For instance, Ytre-Arne (2019) demonstrated how smartphones facilitated more dynamic and flexible repertoires.<sup>3</sup> Similarly, a panel study by Andersen et al. (2021) demonstrated generational differences: those socialized within traditional media differ in their news use patterns from those who grew up with newer sources like social media (see also Lorenz-Spreen et al. (2023) about relationships between the digital media and democracy). This perspective aligns with a substantial body of research on news consumption behavior and its changes over time (Vulpius et al., 2023). In Switzerland, Eisenegger, Schneider & Schwaiger (2020) distinguished between “old-world” repertoires (traditional media) and “new-world” repertoires (digital/global news), illustrating the diversity of media diets in the Swiss context.

Recent scholarship highlights the rise of “news avoiders” (Karlsen et al., 2020; Schäfer et al., 2023; Strömbäck, 2017) or “news-deprived” users (Eisenegger et al., 2020). Both terms describe individuals with very limited news exposure, either voluntarily (e.g., lack of interest, cognitive overload) or due to external constraints (e.g., access barriers).

Media repertoires are especially useful in providing a holistic view of patterned media use rather than isolated indicators of frequency or exposure or observation of media consumption during a specific life stage (Prior, 2009). Yet, the long-term stability of these repertoires remains an open question.<sup>4</sup> While most repertoire studies focus on short-term patterns or cross-sectional snapshots, much less is known about whether these repertoires persist over time or undergo lasting transformations. This matters because the long-term stability (or instability) of repertoires may shape broader societal outcomes such as political engagement, trust, and ultimately

3 Furthermore, citizens increasingly seek out (or are incidentally exposed to) information from social media sites (Shearer & Matsa, 2018) and from online browsers (see Blassnig et al. (2023)’s study of Google Search histories).

4 Switching news may not involve readers to completely abandon a given information source (e.g., printed newspapers), but rather to concurrently complement news sources (e.g., online news portals or social media threads). For instance, whilst people are increasingly likely to include social media in their news, social media serve as secondary news sources instead of main (or only) news sources (Schulz et al., 2022). Despite the high variety of news sources, it is worth noting that several countries are experiencing a steady decrease in news interest (Newman, 2023).

democratic participation (Avery, 2009; Ceron, 2015). Moreover, panel data allows us to pay particular attention to those with the least media consumption (often described as “news avoiders” or “news-deprived”) and to examine how their marginal repertoires relate to levels of political engagement.

## 2.2 The Relationship Between Media Repertoires and Political Engagement

Political engagement—defined as an individual’s capacity for political knowledge (e.g., Carpini & Keeter, 1996), opinion formation, participation in political activities (such as signing petitions, voting, or protesting), and the ability to exert political influence—is a cornerstone of democratic life. A large body of communication research has explored how media consumption shapes such engagement, often framed within the concepts of “media malaise” and the “virtuous circle” (Cappella & Jamieson, 2010; Curran et al., 2014; Norris, 2000; Robinson, 1976). The “media malaise” perspective argues that exposure to predominantly negative, sensational, or conflict-driven political news can foster cynicism, political distrust, and disengagement, thereby undermining democratic participation (Schuck, 2017). By contrast, the “virtuous circle” argument emphasizes that news consumption can enhance political knowledge and foster participation, thereby strengthening democratic life (Norris, 2000).

Although, traditional news outlets such as newspapers, radio, and television remain central components of most repertoires and continue to foster democratic engagement (Eveland & Scheufele, 2000; Kümpel et al., 2022; Langer & Gruber, 2021; Morgan & Shanahan, 2010)—digital environments complicate this relationship. Algorithmic filtering, incidental exposure, and selective avoidance challenge the positive associations between news use and civic outcomes (Fletcher & Nielsen, 2018; Vaccari & Valeriani, 2021). Audience fragmentation raises concerns about unequal access to political information and widening engagement gaps (Guess et al., 2020). Since the expanded range of repertoire components includes non-news entertainment (Prior, 2007), many individuals may increasingly gravitate away from news. As Van Aelst et al. (2017) argue, this shift risks reinforcing media inequalities with potential consequences for democratic engagement. Therefore, extending the debate to the concept of media repertoires offers a more nuanced lens for analyzing how diverse and habitual media use influences engagement. Rather than focusing on single sources, repertoires capture how news is embedded within broader patterns of media use (Gong et al., 2019; Strömbäck et al., 2018)

Empirical repertoire studies demonstrate these differences in practice. For instance, Strömbäck, Falasca and Kruikeimer (2018) identified Swedish repertoires (“minimalists,” “public news consumers,” “social media news consumers”) that corresponded to distinct levels of political engagement. Similarly, Castro et al. (2022) and Andersen et al. (2021) showed that repertoires centered on traditional media were linked to higher political knowledge. Yet, the growing number of news-

deprived individuals raises concerns about political disengagement (Eisenegger & Vogler, 2022).

Overall, studies tend to support the virtuous circle, showing positive relationships between media use and engagement (Gil de Zúñiga et al., 2012; Oser & Boulianne, 2020). However, most focus on relatively high media users, leaving open questions about minimal users. Recent scholarship also challenges the universality of the virtuous circle. For example, Lee & Valenzuela (2024) propose a “self-righteous cycle”, where users gain inflated confidence in their political knowledge regardless of accuracy. Importantly, the same feedback logic suggests a potential inverse dynamic: individuals with limited or declining repertoires are more likely to disengage politically, which in turn further diminishes their news use, reinforcing a downward spiral (Eisenegger et al., 2020).

Building on this reasoning, the present study investigates how media repertoires evolve and how they interact with political engagement. Specifically, it examines whether this relationship is unidirectional, bi-directional, or even inverse, by focusing on the reciprocal dynamics between low levels of news exposure within repertoires and political engagement. In doing so, the study tests whether engagement drives repertoire choice or whether repertoire membership constrains engagement, thereby extending the feedback logic of the virtuous circle theory.

### 2.3 The Present Study: Swiss Context

Switzerland offers a particularly compelling case for studying media repertoires and their interrelation with political engagement. Whereas previous research has often concentrated on election campaigns or short-term political activity, the present study employs long-term panel data to trace changes in media repertoires and their relationship to political engagement over time. This longitudinal perspective is especially pertinent in the Swiss context, where citizens encounter frequent opportunities for political participation (Marquis et al., 2022). Moreover, Switzerland provides a distinctive testing ground for theories of media use and engagement developed in other national settings, owing to its highly institutionalized system of direct democracy.

Switzerland’s political system is characterized by frequent referendums and initiatives at the federal, cantonal, and municipal levels, alongside parliamentary elections. This multilevel structure requires citizens to regularly engage with political decision-making, creating an environment that demands continuous political knowledge and attention. Voter turnout varies considerably: for example, participation in federal elections is relatively modest (around 45–47% in 2019–2023), while referendum turnout typically fluctuates between 40% and 60%, depending on issue salience (Haugsgjerd et al., 2021). These repeated opportunities for participation make Switzerland particularly well suited for examining how habitual media use and

stable repertoires contribute to sustaining democratic engagement beyond episodic electoral mobilization.

