



## Political Ideology in Projection Networks: Developing the 'News Niche' as Individual, Audience, and Organizational Effects on News Selection

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Abstract

Ideological fragmentation in news audiences has been studied by looking at either individual’s media selections, or by observing structural patterns of attention to news at the macro level. While the former set of studies typically shows evidence of fragmentation, the latter generally does not. This study engages with the mixed evidence on audience fragmentation through multilevel conceptualization and analysis. We first develop a theoretical framework for studying politically motivated news selection at the individual, audience, and organizational levels. In doing so, we revitalize the classic notion of ‘niche news’ to account for the actuary mechanisms of algorithms and content filtering systems that shape people’s options for news. We then introduce a methodology for identifying political valence in projection networks with community detection techniques. Multilevel analysis with survey data from the United States reveal three distinct-but-overlapping niches. We do not find support for fragmentation along ideological lines. Instead, news consumption within a niche is reflected in competition and symbiosis at the organizational level, and the ideology of others within the same niche at the audience level. Results highlight the complex ecology of system-level factors on news selection.

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**Political Ideology in Projection Networks: Developing the ‘News Niche’ as Individual, Audience, and Organizational Effects on News Selection**

Politically motivated news consumption has received less attention in the academic literature due to the prominence of other topics such as incidental exposure and misinformation. However, the influence of partisan media remains strong in an environment that favors clicks and scrolls over local news or public service journalism. Legacy political press and television brands dominate Facebook (Nicholson, 2022), and cable still serves as a news source for many Americans (60%; Forman-Katz & Matsa, 2022), featuring ideologically slanted narratives during primetime coverage (Benkler et al., 2018). Partisan media play a central role in concerns about social fragmentation; it has been linked to sectarianism and the decline of democratic institutions (Finkel et al., 2020). Despite limited recent research, crucial questions about partisan selectivity and audience fragmentation persist.

Previous scholarship on this topic focused on two separate, but related areas: (1) The individual psychology of media selection, which shows that partisans trust and pay attention to attitude-consistent news while avoiding 'mainstream' outlets with less opinion-based content (Garrett, 2009; Knobloch-Westerwick & Meng, 2009; Stroud, 2011; Jurkowitz et al., 2020; Flaxman et al., 2016); and (2) The system-level patterns in audience dispersion— so-called ‘overlap’ or the audience-centric approach—which suggests that audiences are not as fragmented as assumed (Fletcher & Nielsen, 2017; Webster, 2011; Webster & Ksiazek, 2012). However, the audience-centric approach incorrectly equates structural fragmentation with ideological fragmentation, and thus it draws conclusions that sometimes contradict claims based on the study of individual media preferences. This study argues that we can better understand audience fragmentation by integrating these two approaches. We propose examining the individual, group, and organizational-level effects on partisan selectivity (DeVito, 2017; Ohme & Mothes, 2020).

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By employing 'community detection' algorithms (Mukerjee, 2021; 2022) with multilevel analysis, we show how partisan media preferences form without structural fragmentation in news audiences. While media audiences often cluster around organizations with shared traits (Del Vicario et al., 2017; Schmidt et al., 2017), the role of political ideology in this process remains an open question.

This paper advances theory in this area by revisiting and elaborating upon an older concept—the *news niche*. The concept of a news niche isn't novel—Stroud's (2011) now classic *Niche News* examined selective exposure in the United States in the mid-2000s. But our approach also borrows from the audience-centric approach (Fletcher & Nielsen, 2017; Ksiazek, 2011), which looks at the shared audience for a given set of news organizations. We propose a novel framework that connects these related literatures, viewing the news niche as a semi-structured 'ecology' influenced by competition and symbiosis among news outlets at the organizational level and shared traits among the audience. Using open-ended survey data (N = 1,444), we develop and test the impact of political ideology on news selection across different levels of analysis. Our network analysis and multilevel regression results uncover the complex nature of media selection, where partisan news choices depend not only on one's own political ideology, but also on the ideology of others within the same news niche.

**Audience Overlap and Methodological Innovation**

*Audience overlap* or *duplication* is concerned with the tendency for the audience of one program to be 'duplicated' in another. This approach views news audiences as the interaction between system-level structures and individual preferences (Fletcher & Nielsen, 2017). It typically uses network analysis techniques that treat news organizations as nodes and the shared audience members as 'edges' in a projection network. Hence, scholarship in this area analyzes

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social and political division in the form of information silos created by the high-choice media environment (Prior, 2007). In contrast to selective exposure theory, which looks at personal motivations for media consumption (e.g., Knobloch-Westerwick & Meng, 2009), audience overlap studies are concerned with macro-level patterns of attention. The advantage of this method is that it enables researchers to observe the extent to which audiences are concentrated or dispersed.

This approach has uncovered several important conclusions. First, macro-level patterns of shared attention to news do not show ideological silos (Fletcher & Nielsen, 2017; Webster & Ksiazek, 2012). Citing both large-scale datasets of online linking behaviors and survey responses, there is considerable evidence of heterogeneous news consumption, resulting in a substantial degree of audience overlap across media channels. A second development clarifies these findings. Scholars have devised techniques for filtering the otherwise noisy data associated with larger sample sizes, revealing a core, ‘backbone’ structure of news audience attention (Majó-Vázquez et al., 2019; Mukerjee et al., 2018). The defining feature of the core network is a power law distribution, where a small set of legacy media organizations hold a majority share of the market, and the rest compete for small audience shares along the ‘long tail’ of the distribution. It follows that the number and scope of dominant organizations will vary from system to system, which implies that structural features of a media system—and not the ideologies of individuals alone—affect the degree of audience fragmentation (Fletcher & Nielsen, 2017). In this context, we refer to media systems in the ‘confrontational sense’—they have specific features which can be identified for the purposes of comparing to other media systems (Mancini, 2015).

### Network Position and Community Detection

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One limitation with the overlap approach is that scholars equate structural fragmentation and ideological fragmentation. This assumption represents a major oversight, as most studies that employ network analysis do not account for the editorial, ideological, or other possible organizational features that influence the valence of media content. To address this gap, recent studies have developed methods for accounting for a) the ideological valence of news organizations within the network and b) observing individuals’ position within that network. Positionality—otherwise defined as *attention centrality*, a person’s news selections relative to the center of the news attention network—is one factor that explains the overall ideological valence of one’s news habits (Author, YYYY). This methodological innovation centers on characterizing individuals according to their roles within a broad network, bridging the gap between audience-level and individual-level studies. In contrast to prevailing thinking that partisan news is ‘peripheral’ to an imagined ‘center’ of politically neutral media, findings from positionality studies show that media outlets at the center of the attention network also carry ideologically slanted content, which means that even people with a more ‘central’ positionality are exposed to a healthy dose of partisan news. For example, Fox News often amplifies radical right-wing talking points (Benkler et al., 2018) and their position as a dominant force in the market means that people are exposed to ideological content without self-isolating or traveling to the extreme edges of their information environment.

This study further extends work on positionality by connecting to emerging trends in community detection algorithms (Del Vicario et al., 2017; Mukerjee, 2021, 2022; Schmidt et al., 2017). The underlying assumption is that media outlets belonging to the same structural cluster reflect a ‘community’ that shares some characteristic distinct from the rest of the network. This phenomenon has been observed for online news in the United Kingdom, where people formed

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two groups based on patterns of attention to news about Brexit (Del Vicario et al., 2017) as well as on Facebook, as users tend to cluster into communities based on regular visits to a small subset of news outlets (Schmidt et al., 2017). However, only recently have scholars identified reliable clustering algorithms for news audience projection networks (Mukerjee, 2021). In addition, there is opportunity for theory building in this area, as scholars have moved beyond the observation of structure alone, and now argue for applying concepts of audience behavior to community detection. In India, for example, so-called ‘reading publics’ form based shared motivations, language, and identity (Mukerjee, 2022). This study applies this logic to the question of ideological fragmentation as it manifests at multiple levels of the news audience.

### **Developing the News Niche as Multilevel Phenomena**

Findings from multiple national contexts find that across different media systems, only a small percentage of citizens are in an ideological filter bubble (Arguedes et al., 2022; Fletcher & Nielsen, 2017). However, it is premature to conclude that these results provide evidence against fragmentation; rather, it is possible that fragmentation occurs in other ways that align more closely with the networked relations among individuals and media organizations. Audiences are now displaced from traditional programming as media consumption is now facilitated by networked connections and algorithmic curation of content (Thorson & Wells, 2016). These systems have an ‘actuarial’ dimension in that one individual’s choices may affect the future selection of content for some similar individual (DeVito, 2017). This audience dynamic has important implications for audience fragmentation, as selective and curatorial processes may produce distinct audience segments, even if those segments do not manifest along political lines.

To account for these developments, and to address theoretical shortcomings with current approaches to audience fragmentation, we introduce an expanded application of the concept of

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the news niche. The idea of a news niche is not new. For example, Stroud (2011) conceptualized it as the product of individual-level tendencies toward partisan selective exposure and their interactions with the increasing competition and segmentation of media channels. Borrowing from this approach, we assume that a news niche is the outcome of market forces and people’s positionality within a media system. We also build on past uses of the concept by incorporating a sociotechnical dimension: News niches are constituted by social and algorithmic processes of content curation in online spaces. Thus, news niches arise not only from the relations between organizations and individuals, but also from the technological infrastructure of major news platforms, including search engines, aggregators, news apps, and social media sites.

This conceptualization of the news niche allows for an audience that is unified by a shared experience but is also fragmented by the qualitative patterns of attention to unique sets of news organizations. Niches can be characterized by a high degree of audience overlap (or shared attention) within and between each niche. That is, while audiences may not be entirely fragmented along ideological lines (Fletcher & Nielsen, 2017; Webster & Ksiazek, 2012), we should be able to identify segments within the overall attention network in which individuals and organizations are tied together via the general characteristics of the network composition. Those ties create media experiences shared by those within the same audience niche, and by default these experiences will be more similar relative to those outside of the niche. Thus, the current study takes as its starting point the question of whether audience niches of this nature exist, and, if they do, seeks to understand their role in creating slanted information environments.

**The News Niche, Algorithms, and Individuals**

Two key individual-level factors influencing news selection within a niche are political interest and technologically influenced media habits. Political interest has long been considered



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essential for active news consumption, and as media choices expand, social cleavages may lead to gaps in attention to news, political knowledge, and participation (Prior, 2007). In this study, we treat political interest as a stable characteristic that affects politically motivated news selection (Prior, 2010). Research in this area has yielded two main conclusions. First, people tend to choose news that aligns with their existing beliefs, influenced by the confirmation bias (Knobloch-Westerwick & Meng, 2009). Second, individuals don't necessarily avoid politically incongruent media (Garrett, 2009; Garrett & Stroud, 2014), known as non-avoidance. Consequently, people prefer content that reinforces their preexisting beliefs while also consuming some incongruent media due to factors like access or convenience.

Second, scholars have developed the concept of *media repertoires* to understand environmental factors and how individuals navigate them. When faced with information abundance, people may tailor their routines for different purposes (Taneja et al, 2012) or gravitate towards specific platforms. Thus, people have a good deal of agency when it comes to determining their own routine. Still, systemic factors do shape the 'menu' of available options, leading to clear patterns in media use. One assumption guiding theory in both literatures is the notion that people make active decisions when consuming news. However, technological developments have raised questions about the limits of individual agency over the news content they see. Many social media sites such as Facebook and news aggregators such as Google News or Apple News use algorithms to filter and curate news content to their users (DeVito, 2017; Joris et al., 2021; Thorson et al., 2019). While much attention has been given to how these algorithms personalize content for people, less attention has been paid to the role of *other people's behavior* in informing their selection criteria. In fact, a person's social connections are one of the top criteria for Facebook's selection algorithm (DeVito, 2017; Thorson et al., 2019).

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Accordingly, we argue that selection algorithms have an ‘actuarial’ dimension: The outcome (i.e., the selection of content) depends in part on the actions of other people who are similarly classified in terms of news preferences. For example, if a person selects a story from Fox News, and also selects a second story from Breitbart News, online platforms record this link and consider it not only for that user, but also for other users who subsequently select Fox News. The more people who co-select stories from these organizations, the stronger the link becomes over time, and the more likely a given user will be to receive a recommendation for Breitbart after having selected Fox. The selections of other individuals may shape the ideological valence of potential selections for others with similar news interests (Ohme & Mothes, 2020). Thus, the experience of any individual will be influenced by others who fit a similar behavioral profile.

Niche and Organizations

As we have shown, work on both selective exposure reveals that audiences are not as ideologically fragmented as previously believe. We argue that the within niche patterns of news selection reflect relationships of *competition and symbiosis* among organizations, where segments are not bifurcated according to left and right leanings, but rather a working balance is achieved within each news niche based on platform preferences and regular habits of program switching across the political spectrum. A shared medium creates a space for audiences to form, and organizations ‘compete’ with each other in the same niche as they cater to individuals with similar tastes and characteristics.

For example, Fox and MSNBC share the cable television space, and people often watch both programs when they channel surf the news (Shafer, 2022). In a similar vein, those who prefer the *New York Times* usually also read the *Washington Post*. Finally, Breitbart does not take viewers away from the larger right-leaning players like Fox News, but rather they draw

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from the audience and even add to it by directing individuals from the fringes of the media system to more central outlets (Berry & Sobieraj, 2013; Benkler et al., 2018). Thus, an equilibrium is achieved within a news niche, where organizations cater to audiences based on a range of factors, including platform preferences, socio-economic status, and geographic location. This thinking is in line with studies that show how people carve out cross-media repertoires that anchor them to a 'nexus' of platform and place (Schröder, 2015).

### Utility of Concept: Fragmentation, Community Detection, and the News Niche

The concept of a news niche has great utility for the study of audience fragmentation. We have identified at least three advantages of the approach that cannot be gained without examining and comparing portions of the news audience. First, it affords a more fine-grained look at the complex ecology within which news audiences consume media. Second, it allows researchers to identify characteristics of organizations and individuals who comprise a given niche. Third, it offers researchers the ability to describe and compare the differences between niches (e.g., Mancini, 2015). These affordances give rise to a host of empirical questions about the relationships among organizations and individuals within and between audience niches.

For example, one might speculate that the organizations that occupy the same audience space share a common ideology, or what we refer to as *editorial valence*. On the other hand, an equally plausible conjecture is that two organizations occupy the same niche not because they are similar, but because they form symbiotic relationships to serve different needs of that audience segment. Thus, it is an open question whether organizations within niches are similar or different in terms of editorial valence. Likewise, it is not clear whether individuals within a niche differ in terms of the ideological slant of their news selections, which we refer to as *selection valence*. Individuals within a niche share a common experience with a subset of media organizations, but

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this shared experience may not be defined by ideological homogeneity in news selection. Based on this logic, we have developed a set of three interrelated research questions.

RQ1: What news niches can be observed in the American attention network?

RQ2: Is variation in the editorial valence greater within niches or between niches?

RQ3: Is variation in selection valence greater within niches or between niches?

Another distinct advantage of the niche approach is that it affords researchers the ability to parse out different levels of influence on an individual’s news selections. We have reviewed literature on the role of individual motivations and routines/habits, as well as the ways in which these individual-level factors interact with organizational-level market forces and the sociotechnical structures of news curation in online spaces. With these ideas in mind, we can identify and analyze three distinct influences on an individual’s selection valence: (1) their own political ideology (i.e., *individual ideology*); (2) the average editorial valence of news organizations within an individual’s niche, which we refer to as *organizational ideology*; and (3) the average ideology of others in the niche, which we refer to as *audience ideology*. The niche concept helps researchers to parse these effects by structuring relevant comparisons. That is, an individual’s news selections should be most affected by the organizations and audience members within their niche in addition to their own political ideology.

H1: Individual ideology will be positively related to selection valence.

H2: Organizational ideology will be positively related to selection valence.

H3: Audience ideology will be positively related to selection valence.

Given the multilevel nature of the relationships under study (H1-H3), we propose exploratory research questions. If organizational and audience characteristics shape the range of choice—that is, they narrow the ‘menu’ options down from many to a more manageable

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subset—then it is plausible that individual predispositions of ideology and interest interact with these contextual factors.

RQ4: Does (a) organizational ideology or (b) audience ideology moderate the relationship between individual ideology and selection valence?

RQ5: Does (a) organizational ideology or (b) audience ideology moderate the relationship between political interest and selection valence?