Like other Western countries, Switzerland's media landscape has undergone significant transformation, with increasing digitalization and a growing mix of traditional and online platforms (Vogler & Schneider, 2023). Citizens now assemble their political information repertoires from a variety of sources (Hasebrink & Domeyer, 2012). Investigating these repertoires in a context where democratic participation is frequent but not necessarily intense allows us to test whether the reciprocal dynamics proposed by the VCT also hold under conditions of ongoing, deliberative engagement rather than in systems where mobilization is largely electoral and episodic.

### 3 Methodology and Data

The following subsection presents the data used for the analysis. Then, the two-steps analysis is explained, including the extraction of media repertoires and the cross-lagged panel models.

#### 3.1 Panel Survey Data

The study relies on data from the *Swiss Household Panel* (SHP), a multi-thematic survey based on a random sample representative of the general population, which annually interviews the same people starting from the age of 14, and has done so since 1999, 2004, or 2013, depending on whether they belong to the first, second, or third samples. Data collection started in 1999 with a sample of 5 074 households containing 12 931 household members. In 2004, a second sample of 2 538 households with a total of 6 569 household members was added. Since 2013, the SHP contains a third sample of 4 093 households with 9 945 individuals and in 2020 a fourth sample has been added with 4 380 households and 7 557 individuals.

Data on media use were collected in four waves (2010–2011, 2013–2014, 2016–2017, 2019–2020) through a leisure activity module, while political engagement variables were collected in parallel political modules (2011, 2014, 2017, and 2020). This modular structure means that the two sets of measures are not always aligned in the same survey year, which is an important limitation for interpretation in longitudinal models.

The SHP has, from the beginning, used the telephone as its main survey mode. However, the web became a more prominent survey mode in the SHP's most recent subsample from 2020 (with approximately 53% responding via the web). Nevertheless, the web remains relatively rare in the older samples (available on request since 2010 with approximately 0.6% in 2010 and 7.9% in 2020).

### 3.2 Measurements

#### *Media Consumption Sources*

The operationalization of media repertoires builds on five media types: paper newspapers (item: “Read daily newspapers except free newspapers (paper newspapers)”), free news<sup>5</sup> (item: “Read free newspapers”), Internet news (item: “Reading the news online”), Internet radio and TV (item: “Listening to the radio or watching TV online (count also live broadcast emissions and their repetitions, but do not include YouTube and downloaded films)”), and magazines (item: “Read magazines”). Respondents were asked: “How often do you do the following leisure activities?”. While the framing as leisure activities may not directly capture political news consumption, these items reflect habitual engagement with general news sources, which has been shown to correlate strongly with political information exposure in prior studies (de Vreese & Boomgaarden, 2006; Shehata & Strömbäck, 2011).

The original response scales ranged as follows: 1 “almost every day,” 2 “several times a week,” 3 “several times a month,” 4 “several times a year,” and 5 “never.”<sup>6</sup> While this scale introduces potential measurement error due to varied interpretations of the categories, future studies could improve precision by asking for media use in specific days per week (Klein & Robison, 2020; Kruikemeier & Shehata, 2017). Moreover, the items do not enable us to differentiate between types of media (e.g., quality vs. boulevard newspapers or mainstream vs. alternative Internet sources). Nor do they capture the specific content consumed—meaning that a respondent engaging mostly with entertainment or sports news would still be recorded as a general news consumer. While this is a limitation, we consider these indicators valid proxies of political news exposure at the repertoire level, as they reflect individuals’ regular interactions with outlets where political information is routinely presented (Eisenegger et al., 2020). Therefore, media consumption, in this context, refers to the general level of engagement with media, whether it involves high, low, or selective consumption of political news (De Vreese & Boomgaarden, 2006).

For social media consumption, the survey item asked “Do you have an account on a social network site such as Facebook, Twitter, MySpace or LinkedIn?” and the answer options were “yes” or “no.” Although this binary item does not measure actual political news consumption, prior research shows that simply having access

5 Free news, such as the free newspaper 20 Minuten, are among the most widely read newspapers in Switzerland.

6 While not aligned with a traditional weekly frequency scale, the scale to measure media consumption from the SHP still holds value, especially in the context of panel data over a 10-year period. The scale captures a broader spectrum of consumption patterns over an extended period and provides a finer granularity in measuring consumption frequency beyond a weekly metric (often used in short-term panel surveys, such as election panels). Media consumption habits can vary widely among individuals, and the scale acknowledges this variability. As such, for a panel study conducted over a 10-year period, the available scale might be more suitable as it permits respondents to demonstrate changes in their media consumption habits in a more detailed manner over a longer timeframe.

to these platforms often results in incidental exposure to political content (Fletcher & Nielsen, 2018). Note that each of the mentioned social media have their core function and content logic. For example, Twitter (now X) and Facebook are known for their important political use. Other social media, such as Instagram and TikTok, were not specified by the item. This single binary measure lacks comparability to other media use variables, as it does not capture frequency of social media use, nor does it differentiate between types of use (e.g., for news or non-political content). Future research should include consistent frequency measures across all media types to ensure comparability and accuracy in assessing media habits.

Importantly, television and radio use were not included as distinct variables. Instead, their usage is partially reflected in the “Internet radio and TV” item, which suffers from the same limitation of not specifying political content. However, given the role of these media as common sources of political information in Switzerland (Udris & Eisenegger, 2023), we consider their inclusion relevant to capturing general exposure patterns, even if not all consumption is political in nature. Future studies should include these sources to better capture the full range of media consumption. The mentioned limitations must be considered when interpretation media repertoires.

### *Political Engagement*

We rely on three political engagement variables to build a mean score: political interest, participation in federal polls, and frequency of political discussions. These variables were selected based on the results of an exploratory factor analysis (EFA),<sup>7</sup> which showed that they load convincingly on a single dimension representing political engagement.

Individual political interest was measured using the following survey item: “How interested are you in politics?” (11-point scale from 0 “not at all interested” to 10 “very interested”). This variable is measured for the survey waves in 2010, 2013, 2016 and 2019. Participation in federal polls is measured with the question “Let’s suppose that there are 10 federal polls in a year. How many do you usually take part in?” (scale from 0 to 10). This variable is measured for the survey waves in 2011, 2014, 2017 and 2020. The frequency of political discussions is measured with the question “How often do you discuss politics with anyone living in your household” (11-point scale from 0 “never” to 10 “very often”). This variable is measured for the survey waves in 2011, 2014, 2017 and 2020.

The KMO (Kaiser-Meyer-Olkin) criterion showed suitability for factor analysis (0.73) and the eigenvalues suggested that two dimensions should be used. Table 1

<sup>7</sup> EFA initially included additional variables, such as the feeling of political influence (“How much influence do you think someone like you can have on government policy,” 11-point scale from 0 “no influence” to 10 “a very strong influence”), trust in government (“How much confidence do you have in the Federal government,” 11-point scale from 0 “no confidence” to 10 “full confidence”), party proximity (“Overall, do you feel close to any political party,” dichotomous “yes/no”), and satisfaction with democracy (“Overall, how satisfied are you with the way in which democracy works in our country,” 11-point scale from 0 “not at all satisfied” to 10 “completely satisfied”).

displays the results from the factor analysis (using oblimin rotation) and shows that political interest, the frequency of political discussions, and participation in federal polls load convincingly on one dimension. The results show similar patterns for each survey wave taken separately.

Table 1 Factor Analysis Results to Identify Political Engagement Relevant Variables

Variables	Dim. 1	Dim. 2	Complexity	Uniqueness
Political interest	0.81		1.00	0.33
Political discussions	0.70		1.00	0.53
Participation in popular votes	0.62		1.00	0.62
Party proximity	0.42		1.02	0.81
Trust in government		0.85	1.01	0.29
Satisfaction with democracy		0.72	1.01	0.45
Feeling of political influence		0.42	1.26	0.76

While these items differ in scale and reference frame, the EFA supports their aggregation into a mean score representing general political engagement. We acknowledge that they capture both attitudinal (interest), behavioral (voting), and interactional (discussion) dimensions, which may reduce construct purity. However, we chose this approach to maximize comparability across waves and to focus on stable and theoretically central indicators. Items such as protest participation, party identification, or political trust were either unavailable across all waves or did not load on the same factor. It should be emphasized that this index is not based on a single item, but on three conceptually related items combined into a composite measure. While this index omits forms of participation such as demonstrations or online activism (Heiss & Matthes, 2020), it remains a robust indicator of core engagement behaviors relevant to the Swiss context, where voting in referendums and discussing politics are central aspects of political life.

### 3.3 Analytical Strategy

#### *Extraction of Media Repertoires*

We use hierarchical agglomerative clustering (Ward's method on Euclidean distances) to extract media repertoires for each wave (2010, 2013, 2016, 2019), based on

the frequency of media-use variables. For 2010–2011, clusters are derived from the frequency of newspapers, free newspapers, magazines, internet news, and radio/TV, because a measure of social-media news use is not yet available. For the 2013–2014, 2016–2017, and 2019–2020 waves, we additionally include a social-media news-use item in the clustering. Prior to clustering, all frequency items were reverse-coded (1 = never, 5 = almost daily) and z-standardized within wave to ensure comparability across scales. This z-standardization allows us to treat social media on the same scale as the other media types once the frequency measure becomes available.

Clustering is performed separately for each wave to capture contextual changes in media supply and adoption (e.g., the rise of online news and social media). However, this wave-specific approach poses comparability challenges, as cluster definitions may shift across waves. To address this limitation, we (a) present standardized mean scores of each media type by cluster and wave; (b) align wave-specific clusters to a stable, theory-guided lexicon (e.g., “Limited,” “Legacy-dominant,” “Legacy+Free (text-centric),” “Legacy+Online (mixed),” “Digital-balanced,” “Multi-channel”); and (c) visualize individual transitions between clusters over time using Sankey diagrams. Transitions are derived from longitudinal linkage of individual respondents across consecutive panel waves and cross-tabulation of their cluster memberships over time. The Sankey diagrams, therefore, reflect descriptively aggregated transitions that can be qualitatively interpreted. This allows us to interpret repertoire stability as the persistence of individuals in similar usage profiles, even if the exact cluster composition changes slightly between waves.

The number of clusters was assessed by examining dendrograms and comparing the interpretability of 5–7 cluster solutions. The final choice yielded six repertoires in 2010–2011 and five repertoires in the subsequent waves. Clusters were labeled manually to reflect their dominant usage patterns (e.g., “limited users,” “traditional news users,” “digital integrators”). While this introduces some subjectivity, labeling was guided by the mean reliance on each media type, ensuring transparent interpretation.

We acknowledge that wave-specific clustering may generate empirical artefacts that complicate strict comparability. Alternative strategies (e.g., defining repertoires in the first wave and applying thresholds across later waves) were considered but are ill-suited to a period marked by structural changes in media adoption and item availability. We therefore rely on descriptive comparisons and transitions to approximate longitudinal stability.

### *Reciprocal Effects Between Media Repertoires and Political Engagement*

We analyze reciprocal effects between repertoires and political engagement using cross-lagged panel models, following the feedback logic of the VCT. We focus in particular on the repertoire with the least media use (“limited users”), since this is most relevant to disengagement dynamics.

First direction (repertoires to engagement): Linear regressions (OLS) are estimated with the normalized political engagement index (0–1) as the dependent

variable and a dichotomous indicator of membership in the “limited users” repertoire the key predictor (1 = limited user, 0 = other repertoires), controlling for previous engagement and covariates. We report standardized  $\beta$  coefficients, 95% confidence intervals to facilitate effect-size interpretation and cross-wave comparability.

Second direction (engagement to repertoires): Logistic regressions predict membership in the “limited users” repertoire (1 = limited user, 0 = other repertoires) from political engagement, controlling for previous “limited users” repertoire and covariates. We report odds ratios (ORs) with 95% CIs and average marginal effects (AMEs) per 1 SD change in engagement to provide effect sizes that are comparable in interpretation to the OLS results across model families.

Control variables are included. Age is recoded into cohorts based on the birth date: “1979 and after,” “1969–1978,” “1949–1968” and “1948 and before.” The models also include individual level variables, including left-right self-positioning (11-point scale going from 0 “left” to 10 “right”), level of education (considered as numeric in the analyses and updated for each wave), and gender (with “women” coded as 1 and “men” as 0). Education and political self-positioning are modelled as time-variant personal factors and are recoded to range between 0 (minimum value) and 1 (maximum value).

This specification directly tests both directions implied by the VCT: whether belonging to a repertoire characterized by limited media use predicts subsequent engagement (controlling for prior engagement), and whether lower engagement predicts subsequent entry into (or persistence within) limited-use repertoires (controlling for prior repertoire membership).

## 4 Results

The results are presented in two steps. First, the identified media repertoires are presented, as well as their evolution over time. Second, the relationship between the individuals having minimal media consumption and political engagement is discussed.

### 4.1 Identification of Media Repertoires

Media repertoires are formed based on media usage data for media consumption (including newspapers, free news, magazines, internet for news, online radio and online TV on the Internet, and social media). Respondents with similar media repertoires are combined inductively using cluster analyses. The users are each assigned to a cluster, whereby the greatest possible similarity of the users within the cluster and the greatest possible difference between the clusters are sought. Cluster analysis is conducted for each survey wave separately to consider contextual evolutions.

Table 2 Description of the Clusters by Survey Wave With the Mean Score of Each Type of Media

wave	group	newspaper	freewebs	magazine	internet	social media	radio/TV	manual label	notes	average media use	"limited media user"
2010-11	1	0.38	0.43	0.42	-1.11	-0.28	Print/hybrid-oriented	newspapers/freewebs/magazines+, internet-		-0.10	
2010-11	2	0.31	-0.13	-1.77	-0.24	-0.10	Minimalists	weak across, esp. magazines		-0.02	
2010-11	3	0.37	0.61	0.42	0.82	1.34	Omnivores	across-the-board strong, internet+		0.60	
2010-11	4	-2.26	0.11	-0.40	0.02	0.22	Low-newspaper users	newspapers very-, others-		-0.71	X
2010-11	5	0.44	-1.31	0.39	0	-0.14	Newspaper-centered	newspapers+, freewebs-, internet-		-0.29	
2010-11	6	0.30	0.64	0.36	0.76	-0.64	Free news user	freewebs+, internet+, legacy-		0.57	
2013-14	1	0.50	-0.23	0.08	-1.43	0.25	Print/hybrid-oriented	legacy+, internet-		-0.39	
2013-14	2	0.33	0.59	0.05	0.59	0.63	Omnivores	balanced, internet/social+, radio+		0.50	
2013-14	3	-1.89	0.01	-0.37	-0.06	0.67	Social Media reliant	newspapers-, social media+		-0.64	X
2013-14	4	0.49	-1.37	0.03	0.58	0.44	Newspaper-centered	newspapers+, freewebs-, internet/social-		-0.10	