## Methods

### Design and Data

The study is based on a 17-wave, rolling cross-sectional survey administered in the United States ( $N = 1,965$ ). Respondents were recruited by Qualtrics and completed the survey online between September 3 and November 1, 2020 (Incidence Rate = 100%; Cooperation Rate (CR3) = 70%). Each survey wave was balanced according to quotas for age, race, gender, and census region according to the 2018 American Community Survey (Table A1 in the online appendices). Data were weighted by education and income (Table A2). Missing values were imputed using a chained equations technique (Fully Conditional Specification; van Buuren & Groothuis-Oudshoorn, 2011).

### Measures

#### *Open-Ended News Use Questions*

Survey respondents were asked three times to “write the name of a news outlet (e.g., *The New York Times* or nytimes.com, Fox News or foxnews.com, WBRC Birmingham) that you used in the past week.” These open-ended news use measures require respondents to engage in free recall, which is more cognitively demanding than close-ended measures relying on cued recall. Because of this additional demand, open-ended measures reduce random error arising from

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patterned response or poor recall (Prior, 2009). The responses were cleaned and categorized to indicate discrete news outlets (e.g., “*The New York Times*” or “Fox News”). We then created categories to reduce noise and enhanced clarity by drawing on the notion of ‘media logic’—that is, the set of economic, technological, and institutional incentives/constraints that shape content (e.g., television call letters, channel numbers, or network affiliations were combined into a “local television” category). After initial stages of coding was completed, outlets with smaller audiences (fewer than 10) were folded into left, right, and neutral spheres (Appendix D; Supplemental Data includes full lists of cleaned and coded responses). In the filtered data (see below), respondents named 38 distinct outlets/categories (Appendix Table B1).

**Editorial Valence and Organizational Ideology**

The news outlets named in the open-ended measures were coded for their editorial valence (-3 = *Very Liberal*, 0 = *Neutral*, 3 = *Very Conservative*) by three trained coders (Krippendorff’s alpha > .90 for 10% of the list). Based on prior literature (Stroud, 2011), coding adhered to a hierarchical coding guideline: (1) the editorial valence as identified by existing scholarship (Otero, 2018); (2) if not identified in prior literature, the outlet’s stated ideology; (3) if not stated, the balance of candidate endorsements dating back to 2012; (4) if no endorsements, ideological stances in editorials. If coders could find no information based on these criteria, the outlet was assumed to be neutral. The variable ranges from -2.0 to 2.2, with a mean of -0.1 (*SD* = 0.8). Finally, organizational ideology was computed by taking the average editorial valence of the organizations within each niche (i.e., the group mean for each niche).

**Selection Valence**

Selection valence characterizes the slant of an individual’s exposure or attention based on the outlets they named in the survey. We assigned each respondent the coded editorial valence

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scores for the organizations they named. These scores were then averaged for each respondent, creating an index of selection valence ( $M = -0.1$ ,  $SD = 0.8$ ).

### *Individual and Audience Ideology*

Individual political ideology was measured with three survey items asking respondents to place themselves on an 11-point, L-R scale ( $-5 = Liberal$ ,  $0 = Neutral$ ,  $5 = Conservative$ ). This item has a mean of  $0.2$  ( $SD = 3.0$ ). Audience ideology was computed by taking the average ideology of respondents within a given niche (i.e., the group mean for each niche).

### *Control Variables*

Regression analyses control for demographics, including age ( $M = 3.0$ ,  $SD = 1.6$  where  $1 = 18-24$  and  $8 = 85$  or older), gender (51% female; 1 non-binary respondent was grouped in this category for analytic purposes), race (40% persons of color, not including white-identifying Hispanics), education ( $M = 4.5$ ,  $SD = 1.8$  on a 7-point scale where  $1 = No$  high school diploma and  $7 = Post-graduate degree$ ) and income ( $M = 4.7$ ,  $SD = 2.3$  on an 8-point scale where  $1 = Less$  than \$15,000 and  $7 = More$  than \$150,000). Finally, analyses control for political interest, which was measured with three items asking how interested respondents are ( $1 = Not$  at all and  $5 = Very$ ) in politics, news, and community ( $M = 3.5$ ,  $SD = 1.0$ ).

## **Analysis and Results**

### *Analytical Strategy and Network Construction*

Following previous work on projection networks, we constructed a projection of audience overlap (Ksiaszek, 2011; Mukerjee et al., 2018, 2022). The network consists of organizations (nodes) and shared audience members between organizations (edges). Based on prior literature, the projected network was filtered to a) reduce systematic measurement error by removing connections with an edge weight  $< 2$  (Author, YYYY) and b) to minimize noise from excessive

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long-tail distributions (Appendix Figure D1). Self-loops (where respondents mention the same outlet more than once) were removed. While studies of audience attention networks employ other filtration methods designed to reduce non-systematic measurement error (Mangold & Scharkow, 2020), open-ended data present a different problem, that of systematic measurement error, which arises from systematic tendencies to over- or underestimate phenomena of interest (King et al., 1994). We rely on filtration methods tailored to this measurement issue.

*Identifying the News Niches*

After creating the network, and to answer RQ1, we ran a series of clustering algorithms on the projection that: a) best fit the theoretical assumptions for audience fragmentation; and b) produced the most consistent results. Louvain/Multilevel clustering met these criteria, producing three stable niches (Appendix, Figure C1). Model specification has a major influence on network composition, and we tested alternative structures and algorithms (Appendix, Table C3). We chose the Louvain approach because it produced the most straight-forward interpretation. Alternative structures yielded better modality statistics, but importantly those models do not employ projection networks and therefore do not align with existing theory. In addition, Louvain has been shown to perform best for fragmentation studies based on multiple datasets (Mukerjee, 2021). We have labeled the three niches according to the organizations they comprise: (1) *right-leaning cable dominant*, which is characterized by high levels of attention to television news (both national broadcast and cable news on the left and right), as well as prominent right-wing or right-leaning digital news organizations (e.g., Breitbart and the *New York Post*); (2) *left-leaning elite*, comprising prominent coastal prestige newspapers including the *New York Times* and the *Washington Post*, along with left-leaning digital news organizations such (e.g., Huffington Post and Politico); and (3) *local—aggregators*, which features heavy reliance on news aggregators,



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local media, and social media in addition to prominent centrist newspapers (e.g., *USA Today* and the *Chicago Tribune*). Labels for the niches were derived iteratively, and they generally reflect the media logic of a particular context. As expected, there is considerable overlap in the network structure as boundaries between niches are fluid (Figure C1).

After obtaining categories, respondents were assigned a nominal code representing their news niche based on the extent to which their responses to the open-ended news attention measures aligned with one of the categories (cable:  $n = 905$ ; elite:  $n = 195$ ; local:  $n = 344$ ). Respondents whose answers did not fall cleanly into one of the three categories were considered to have no niche ( $n = 564$ ). Correlation analysis (Appendix Table C2) offers a degree of concurrent validity. The *right-leaning cable-dominant* niche is older and more likely to be male. It also comprises individuals with higher political interest. The *left-leaning elite* niche members are younger, more educated individuals with high incomes, high political interest, and left-leaning ideology. Finally, the *local—aggregators* niche is marked by low political interest and avoidance of political news.

Having identified the three news niches (RQ1), one-way ANOVA was used to assess the between-group and within-group variance in editorial valence (RQ2) and selection valence (RQ3). The projection network shows considerable overlap among news niches (Figure C1), which raises the question of whether there are differences between the niches in terms of ideology. The answer to this question is unequivocally yes. At both the organizational (RQ2) and individual levels (RQ3), the between-group variance is substantially larger than the within-group variance (see Table appendix C2 for full results), resulting in significant  $F$ -statistics (at the organizational level,  $F(2) = 5.19, p = 0.011$ ; at the individual level,  $F(2) = 81.20, p < 0.001$ ), which can be interpreted as the ratios of between-group to within-group variance. These results

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indicate that differences between the news niches are larger than differences among individuals within each niche. A closer inspection of the means shows that at both levels, the mean of the *elite* group is different from the means of the other two groups (Figure 1), with a significantly more liberal editorial valence ( $M = -0.79$  versus a grand mean of  $-0.10$ ) and selection valence ( $M = -0.73$  versus a grand mean of  $-0.10$ ). Meanwhile, the other two groups have similar means, but different variances. The *local* group displays a small variance estimate with cases clustered around the mean ( $Var. = 0.09$  for editorial valence and  $Var. = 0.15$  for selection valence).