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Wave	group	newspaper	freeweek	magazine	internet	social media	radio/TV	manual label	notes	average media use	"limited media user"
2013–14	5	0.45	0.58	0.17	0.60	0.52	-0.77	Free news user	freeweek+, internet/social~, radio-	0.54	
2016–17	1	0.57	-1.27	0.24	0.46	0.48	-0.04	Newspaper-centered	newspapers+, internet/social~, freeweek-	-0.08	
2016–17	2	-1.71	-0.11	-0.38	-0.07	0.67	0.10	Social Media reliant	newspapers-, social media+	-0.63	X
2016–17	3	0.57	-0.19	0.08	-1.77	0.30	-0.48	Print/hybrid-oriented	newspapers+, internet-	-0.46	
2016–17	4	0.42	0.49	0.02	0.58	0.66	0.97	Omnivores	balanced across all channels	0.49	
2016–17	5	0.49	0.57	0.15	0.42	0.46	-0.82	Free news user	newspapers+, freeweek+, digital~, radio-	0.49	
2019–20	1	0.65	-0.18	0.11	-1.96	0.28	-0.50	Print/hybrid-oriented	newspapers+, internet-	-0.50	
2019–20	2	-1.46	-0.18	-0.41	-0.02	0.74	0.09	Social Media reliant	newspapers-, social media+	-0.55	X
2019–20	3	0.54	0.67	0.58	0.46	0.56	0.13	Omnivores	across-the-board+	0.56	
2019–20	4	0.64	-1.11	0.58	0.38	0.48	-0.12	Newspaper-centered	newspapers+, freeweek-	-0.03	
2019–20	5	0.51	-0.01	-1.28	0.45	0.63	0.09	Free news user	internet/social media+, legacy~, magazines-	0.31	

Based on Table 2, each media repertoire can be described as follows:

**Print/hybrid-oriented:** This repertoire appears in all waves and is characterized by above-average use of print sources (newspapers, magazines) and only limited engagement with digital channels. Internet news use is consistently below average, and social media engagement remains marginal. Members of this group show a strong attachment to legacy formats, with only partial and cautious adoption of online platforms over time.

**Minimalists:** This repertoire is observed only in 2010–2011. It is defined by weak and uneven news consumption, particularly low engagement with magazines and online news. Compared to other groups, Minimalists consume across channels at very low levels, reflecting the least active media users in that wave.

**Social Media reliant:** This repertoire first emerges in 2013–2014 and persists across later waves. It is marked by low use of traditional outlets such as newspapers and magazines, but consistently high reliance on social media as a central source of news. Internet use is moderate to high, while radio/TV remains secondary. Social Media reliant users consistently fall into the category of “limited media users,” as their broader news consumption is comparatively weak outside social media.

**Omnivores:** Present in every wave, omnivores are across-the-board consumers with relatively high engagement in newspapers, free news, magazines, internet, and social media. Their balanced and broad media use makes them the most versatile repertoire, combining strong legacy use with robust digital adoption. Over time, omnivores maintain consistently high average media use, reflecting the most well-rounded information repertoire.

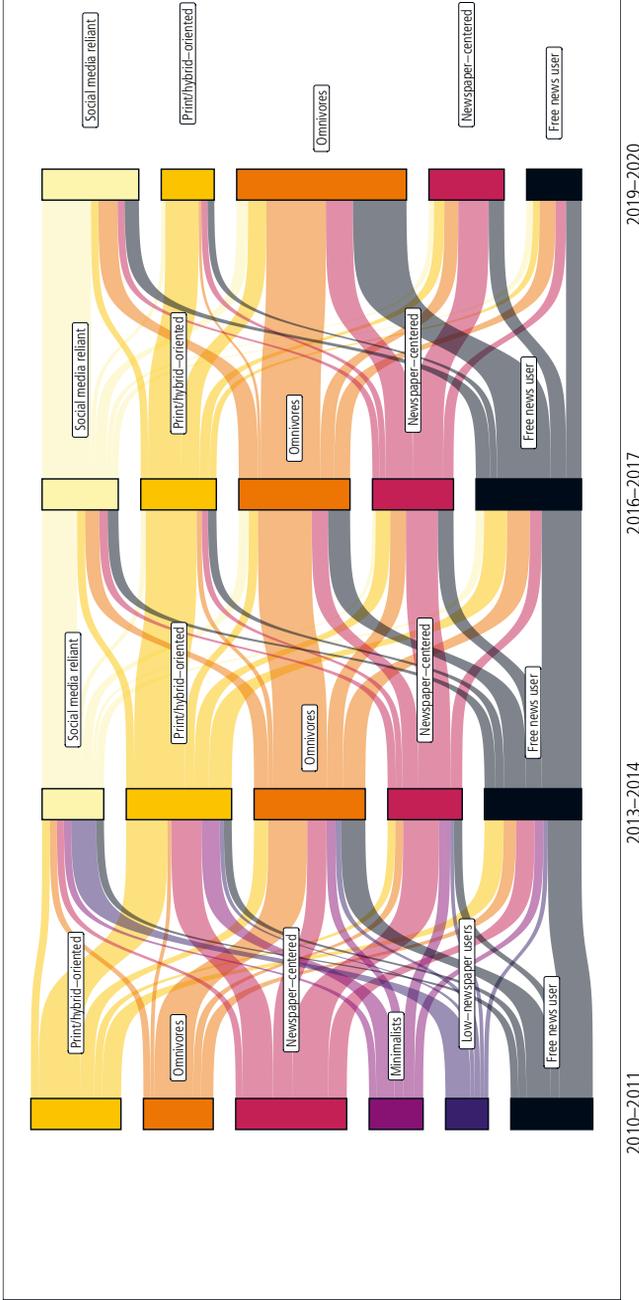
**Low-newspaper users:** This group appears only in 2010–2011. They show very low reliance on newspapers, combined with below-average use of most other channels. Their media diet is sparse and legacy-averse, which sets them apart from the other repertoires.

**Newspaper-centered:** This repertoire is visible across all waves. Members of this group rely strongly on newspapers, while keeping their engagement with other channels selective and moderate. They tend to consume less free news and use online channels more cautiously, often avoiding social media. Over time, their repertoire remains stable, signaling a persistent attachment to newspapers as the primary source of information.

**Free news users:** Also observed across waves, free news users show high reliance on free newspapers and a tendency toward digital channels (internet, social media) while reducing their consumption of traditional legacy outlets. Their radio/TV use is generally below average. This repertoire reflects a shift toward freely accessible and digitally available information sources.

The Sankey diagram illustrates the evolution of media repertoires over a 10-year period. Each column represents different time periods (2010–2011, 2013–2014, 2016–2017, and 2019–2020), and the colored bands correspond to different media repertoires. The flows between these columns show how users transition between

Figure 1 Sankey Diagram of Media Repertoires Over Survey Waves. Media Profile Over 10 Years



Note: Media repertoires are displayed during the four survey periods in the form of a Sankey diagram. The size of the lines is proportional to the share of respondents transitioning from one repertoire to another over time.

these media repertoires over time. These flows are calculated by tracking individuals' cluster assignments across consecutive waves and aggregating transitions into proportions. Because clustering was performed independently for each wave, these transitions reflect changes in individuals' media behavior rather than changes in the definitions of the repertoires themselves.

Several repertoires display notable stability. Omnivores have a strong presence in all waves and substantial continuity across time. Print/hybrid-oriented users also persist throughout the decade, although some members shift into omnivores or newspaper-centered repertoires. Newspaper-centered users are relatively stable as well, retaining many of their members across waves.

Other repertoires are more transient. Minimalists and low-newspaper users, both visible only in 2010–2011, almost entirely disappear in subsequent waves, with most individuals moving into newspaper-centered or print/hybrid-oriented repertoires. Free news users, by contrast, appear in all four waves but show greater fluidity, with frequent exchanges into and out of omnivores and newspaper-centered groups. The Social Media reliant repertoire, emerging in 2013–2014, persists through 2019–2020 and increasingly attracts members from other repertoires, reflecting the growing importance of social media in news consumption.

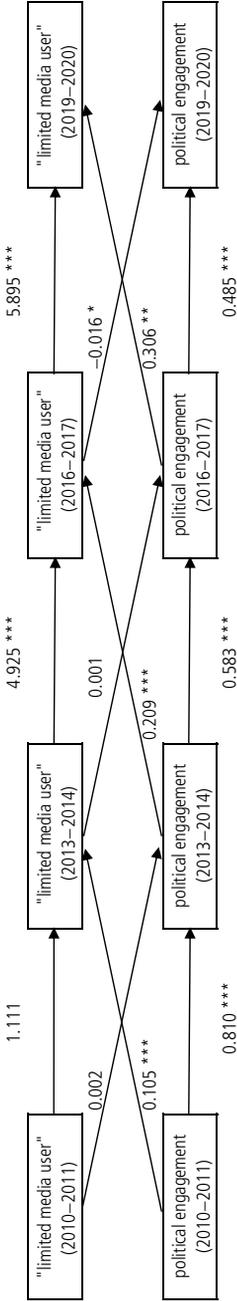
Of particular interest is the limited media user category, which in different waves is captured by groups such as low-newspaper users (2010–2011) and Social Media reliant users (2013–2020). Despite changes in media technology and the overall diversification of repertoires, a subset of the population continues to engage with news in a minimal and imbalanced way. This persistence highlights the enduring relevance of the limited media user repertoire as a distinct type of media behavior, and it is central to our analysis of how restricted media use shapes political engagement over time.

#### 4.2 Reciprocal Relationship Between Low Level of Media Consumption and Political Engagement

In this sub-section, we focus on the reciprocal relationship between the “limited media user” repertoire and the level of political engagement at the individual level. Figure 2 shows the results from cross-lagged models estimating the reciprocal effects (full table presented in the Annex 2). For linear models we report standardized betas (.10 small, .30 medium, .50 large), while for logistic models we report ORs (with 95% CIs) and standardized log-odds (exponentiated as standardized ORs) to enable comparisons of effect magnitudes with standardized betas.

The results show clear evidence that earlier levels of political engagement predict subsequent avoidance of the limited media user repertoire. For example, individuals with higher political engagement at  $t_1$  are significantly less likely to be classified as limited media users at  $t_2$  (OR = 0.105,  $p < .001$ ). This pattern persists across waves: higher engagement at  $t_2$  reduces the likelihood of adopting this repertoire at  $t_3$  (OR = 0.209,  $p < .001$ ), and engagement at  $t_3$  similarly predicts a lower

Figure 2 Cross-Lagged Effects Between the "Limited Media User" Repertoire and Political Engagement at the Individual Level (Standardized Coefficients)



Note: Figure 2 displays cross-lagged effects between the fact of being on the "limited media user" repertoire and political engagement at the individual level. Estimates are standardized coefficients. Each prediction also controls for age, gender, education level, and left-right self-positioning.

probability of limited media use at  $t_4$  ( $OR = 0.306, p < .01$ ). These consistent effects suggest that political engagement strongly shields individuals from drifting into the limited media user repertoire over time.

The reverse direction of influence from being a limited media user to later political engagement is weaker and less consistent. Belonging to the limited media user repertoire does neither significantly decrease subsequent political engagement at  $t_2$  ( $\beta = 0.02, p > .05$ ) nor at  $t_3$  ( $\beta = 0.01, p > .05$ ). However, this effect becomes statistically significant at  $t_4$  and displays a negative influence on engagement ( $\beta = -0.016, p < .05$ ). Thus, the impact of limited media use on political engagement is not uniform across time: it appears only during the last period.

Given the results from the cross-lagged regression models, political engagement exerts a more substantial and consistent influence on the likelihood of adopting a limited media user repertoire than the reverse relationship. The effects of political engagement on later limited media user are significant across all time points indicating that higher engagement strongly reduces the probability of becoming a limited media user. By contrast, the effects of limited media user status on later political engagement are largely absent, with only a small and statistically significant negative effect emerging in the last wave.

Although our research question centers on the reciprocal relationship between the limited media user repertoire and political engagement, the regression models in Annex 2 also incorporate the other media repertoires identified in Figure 1, allowing us to assess their effects on political engagement over time. The consistent negative cross-lagged association observed for LMUs does not apply to other repertoires. While some repertoires show isolated associations, none display the same persistent, statistically significant patterns. This specificity strengthens the robustness of our findings and underlines that the reciprocal relationship is unique to the “limited media user” repertoire.

## 5 Discussion and Concluding Remarks

Compared to studies that focus on single media platforms or aggregate levels of media consumption, the repertoire approach used here offers a more nuanced view of how different combinations of media use relate to civic life. This is consistent with earlier research which similarly identify distinct media repertoires that correspond to different levels of political engagement or participation. For instance, Edgerly et al. (2018) found that youth news repertoires strongly relate to their political activity, with avoiders showing the lowest engagement. Kim and Schwarze (2021) identified cross-platform repertoires in South Korea and showed that users of both traditional and social media exhibited higher civic engagement than avoiders. Lee and Valenzuela (2024) proposed a “self-righteous” circle, showing how social media news use may

foster participation not by informing, but by reinforcing users' perceived political competence and opposition to outgroups.

### 5.1 Directionality Between Media Repertoires and Political Engagement

The findings of this study offer critical insights into the dynamics between media consumption and political engagement, particularly within the context of the VCT (Norris, 2000). One of the most consistent findings is that political engagement reduces the likelihood of individuals becoming or remaining "limited media users." Across all observed time points, higher levels of political engagement significantly predict lower odds of adopting this repertoire. In contrast, the reverse path from limited media use to subsequent political engagement is weaker and only evident in the final wave, where the effect is small in size. This asymmetry indicates that political engagement is the stronger and more reliable driver in the reciprocal relationship.

While low media consumption (as observed in the "limited media user" repertoire) is associated with reduced political engagement at certain time points, these effects are not stable across the decade. Nevertheless, the final wave shows that being a limited media user can slightly depress subsequent engagement, which lends partial support to concerns raised by scholars of news avoidance and minimal media use: that consistent disengagement from media can contribute to a downward spiral of political disengagement (Schäfer et al., 2023; Strömbäck, 2017).