In contrast, the *cable* group displays a large variance estimate with cases widely dispersed around the mean ( $Var. = 1.88$  for editorial valence and  $0.79$  for selection valence). Thus, the three niches are substantially different from one another: The elite niche is solidly liberal with both individuals and organizations ranging from left-leaning to solid left; the local niche is primarily centrist, with individuals and organizations clustered around the neutral point; and the cable niche is the most ideologically diverse, with a centrist average but also a broad array of individuals and organizations on either side.

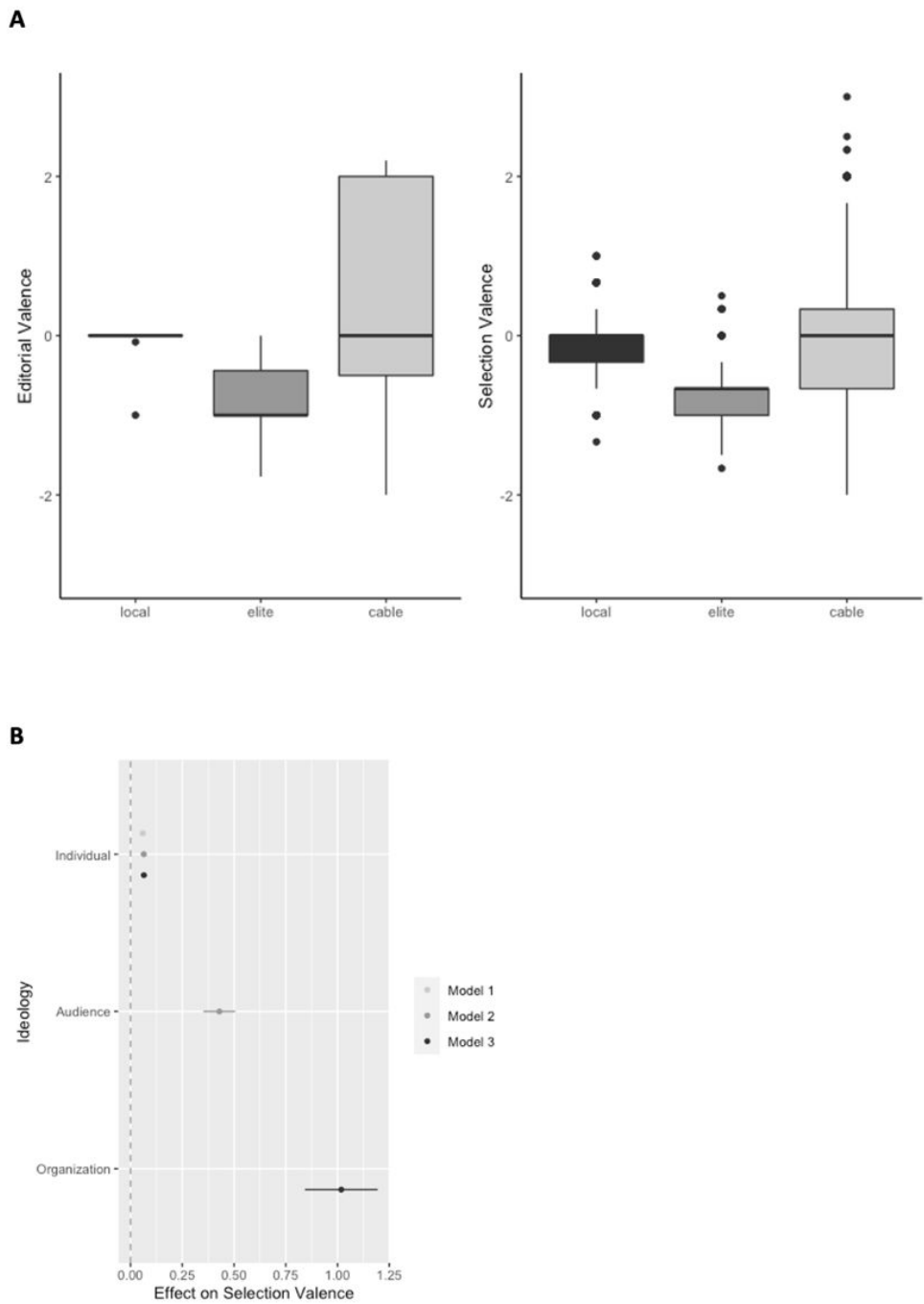
**Hypothesis Testing**

Next, we used multilevel modeling to assess the effects of individual ideology on selection valence, while also accounting for how those effects are shaped by the news niches (H1). Because the time-ordered and grouped data structure could produce measurement invariance, it is important to test whether the outcome varies across sampling frames and niches. A null multilevel model shows that it does vary across these structures (17 frames x 3 niches = 51 groups) with a standard deviation of approximately .31, and a comparison with a null linear model (which does not account for time and group structures), shows that the multilevel model is a better fit to the data ( $\chi^2 = 85.94, p < .001$ ).

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Figure 1

Boxplot of Mean Ideological Valence for News Niches (A) and Dot-and-Whisker Plot (B) Showing Effects on Selection Valence at the Individual, Audience, and Organizational Levels



Note. Editorial valence = editorial slant for all organizations within the niche; selection valence = mean ideology of selections for the audience within the nice (+ = right-leaning).

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Table 1

*Multilevel Models Predicting Effects of the News Niche on Selection Valence at the Individual, Audience, and Organizational Levels*

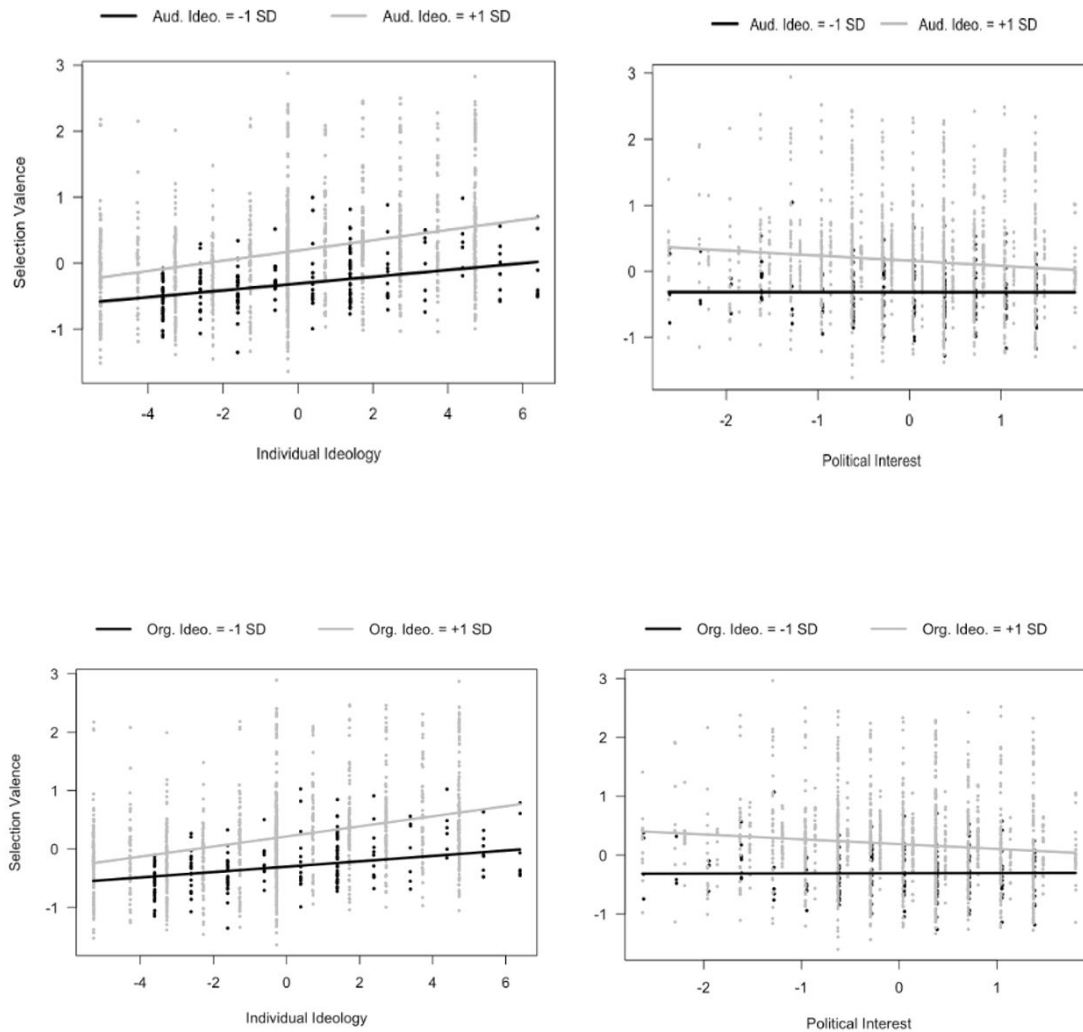
Selection Valence (+ = Right-Leaning News)						
Fixed Effects	Individual Level (Model 1)		Audience Level (Model 2)		Organizational Level (Model 3)	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Intercept	-0.21***	0.05	-0.14***	0.03	0.00	0.03
Age	-0.04***	0.01	-0.04***	0.01	-0.04***	0.01
Gender (1 = Female)	0.01	0.04	0.00	0.04	0.00	0.04
Race (1 = Person of Color)	-0.15***	0.04	-0.15***	0.04	-0.16***	0.04
Education	-0.01	0.01	-0.01	0.01	-0.01	0.01
Income	0.00	0.01	0.00	0.01	0.00	0.01
Political Interest	-0.04*	0.02	-0.04*	0.02	-0.04*	0.02
Individual Political Ideology (right)	0.06***	0.01	0.06***	0.01	0.06***	0.01
<b>Effects of Niche (right)</b>						
Audience Ideology within Niche			0.43***	0.04		
Organizational Ideology within Niche					1.02***	0.09
<b>Random Effects</b>		<i>Var.</i>	<i>Var.</i>		<i>Var.</i>	
Intercept		0.09		0.01		0.01
Individual Ideology		0.00		0.00		0.00
Residual		0.45		0.44		0.44
<b>Fit Statistics</b>						
LR		-1,720.00		-1,686.47		-1,685.37
ICC		0.17		0.02		0.02