Taken together, the findings suggest that individuals who consume minimal amounts of news are less likely to engage politically, but the overall weight of evidence shows that political engagement itself plays the more decisive role in shaping media repertoires. This result adds nuance to earlier studies, showing that the downward spiral is not automatic. These findings are broadly in line with previous research showing that lower levels of media exposure are associated with lower political participation (Boulianne, 2016; Gil de Zúñiga et al., 2012), and that engaged citizens are more likely to seek out political content (Shehata & Strömbäck, 2011).

### 5.2 Theoretical and Practical Contributions

This study contributes to a novel theoretical perspective by examining these dynamics longitudinally through a repertoire-based framework. This study extends previous research in several important ways. First, it employs a longitudinal design spanning a decade, enabling us to observe how individuals transition between media repertoires over time—an approach not present in the aforementioned cross-sectional studies. Second, our use of cross-lagged models allows us to clarify the directionality of these relationships, providing stronger causal inference than prior cross-sectional work. This adds temporal and directional clarity to prior work that largely describes patterns at one point in time. This methodological lens therefore contributes to a richer understanding of media effects in complex, multi-source environments,

particularly by clarifying how habitual, long-term media use and civic engagement evolve together.

Practically, the findings suggest that promoting political engagement could be a more effective strategy for addressing news-disengaged populations. Public policies, educational initiatives, or media campaigns designed to promote political literacy and participation, alongside media literacy, could help counter disengagement (Eisenegger & Vogler, 2022). Additionally, news organizations and social platforms might consider tailoring content or improving accessibility to news for those with limited media exposure to create more inclusive and engaging environments that encourage political participation (Karlsen et al., 2020). This also underscores the continuing importance of journalistic quality for democratic outcomes. If politically engaged citizens rely on media that is of low quality, polarized, or lacking in diversity, engagement may reinforce division rather than strengthen democratic participation. However, for individuals who avoid news altogether, such efforts may have limited reach. In these cases, interventions beyond media itself (e.g., schools, community organizations, or civic initiatives) may be necessary entry points to foster political engagement and eventually reconnect citizens to news.

### 5.3 Measurement Considerations and Future Studies

We acknowledge that the chosen indicators reflect conceptually distinct facets of political engagement—namely, attitudinal interest, behavioral participation, and interpersonal political discourse. While they cluster empirically, they may be influenced by different underlying mechanisms (e.g., conscientiousness, conflict orientation, or civic duty). We also recognize that limiting this item to household discussions omits many relevant interactions, such as conversations with peers, colleagues, or through social media. While this is a constraint of the available data, we interpret household discussions as a proxy for interpersonal engagement more broadly, particularly given the habitual and recurring nature of intra-household communication.

While our results cannot demonstrate that interventions to increase political engagement will necessarily disrupt the cycle of disengagement, they do indicate that politically engaged individuals are much less likely to become limited media users. This pattern suggests that future research should further examine political engagement as a potential protective factor, alongside media literacy or access initiatives. In other words, fostering engagement may not guarantee a break in the cycle, but it appears strongly linked to more resilient media use.

### 5.4 Concluding Remarks

Taken together, the findings suggest that politically engaged citizens use news as an essential resource to inform themselves, which underlines that a healthy democracy depends not only on active political participation but also on the availability of high-

quality journalism offering diverse perspectives and a broad spectrum of opinion. These findings underscore the importance of addressing news avoidance and low media consumption as key factors in political disengagement. However, they also highlight that political engagement plays a central role in shaping media consumption patterns

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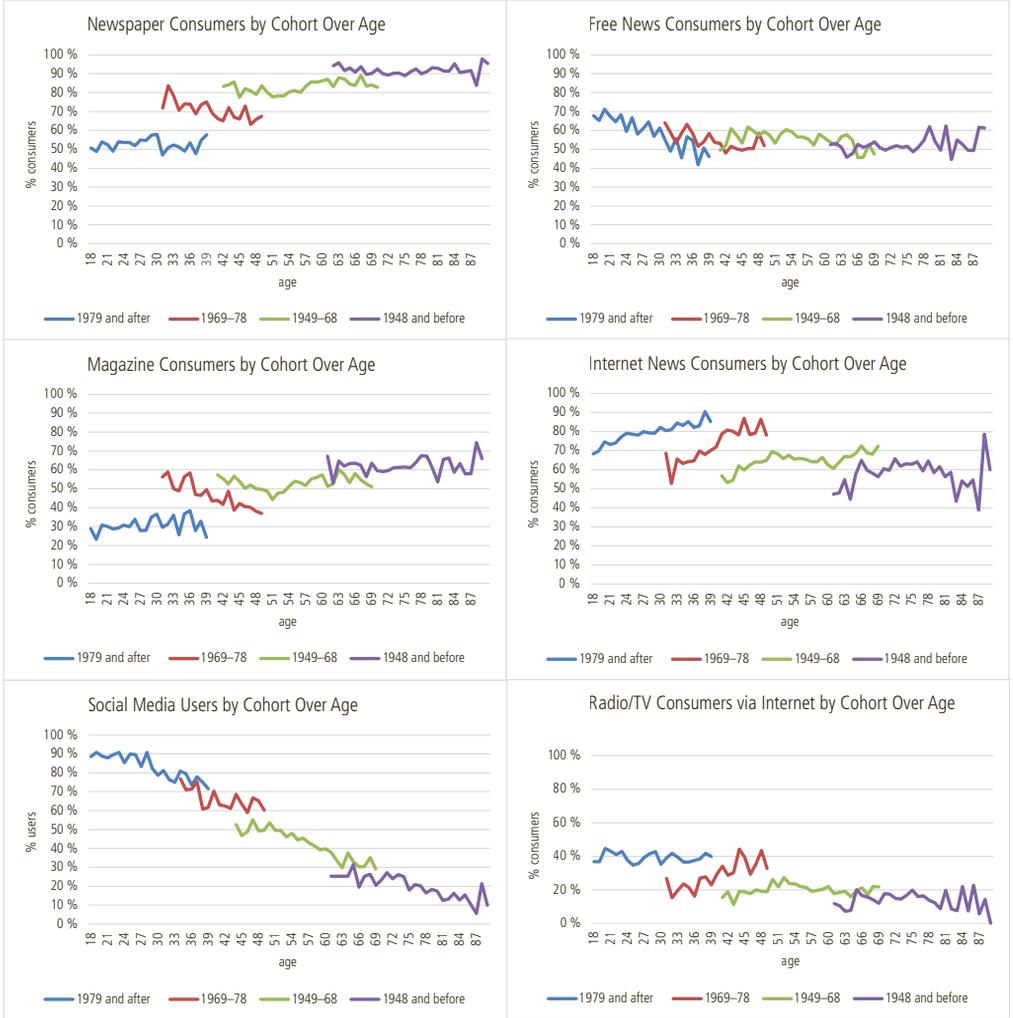
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## Appendix 1 Descriptive analyses

Descriptive findings of the consumption of each media source are displayed in graphical form to distinguish cohort effects from life-cycle effects. The media consumption of each source reflects the proportion of respondents who reporting that they use the media type “almost every day” or “several times a week,” as well as respondents indicating a “yes” for social media.

Younger cohorts typically do not consume newspapers (upper left pane). Conversely, newspapers are the main source of information for older cohorts. There is no such strong differentiation with respect to the consumption of free news between younger and older cohorts (upper right pane). The reliance on free news is also affected by age but there is a less clear cohort effect. This might be explained by the fact that free news is not a discriminative source between citizens of different age groups since access to free news is not a privileged channel of news for any cohort, except for very young people. The rest of the population tends to consume free news occasionally and, potentially, as a complementary source of information. The lesser reliance on free news for older people might be explained by older cohorts’ general willingness to rely on more quality and trustworthy news sources. The lower right pane displays clearly differentiates the age cohorts, with each older cohort showing the lowest reliance on the Internet for news consumption. The lower left pane displays the clearest separation between the different age cohorts, as magazines are almost entirely absent from the media repertoire of the older cohorts.

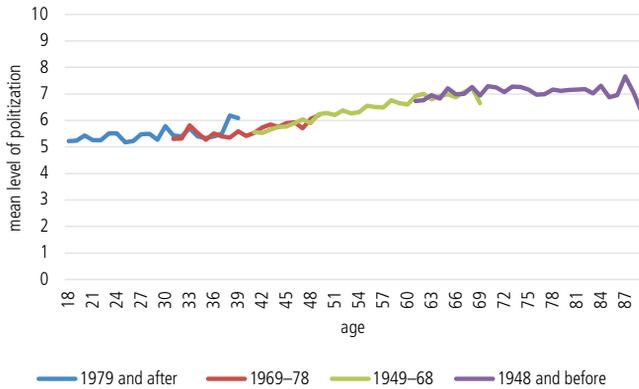
Figure A1.1 Descriptive Analysis of Political Engagement Level by Media Type and Age Cohort



Source: <https://www.swissbase.ch/en/catalogue/studies/6097/19347/overview> (01. 11. 2024).

Descriptive analysis of political engagement level is displayed in the same graphical form. It shows that the level of political engagement increases with age, from 5.5 for the younger cohort to 7.0 for the older cohort.

Figure A1.2 Mean Level of Politization by Cohort Over Age



Source: <https://www.swissbase.ch/en/catalogue/studies/6097/19347/overview> (01.11.2024).

Appendix 2

Table A2 Cross-Lagged Effects Between “Low Media User” Profile and Political Engagement Level (Standardized Coefficients)

	limited media users at t2	limited media users at t3	limited media users at t4	political engagement at t2	political engagement at t3	political engagement at t4
	logistic (odds ratios)	logistic (odds ratios)	logistic (odds ratios)	OLS (std coef.)	OLS (std coef.)	OLS (std coef.)
<b>Lagged-variables</b>						
<b>Media profiles at t1 (ref. legacy media user)</b>						
Low-newspaper	9.812 ***	4.388 ***	2.327 **	-0.020 *		
Minimalists	1.111	1.305	1.140	0.002		
Newspaper-centered	0.527 **	0.694	0.904	0.012		
Omnivores	0.789	1.304	0.948	-0.007		
Print/hybrid-oriented	0.643	0.787	0.985	0.002		
<b>Media profiles at t2 (ref. legacy media user)</b>						
Newspaper-centered		1.099	1.121		-0.005	
Omnivores		1.042	0.955		-0.001	

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*Continuation of Table A2.*

	limited media users at t2	limited media users at t3	limited media users at t4	political engagement at t2	political engagement at t3	political engagement at t4
	logistic (odds ratios)	logistic (odds ratios)	logistic (odds ratios)	OLS (std coef.)	OLS (std coef.)	OLS (std coef.)
Print/hybrid-oriented		0.619 *	0.819		-0.006	
Social Media reliant		4.925 ***	2.818 ***		0.001	
Media profiles at t3 (ref. legacy media user)						
Newspaper-centered			0.704			0.012
Omnivores			1.354			0.006
Print/hybrid-oriented			0.889			-0.007
Social Media reliant			5.895 ***			-0.016 *
Political engagement over time						
Political engagement at t1	0.105 ***			0.810 ***	0.288 ***	0.154 ***
Political engagement at t2		0.209 ***			0.583 ***	0.210 ***
Political engagement at t3			0.306 **			0.485 ***
Control variables						
Cohorts (ref. 1979 and after)						

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Continuation of Table A2.

	limited media users at t2	limited media users at t3	limited media users at t4	political engagement at t2	political engagement at t3	political engagement at t4
	logistic (odds ratios)	logistic (odds ratios)	logistic (odds ratios)	OLS (std coef.)	OLS (std coef.)	OLS (std coef.)
1948 and before	0.153 ***	0.310 ***	0.371 ***	0.022 **	0.029 ***	0.018
1949–1968	0.548 ***	0.533 ***	0.433 ***	0.005	0.019 **	0.019 *
1969–1978	0.788	0.831	0.566 **	-0.007	0.005	0.018 *
Gender: women (ref. men)	1.161	1.198	1.287	-0.014 **	0.001	0.003
Education level						
Education at t1	0.930			0.011		
Education at t2		0.837			0.025 **	
Education at t3			0.614			0.041 ***
Left–right political positioning						
Position at t1	1.963			0.007		
Position at t2		2.155 *			-0.023 *	
Position at t3			0.708			-0.045 ***

Continuation of Table A2 on the next page.

Continuation of Table A2.

	limited media users at t2	limited media users at t3	limited media users at t4	political engagement at t2	political engagement at t3	political engagement at t4
	logistic (odds ratios)	logistic (odds ratios)	logistic (odds ratios)	OLS (std coef.)	OLS (std coef.)	OLS (std coef.)
Constant	0.538	0.357 **	2.327 **	0.121 ***	0.077 ***	0.098 ***
Observations	2810	2257	1756	2574	1914	1478
R2				0.73	0.77	0.77
F Statistic				575.900 *** (df = 12; 2561)	514.300 *** (df = 12; 1901)	362.800 *** (df = 13; 1464)
Pseudo-R2 (Nagelkerke)	0.27	0.25	0.27			
Log Likelihood	-844.588	-742.653	-634.948			
Akaike Inf. Crit.	1715.176	1519.306	1311.896			

Source: <https://www.swissubase.ch/en/catalogue/studies/6097/19347/overview> (01.11.2024).

## Appendix 3

Table A3 Descriptive Statistics Across Waves

Variable	Wave	N	%	Missing	Mean	Std.dev	Median
Education (0–1)	t1	5454		0.00	0.54	0.31	0.50
Education (0–1)	t2	3944		1510.00	0.61	0.29	0.60
Education (0–1)	t3	3282		2172.00	0.65	0.28	0.60
Education (0–1)	t4	2951		2503.00	0.67	0.28	0.70
Left-right self-placement (0–1)	t1	4734		720.00	0.48	0.20	0.50
Left-right self-placement (0–1)	t2	3617		1837.00	0.48	0.20	0.50
Left-right self-placement (0–1)	t3	3057		2397.00	0.48	0.20	0.50
Left-right self-placement (0–1)	t4	2737		2717.00	0.46	0.20	0.50
Political engagement (index. 0–1)	t1	3999		1455.00	0.61	0.22	0.67
Political engagement (index. 0–1)	t2	3123		2331.00	0.63	0.21	0.67
Political engagement (index. 0–1)	t3	2539		2915.00	0.65	0.21	0.70
Political engagement (index. 0–1)	t4	2244		3210.00	0.67	0.21	0.70
Age (0–1. cohort-scaled)	t1	4242		1212.00	0.35	0.22	0.37
Age (0–1. cohort-scaled)	t2	3330		614.00	0.36	0.21	0.37
Age (0–1. cohort-scaled)	t3	2812		470.00	0.37	0.20	0.39
.							