Notes: Cell entries are parameter estimates from multilevel models (MLM) with random slopes and intercepts. *N* = 1,444. Groups = 51 (3 niches by 17 frames). #*p* < .10, \**p* < .05, \*\**p* < .01, \*\*\**p* < .001. Data weighted by education and income. Variables are group-mean centered. Niche effects are at different levels of analysis and not directly comparable.

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**Figure 2**

*Conditional Effects of Niche Ideology on Selection Valence of at the Audience (Top) and Organizational (Bottom) levels for Individual Ideology and Political Interest*



Results are shown in Table 1. The first model in the table shows the fixed and random effects of individual ideology. The fixed effect is positive and statistically significant ( $b = 0.06$ ,  $SE = 0.01$ ,  $p < 0.001$ ). Although the intercept for selection valence varies between groups ( $Var. = 0.09$ ), the random effect of individual ideology is close to zero ( $Var. = 0.00$ ), resulting in a low ICC of

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0.17. These results indicate that while the mean for selection valence varies across groups, the effect of individual ideology on selection valence is stable. Thus, H1 is confirmed.

The next two models in the table layer on contextual effects for organizational ideology (H2) and audience ideology (H3). These can be interpreted as characteristics of news niches: Audience ideology is calculated as the group mean of individual ideology within each niche, and organizational ideology is calculated as the group mean of editorial valence for all outlets within each niche. That is, the former captures the effects of *the ideology of other people within a niche*, and the latter captures the effects of *the editorial valence of organizations with a niche*. As shown in the table, both effects are statistically significant and substantially larger than the effect of individual ideology. For audience ideology, the effect is  $b = 0.43$  ( $SE = 0.04, p < 0.001$ ), and for organizational ideology, it is  $b = 1.02$  ( $SE = 0.09, p < 0.001$ ). These effect sizes are compared in a dot-and-whisker plot in Figure 1, which shows that the organizational effect is the largest (Cohen’s  $d = .30$ ) and the individual effect is the smallest ( $d = .16$ ), with the audience effect close in magnitude to the organizational effect ( $d = .28$ ). These results show that while an individual’s own political ideology matters, the editorial valence of organizations and audience members within the niche have a stronger relationship with the ideological valence of their news exposure. H2 and H3 are confirmed.

To answer RQ4 and RQ5, we created a set of moderation models based on Table 1. Conditional effects of the audience-level indicator (Table 1; Model 2) are plotted in Figure 2. For individual ideology, there is a marginal but non-significant interaction with audience ideology (top) (left panel,  $b = 0.02, SE = 0.01, p < .10$ ). In contrast, there is a negative, statistically significant conditional effect of interest and audience ideology (right panel,  $b = -0.07, SE = 0.03, p < .05$ ). Thus, audience ideology effects are stringer when political interest is high. Figure 2

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(bottom) plots the organizational-level interaction models. There is a statistically significant interaction between ideology and organizational ideology (left panel,  $b = 0.08$ ,  $SE = 0.03$ ,  $p < .01$ ). Intuitively, the effect of individual ideology on news selection is stronger where it aligns with the organizational ideology within a niche. Interest displays the opposite pattern, and the conditional effect is statistically significant (right panel,  $b = -0.17$ ,  $SE = 0.08$ ,  $p < .05$ ). The effect of organizational ideology is much stronger when interest is low, and therefore those with higher level of interest seem to be balancing their selections toward neutral regardless of niche characteristics.

**Discussion**

This is the first study to use cluster analysis to study partisan news selection in projection networks, and it is also the first to offer an empirical and theoretical framework for examining partisan news selection as the product of multiple levels of influence. We extended the concept of niche news beyond the original framework of partisan market segments (Stroud, 2011) to incorporate audience-level characteristics. Using community detection algorithms, we situate people within discrete but overlapping news clusters. This approach addresses a key limitation within audience overlap studies, which typically elides the ideological valence of actors and organizations within the media system. Our findings point to three broad conclusions: (1) identifiable niches can be detected despite widespread overlap to the extent that; (2) the ideology of *other people* within the same niche has a direct effect on news selections; and (3) individuals' news selections are conditional on environmental factors.

First, it is clear from our analysis that news niches are identifiable features of the audience network, although we observe considerable overlap among them. Thus, the field is faced with a contradiction. Polarized consumption habits are observable, yet overlap is the

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defining structural feature of networks (e.g., Fletcher & Nielsen, 2017; Stroud, 2011). We see this as a product of separately analyzing individual- and network-level data. By taking a multilevel approach, we find some support for ideological fragmentation, as some, but not all, of the niches we observed were statistically different from others in terms of their mean ideological character. That said, our observations do not fit with the idea that segmentation occurs purely on ideological grounds. For example, while both organizations and individuals in the *elite press* niche were more left leaning than their counterparts in other niches, the other two niches did not cleanly align with a particular ideological slant. The *local—aggregator* niche is centrist or perhaps even non-ideological, but the *cable dominant* niche, though leaning right, importantly displayed a wide range of variation in terms of ideology. The *cable* niche is the most extreme but also comprises both news organizations and individuals from across the political spectrum, indicating that audience members in this niche pay attention to both left- and right-leaning cable outlets (e.g., CNN and Fox News). These patterns are explained by market competition and symbiosis at the organizational level, and by actuarial dynamics at the individual level. Market forces and algorithmic filtration interact with individual-level preferences. People may consume news from ‘both sides’ within a niche, but the overall valence of the niches are highly relevant.

Second, our findings yield some novel insights about the role of other people within the same niche in shaping individuals’ news selections. This kind of audience-level influence has been overlooked by the literatures on fragmentation and selective exposure. To forward theory in this area, we emphasize two key ideas: (1) news exposure in online environments may take on an ‘actuarial’ quality: curation algorithms on major platforms use selection criteria that depend on the past behavior of others with similar selections; and (2) therefore, this kind of actuarial influence means that an individual’s exposure would be *most* influenced by other individuals



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whose past news selections were similar to their own. *The niche provides leverage over this prediction, by classifying individual audience members according to their news tendencies and grouping them with other individuals who have similar tendencies.* Tests of the hypothesis support our theory, and, in fact, the effect size (Cohen's  $d$ ) for audience ideology ( $d = .28$ ) is greater than the effect size for individual ideology ( $d = .16$ ). These insights about the relative influence of audience ideology on individuals' news selections advances theory on selective exposure. While the literature has offered explanations based on individual motivations and/or psychology, it has not accounted for environmental factors related to sociotechnical changes, particularly the role of curation algorithms. Thus, our study adds a new layer to this conversation by showing how news selection is at least partially explained by these kinds of sociotechnical factors.

Third, our study advances theory by examining the interactions among influences at the individual, organizational, and audience levels. Prior literature has conceptualized the audience as an 'interaction' between news organizations and individuals (Webster, 2011). For example, Fletcher and Nielsen (2017) describe the audience as the interaction between system-level structures and audience preferences. Similarly, Stroud (2011) conceptualizes the news niche as the intersection of market competition and individual motivation. These ideas imply that news exposure is shaped by multiple levels of influence, which can perhaps be traced to independent origins (market forces, psychology, sociotechnical features of platforms), but which interact with one another. Our study tests these interactions and finds that the relationship between individual ideology and the valence of news selection is stronger when an individual 'belongs' to a news niche in which the average organizational ideology aligns with their own. This study therefore

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advances theory by offering a framework for contextualizing the role of individual motivations in shaping news selection.

The conclusions of the study are limited in several ways. First, the research design incorporates a ‘rolling’ time element and does not include interviews with the same respondent across waves. Thus, the data cannot be used to make causal inferences. Second, the study relies on self-reported measures. Survey respondents underestimate their news exposure, particularly in online settings (González-Bailón & Xenos, 2020). That said, because the open-ended measures require more cognitive effort than close-ended measures, we can be certain that respondents were, in fact, exposed to the media they named in the survey, even if that list is incomplete. Another measurement limitation is related to systematic error inherent in the open-ended measures. Whereas close-ended measures are susceptible to random error (Mangold & Scharkow, 2021), open-ended measures may capture one-time encounters with media that do not reflect habitual patterns of use. The study employs a data filtration method tailored to the problem of systemic error. Finally, effects observed at different levels of observation are not strictly comparable, and comparisons of effect sizes should be made with caution.

Conceptualizing the news niche as an ecology opens exciting research avenues. While our study focused on politically motivated news consumption, other variables affect news attention, selection, and engagement. At the individual level, political interest tempers the effects of ideology, but additional characteristics may impact niche dynamics. For example, ‘ineffective avoidance’ within the niche may occur, where incidental exposure mechanisms shape news habits.<sup>1</sup> Additionally, exploring media systems outside the US could reveal different patterns at the organizational level. Next, we need to know more about how technology companies curate

<sup>1</sup> We ran models with incidental exposure as a covariate, and the coefficients were not statistically significant. Additionally, including incidental does not improve significantly improve model performance.

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news feeds and how these decisions interact with organizational- and individual-level factors. Finally, future research could compare the effects of different platforms on niche formation.

This study introduces a novel method for detecting niches within audience projection networks, offering insights into news audience segments and various influences on news selection. While 'filter bubbles' in the US news audience have been disputed, we demonstrate that structural fragmentation is not the sole indicator of ideological fragmentation. Despite audience overlap, partisan news selections persist, possibly contributing to the erosion of social cohesion in the United States, even if people consume news from both sides of the spectrum.

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Appendix A:  
Sample Demographics and Weighting Scheme

Table A1

*Demographic Profile of Survey Sample and Target Population*

	Current Survey	U.S. Census Bureau: 2016 American Community Survey
	(%)	(%)
Gender		
Male	49.0	49.2
Female	51.0	50.8
Age (median)	35-44	37.7
Ethnicity/race		
White	59.6	62.0
Black or African American Native	15.9	12.3
American Indian and Alaska Native	1.5	0.7
Asian	12.9	5.2
Native Hawaiian and other Pacific Islander	0.2	0.2
Hispanic	7.6	17.3
Household income (median)	US \$60,000–75,000	US \$57,617
Education		
Less than high school graduate	2.1	13.0
High school diploma or equivalent	15.7	27.5
Some college or associate degree	26.2	29.2
Bachelor’s degree or higher	56.1	30.3

*Note:* The US Census Bureau 2016 American Community Survey is available online at <http://factfinder.census.gov/>



Table A2

*Survey Weights*

Income	
Category	Weight
Less than \$15k	1.02
\$15k to 30k	1.00
\$30k to \$45k	1.00
\$45k to 60k	1.00
\$60k to \$75k	1.00
\$75k to \$100k	0.86
\$100k to \$150k	0.95
More than \$150k	0.95
Education	
Category	Weight
None, or grades 1-8	5.75
High school incomplete (grades 9-11)	1.77
High school graduate (grade 12 or GED certificate)	1.33
Some college, no 4-year degree (includes Associate's Degree)	0.89
Technical, trade, or vocational school after high school	0.65
College graduate (Bachelor's Degree)	0.42
Post-graduate training/professional school after college	0.42

*Note.* Income measured as annual household income. Education measured in terms of highest level completed. Final survey weights created by multiplying weights for income and education.

Appendix B:  
Lists of News Organizations Included in Network Projection

Table B1

*List of Nodes, Degree, and Frequencies Extracted from the Projection Network*

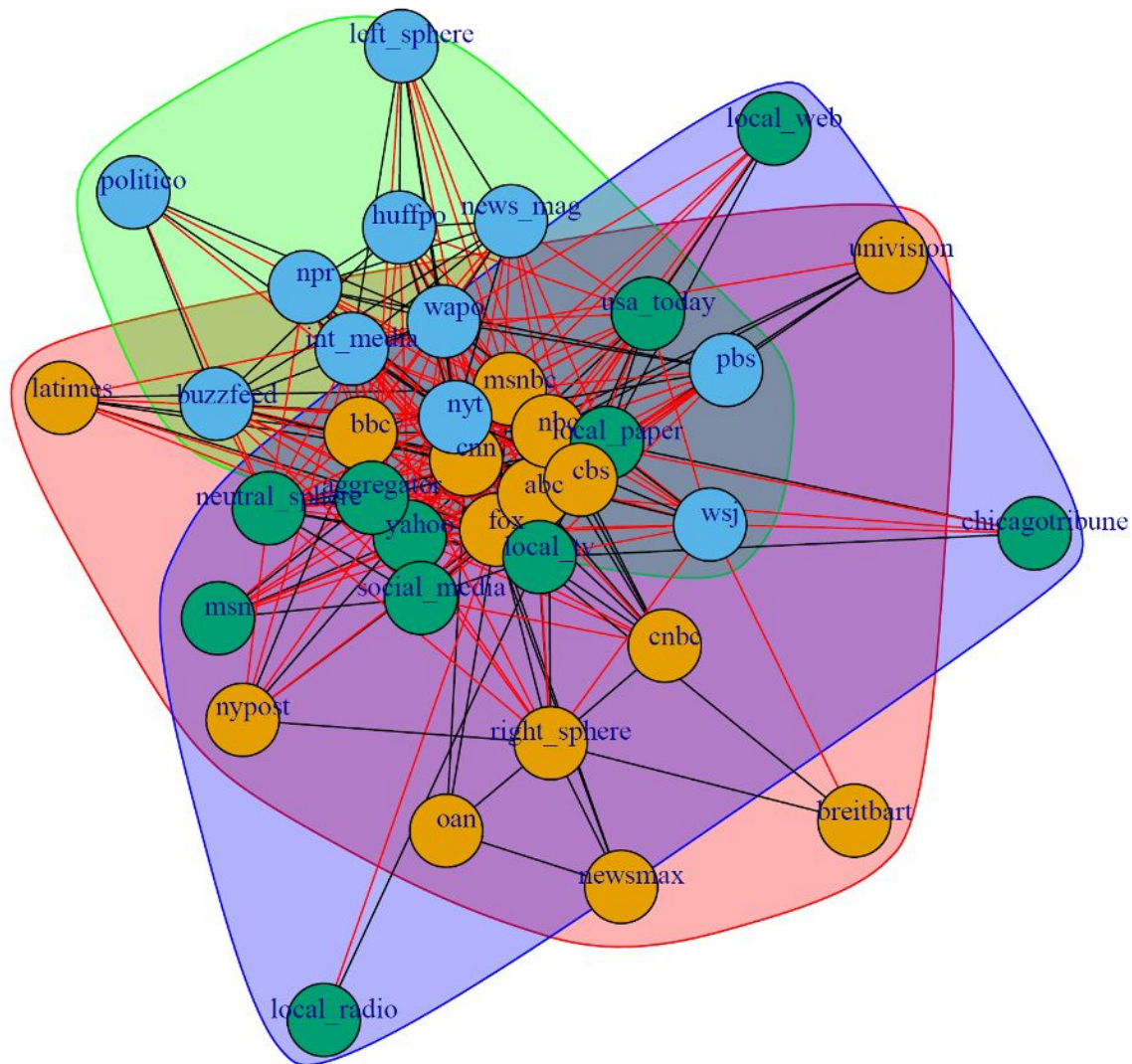
Rank	Node	Degree	Frequency
1	Fox News	35	650
2	CNN	31	642
3	New York Times	31	318
4	ABC News	24	306
5	Local TV News	23	292
6	NBC News	27	246
7	CBS News	20	206
8	MSNBC	23	186
9	Local Paper	25	179
10	Aggregators	23	170
11	Social Media Sites	18	159
12	Yahoo News	23	130
13	BBC News	20	110
14	Washington Post	25	106
15	International Media	19	56
16	Wall Street Journal	14	49
17	Right-Leaning Sphere	14	46
18	NPR	16	43
19	USA Today	16	42
20	News Magazines	15	41
21	Huffington Post	15	40
22	Buzzfeed	14	39
23	Neutral Sphere	18	38
24	MSN	9	34
25	PBS	13	32
26	CNBC	11	31
27	Los Angeles Times	8	21
27	One America News	4	21
29	News Wire (Ap/Reuters)	7	20
30	Left-Leaning Sphere	9	19
30	Local News Websites	7	19
30	New York Post	8	19
33	Newsmax	4	16
33	Politico	6	16
35	Breitbart	3	14
35	Local Radio	2	14
37	Chicago Tribune	5	12
38	Univision	5	11