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Limited media user	t1	0	4736	0.87				
Variable	Wave		N	%	Missing	Mean	Std.dev	Median
Limited media user	t1	1	718	0.13				
Limited media user	t2	0	3289	0.83				
Limited media user	t2	1	655	0.17				
Limited media user	t3	0	2663	0.81				
Limited media user	t3	1	619	0.19				
Limited media user	t4	0	2271	0.77				
Limited media user	t4	1	680	0.23				
Media repertoire (profile)	t1	Newspaper-centered	1177	0.22				
Media repertoire (profile)	t1	Print/hybrid-oriented	1069	0.20				
Media repertoire (profile)	t1	Free news user	978	0.18				
Media repertoire (profile)	t1	Low-newspaper users	763	0.14				
Media repertoire (profile)	t1	Omnivores	749	0.14				
Media repertoire (profile)	t1	Minimalists	718	0.13				
Media repertoire (profile)	t2	Omnivores	920	0.23				
Media repertoire (profile)	t2	Print/hybrid-oriented	893	0.23				
Media repertoire (profile)	t2	Free news user	857	0.22				
Media repertoire (profile)	t2	Social Media reliant	655	0.17				
Media repertoire (profile)	t2	Newspaper-centered	619	0.16				
Media repertoire								

*Continuation of Table A3 on the next page.*

*Continuation of Table A3.*

Media repertoire (profile)	t3	Free news user	757	0.23				
Variable	Wave		N	%	Missing	Mean	Std.dev	Median
Media repertoire (profile)	t3	Social Media reliant	619	0.19				
Media repertoire (profile)	t3	Print/hybrid-oriented	553	0.17				
Media repertoire (profile)	t3	Newspaper-centered	545	0.17				
Media repertoire (profile)	t4	Omnivores	1060	0.36				
Media repertoire (profile)	t4	Social Media reliant	680	0.23				
Media repertoire (profile)	t4	Newspaper-centered	457	0.15				
Media repertoire (profile)	t4	Free news user	387	0.13				
Media repertoire (profile)	t4	Print/hybrid-oriented	367	0.12				
Sex	t1	Woman	2163	0.51				
Sex	t1	Man	2079	0.49				
Sex	t2	Woman	1714	0.51				
Sex	t2	Man	1616	0.49				
Sex	t3	Woman	1435	0.51				
Sex	t3	Man	1377	0.49				
Sex	t4	Woman	1297	0.51				
Sex	t4	Man	1234	0.49				
Cohort	t1	1949–1968	1822	0.43				
Cohort	t1	1979 and after	1148	0.27				
Cohort	t1	1948 and before	646	0.15				

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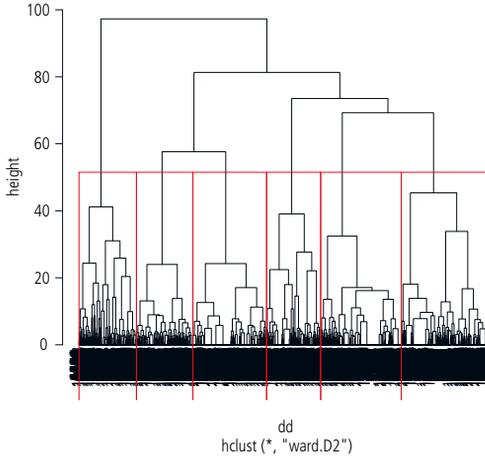
*Continuation of Table A3.*

Variable	Wave	N	%	Missing	Mean	Std.dev	Median
Cohort	t2 1949–1968	1450	0.44				
Cohort	t2 1979 and after	819	0.25				
Cohort	t2 1948 and before	535	0.16				
Cohort	t2 1969–1978	526	0.16				
Cohort	t3 1949–1968	1308	0.47				
Cohort	t3 1979 and after	600	0.21				
Cohort	t3 1969–1978	462	0.16				
Cohort	t3 1948 and before	442	0.16				
Cohort	t4 1949–1968	1204	0.48				
Cohort	t4 1979 and after	524	0.21				
Cohort	t4 1969–1978	421	0.17				
Cohort	t4 1948 and before	382	0.15				

Source: <https://www.swissbase.ch/en/catalogue/studies/6097/19347/overview> (01. 11. 2024).

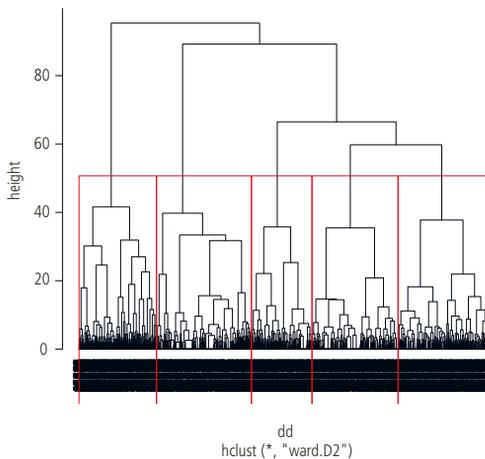
Appendix 4 Dendograms for Media Repertoires Extraction

Figure A4.1 Dendrogram for the Period 2010–2011



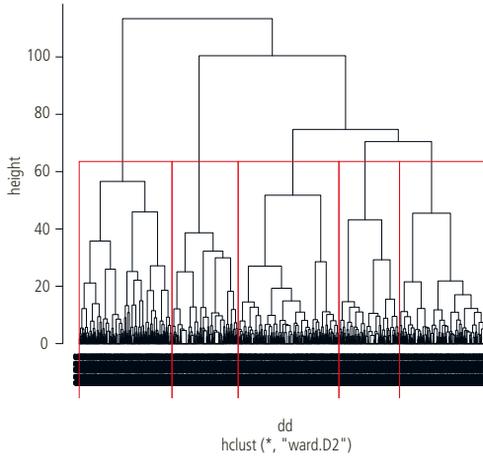
Source: <https://www.swissbase.ch/en/catalogue/studies/6097/19347/overview> (01. 11. 2024).

Figure A4.2 Dendrogram for the Period 2013–2014



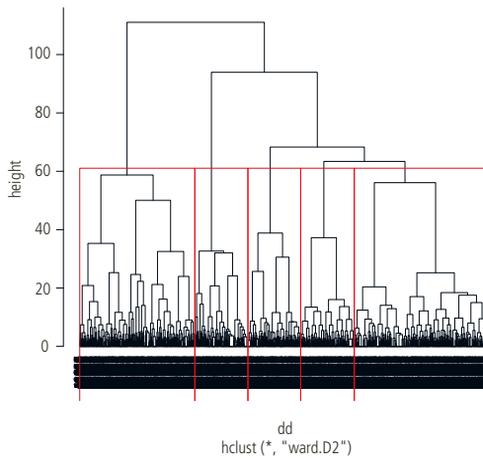
Source: <https://www.swissbase.ch/en/catalogue/studies/6097/19347/overview> (01. 11. 2024).

Figure A4.3 Dendrogram for the Period 2016–2017



Source: <https://www.swissbase.ch/en/catalogue/studies/6097/19347/overview> (01.11.2024).

Figure A4.4 Dendrogram for the Period 2019–2020



Source: <https://www.swissbase.ch/en/catalogue/studies/6097/19347/overview> (01.11.2024).