*Note.* Nodes are final list of coded open-ended responses analyzed in the network projection.  
Degree = number of edges (shared audience). See supplemental data set for disambiguated list.

## Appendix C: Full Results for News Niches

Figure C1

*Network Projection Based on Louvain Cluster Analysis*



*Note.* Orange: right-leaning cable **dominant**; blue: left-leaning elite; green: local—aggregator

Table C1

Organizational Niche Membership

Niche 1		Niche 2	Niche 3	
Right-Leaning & Cable Dominant		Left-Leaning Elite Press	Local/Aggregators	
ABC*	LA Times*	Huffington Post	Aggregators	USA Today
BBC*	MSNBC*	NY Times	Chicago Trib.	Yahoo
Breitbart	NBC*	Washington Post	Local Paper	
CBS*	Newsmax	Politico	Local Radio	
CNBC*	NY Post	NPR*	Local TV	
CNN*	OAN	Buzzfeed	Local Web	
Fox News	Right Sphere	International Media*	MSN	
	Univision*	Wall Street Journal*	Neutral Sphere	
		New Magazines*	Social Agg.	
		PBS*		
		Left Sphere		

Note. \* Denotes organization that does not conform to theoretical expectations for fragmentation based on selective exposure theory.

Table C2

*Means and Variances for Editorial Valence and Selection Valence*

Statistic	Local/Aggregators	Elite	Cable	Full Sample
<b>Editorial Valence</b>				
Mean	-0.10	-0.79	0.41	-0.10
Variance	0.09	0.27	1.88	1.08
<i>N</i>	11	11	15	37
Between-Group Variance		4.57		
Within-Group Variance		0.88		
Test Statistic		$F(2) = 5.19, p = 0.011$		
<b>Selection Valence</b>				
Mean	-0.07	-0.73	0.03	-0.10
Variance	0.15	0.15	0.79	0.62
<i>N</i>	344	195	905	1,444
Between-Group Variance		41.29		
Within-Group Variance		0.51		
Test Statistic		$F(2) = 81.20, p < .001$		

*Note.* Outcome variable has an observed range of 5.0 (Min. = -2.0, Max. = 3.0). Data weighted by education and income.

Table C3

*Pearson Correlations among Individual-Level Characteristics and Niche Membership*

	Niche Membership	Right-Leaning cable	Left-Leaning Elite	Local- Aggregator
Age	0.19***	0.13***	-0.05*	0.09***
Gender (1 = Female)	-0.02	-0.04*	0	0.03
Race (1 = PoC)	0.05*	0.05*	-0.02	0
Education	-0.08*	-0.02	0.09***	-0.02
Income	0.05*	0.03	0.07**	-0.04
Political Interest	0.10***	0.15***	0.05*	-0.12***
Political Ideology (Right)	-0.09***	0.01	-0.17***	0.01
Pro-attitudinal	0.37***	0.41***	0.14***	-0.21***
Counter-attitudinal	0.16***	0.29***	-0.05*	-0.15***
Avoid other side	-0.10***	-0.20***	0.06*	0.10***

*Note.* N = 2008. Pro-, counter-attitudinal, and avoid variables were created by combining ideology and selection valence measures.

Table C4

*Performance Comparison of Alternate Detection Algorithms and Model Specifications*

Algorithm	Groups (N)	Modularity
<i>Co-exposure Projection (Theory-Driven)</i>		
Louvian/Multilevel (ML)	3	.108
Fast-Greedy	4	.109
Walk Trap	13	.054
Spin-Glass	4	.026
Leading Eigenvector	4	.089
<i>Bipartite Structure (Data-Driven)</i>		
Louvian/ Multilevel (ML)	13	.442
Walk Trap	30	.419
Spin-Glass	13	.387
Leading Eigenvector	14	.387

*Note.* Fast-Greedy not compatible with Bipartite specification. Bipartite specification reflects data structure, while co-exposure reflects theoretical structure based on previous studies.

Appendix D:  
Cleaning and Coding of the Open-Ended Responses

To clean and categorize open-ended responses, we employed principles and techniques of both manual and automated content analysis. Text responses in surveys are notoriously challenging to clean and code, and therefore we went through several rounds of text processing.

First, after removing incomplete/empty cells, gibberish, and non-news related responses we identified the potential universe of text content. Response rates are: 1,599 respondents offered one answer; 1,432 offered two; and 1,264 gave three complete answers. Next, we cleaned the text (lower case, remove spaces and special characters), then standardized for outlet (e.g., ‘Hannity’, ‘Sean Hannity Show’, were folded into Fox News; ‘Maddow’, ‘Rachel Maddow Show’, were folded into MSNBC etc.). At this stage (n= approx. 450 discrete responses) we applied our hierarchical coding scheme.

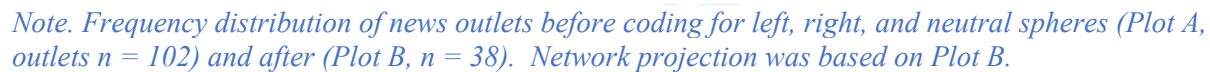
The coding scheme asked coders (the authors) to place news outlets into the proper category at the highest level of importance first. That is, categories were not mutually exclusive, and decisions should be made based on where the response falls in the hierarchy. Coders verified the scheme at each phase of cleaning and settled disagreement through discussion. The codebook is as follows:

- 1) Organizational Prominence: Well-known, established news organizations with large audiences were treated as discrete outlets. Related programs, websites, podcasts, or personalities folded into the host organization (e.g., Fox News, CNN, New York Times, BBC, NPR).
- 2) Sources with fewer mentions should go into one of the following broad categories where there is an obvious connection to the professional/technological mode of news production:
  - a. Call letters or station name for radio and TV: local radio, local TV\*
  - b. Newspaper-based organizations: Twitter following > 1 million = discrete node, otherwise local paper
  - c. Newsmagazines (e.g., People, Time Magazine)
  - d. International Media (from U.S. perspective, e.g., China Times)
  - e. Aggregators (Google, AOL)
  - f. Local Web: Local news w/out TV or paper component (Click on Detroit)
  - g. Social media: Platforms in general, no influencers (Facebook, Twitter)
  - h. Other broadcast and online/multiplatform shows/websites or influencers: See Step 3.
- 3) Coders should try to keep discrete nodes where possible at this stage. If responses do not garner large audiences (Step 1) and do not cleanly fit into broad categories (Step 2), responses will be treated as discrete outlets or folded based on audience size (n < 10) into valanced spheres (right, left, neutral) in the final step before constructing the projection network.

\*After completing Step 2, Part A, we applied the partisan valence coding scheme. Thus, all newspapers (local or national), as well as other discrete news sources were individually coded to create the ‘selection valence’ variable.



### Effects of Filtering of the Longtail Distribution



	Cleaned Response	Network Node	Frequency	Partisan Code (+ = Right)
1				
2	fox	fox	650	2
3	cnn	cnn	642	-1
4	nyt	nyt	318	-1
5	abc	abc	306	0
6	local_tv	local_tv	292	0
7	nbc	nbc	246	-1
8	cbs	cbs	206	0
9	msnbc	msnbc	186	-2
10	local_paper	local_paper	179	0
11	aggregator	aggregator	170	0
12	social_media	social_media	159	0
13	yahoo	yahoo	130	0
14	bbc	bbc	110	0
15	wapo	wapo	106	-1
16	int_media	int_media	56	NA
17	wsj	wsj	49	0
18	npr	npr	43	0
19	usa_today	usa_today	42	-1
20	news_mag	news_mag	41	NA
21	huffpo	huffpo	40	-1
22	buzzfeed	buzzfeed	39	-1
23	msn	msn	34	0
24	pbs	pbs	32	-1
25	cnbc	cnbc	31	0
26	oan	oan	21	2
27	latimes	latimes	21	-1
28	news_wire	news_wire	20	0
29	local_web	local_web	19	NA
30	nypost	nypost	19	1
31	politico	politico	16	-1
32	newsmax	newsmax	16	2
33	local_radio	local_radio	14	0
34	breitbart	breitbart	14	2
35	chicagotribune	chicagotribune	12	0
36	univision	univision	11	0
37	bloomberg	neutral_sphere	7	0
38	hill	neutral_sphere	7	0
39	smart	neutral_sphere	5	0
40	drudge	right_sphere	4	1
41	epochtimes	right_sphere	3	2
42	washingtontimes	right_sphere	3	2
43	cbn	right_sphere	3	2
44	judicialwatch	right_sphere	3	3
45	cspan	neutral_sphere	2	0
46	ny1	neutral_sphere	2	0

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2	newsday	neutral_sphere	2	0
3	rush	right_sphere	2	2
4	infowars	right_sphere	2	3
5	dailywire	right_sphere	2	2
6	skim	left_sphere	2	-1
7	cnet	neutral_sphere	2	0
8	vox	left_sphere	2	-1
9				
10	dailycaller	right_sphere	1	2
11	dailykos	left_sphere	1	-2
12	root	left_sphere	1	-2
13	podcasts	neutral_sphere	1	0
14	afa	left_sphere	1	-3
15	motherjones	left_sphere	1	-2
16	newser	neutral_sphere	1	0
17	dailypnut	neutral_sphere	1	0
18	propublica	left_sphere	1	-1
19	talkradio	right_sphere	1	2
20	daverubenpodcast	right_sphere	1	1
21	slate	left_sphere	1	-2
22	bongireport	right_sphere	1	2
23	redstate	right_sphere	1	2
24	libertydaily	right_sphere	1	3
25	blaze	right_sphere	1	2
26	realclearpolitics	right_sphere	1	1
27	fark	neutral_sphere	1	0
28	newsy	neutral_sphere	1	0
29	occupieddemocrats	left_sphere	1	-2
30	firstamerican	neutral_sphere	1	0
31	crookedmedia	left_sphere	1	-2
32	whitehouse.gov	neutral_sphere	1	0
33	congress.gov	neutral_sphere	1	0
34	vice	left_sphere	1	-1
35	timesofamerica	right_sphere	1	3
36	rawstory	left_sphere	1	-2
37	zerohedge	right_sphere	1	1
38	wnd	right_sphere	1	3
39	billoreilly	right_sphere	1	2
40	axios	left_sphere	1	-1
41	federalist	right_sphere	1	2
42	bet	left_sphere	1	-1
43	babalyonbee	right_sphere	1	2
44	newsbuz	right_sphere	1	3
45	bulwark	left_sphere	1	-1
46	jewishworldreview	right_sphere	1	2
47	townhall	left_sphere	1	-2
48	rsbn	right_sphere	1	2

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2	cdc	neutral_sphere	1	0
3	examiner	right_sphere	1	2
4	dailybeast	left_sphere	1	-2
5				
6	yournation	right_sphere	1	3
7	truthisscary	right_sphere	1	3
8	redpilltv	right_sphere	1	3
9				
10	newsnet	neutral_sphere	1	0
11	webmd	neutral_sphere	1	0
12	citizenfreepress	right_sphere	1	2
13				
14	danbongi	right_sphere	1	3
15	wendybell	right_sphere	1	2
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For Peer Review

Cleaned Response	Partisan Code
abc	0
advocate	-1
afa	-3
aggregator	0
ajc	0
akronbeaconjournal	0
al	0
aljazeera	-1
americanjournal	-1
annistonstar	-1
aol	0
arizonadailystar	-1
arizonarepublic	1
atlantic	-1
atmoreadvance	1
axios	-1
babalyonbee	2
baltimoresun	-1
barrons	0
bbc	0
bet	-1
billoreilly	2
birminghamnewspaper	1
blaze	2
bloomberg	0
bluefielddailytelegraph	-1
bongireport	2
bostonglobe	-1
breitbart	2
bulwark	-1
buzzfeed	-1
castrovalleyforum	0
cbc	0
cbn	2
cbs	0
cdc	0
charlotteobserver	-1
chattogatimesfreepress	-1
chicago_dailyherald	0
chicagosuntimes	-1
chicagotribune	0
chinatimes	-1
cincinnatiinquire	0
citizenfreepress	2
clarionledger	0

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2	clarkcounty	0
3	cleveland	-1
4	cnbc	0
5	cnet	0
6	cnn	-1
7	columbiatimes	-1
8	columbiatribune	-1
9	congress.gov	0
10	coshoctonbeacon	0
11	courierjournal	-1
12	crookedmedia	-2
13	cspan	0
14	dailybeast	-2
15	dailybulletin	0
16	dailycaller	2
17	dailyedge	2
18	dailyhunt	0
19	dailykos	-2
20	dailymail	0
21	dailypantagraph	0
22	dailypnut	0
23	dailypress	-1
24	dailywire	2
25	dallasmorning	0
26	danbongi	3
27	daverubenpodcast	1
28	democratandchronicle	-1
29	detroit_freepress	-1
30	discover	0
31	drudge	1
32	duluthtrib	1
33	eastbaytimes	-1
34	economist	-1
35	eltiempo	0
36	entertainment	
37	epochtimes	2
38	esquire	-1
39	evansvillecourierandpress	-1
40	examiner	2
41	fark	0
42	fayettevilleobserver	-1
43	federalist	2
44	firstamerican	0
45	floridatoday	0
46	forbes	0
47	fortune	0

1	
2	fox
3	fox_business
4	france24
5	
6	germantagesschau
7	gfherald
8	gilroydispatch
9	
10	globalmagazine
11	gothamist
12	grandrapidspress
13	
14	guardian
15	hartfordcourant
16	hawaiiitribune
17	
18	heraldgazette
19	hill
20	hindu
21	
22	houstonchronicle
23	huffpo
24	huntsvilletimes
25	
26	idahostatesman
27	independent
28	indianapolisstar
29	
30	indianexpress
31	infowars
32	inquirer
33	
34	jacksonsun
35	japantoday
36	jewishworldreview
37	judicialwatch
38	
39	kalamazoogazette
40	kxville
41	
42	latimes
43	leparisien
44	libertydaily
45	
46	local_paper
47	local_radio
48	local_tv
49	longbeachpresstelegram
50	
51	ltn.tw
52	lubbockavalanchejournal
53	lvvj
54	
55	magazine
56	maui
57	mercialappeal
58	
59	messengerinquirer
60	mewsjournal
	miamiherald

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2	milwaukeejournal	-1
3	minn_star	0
4	mlive	0
5		
6	motherjones	-2
7	msn	0
8	msnbc	-2
9		
10	nation	-2
11	nationalreview	2
12	nbc	-1
13		
14	newarkstar-ledger	-1
15	newlexpatch	0
16	news_wire	0
17	newsbuz	3
18	newsday	0
19	newser	0
20		
21	newsmax	2
22	newsnet	0
23	newsweek	-1
24	newsy	0
25	newyorker	-1
26	nikkei	0
27	njspotlight	-1
28	npr	0
29	nta	0
30	ny_daily	-1
31	ny1	0
32	nypost	1
33	nyt	-1
34	oan	2
35		
36	occupieddemocrats	-2
37	ocregister	0
38	omahaworldherald	0
39	opelika_auburn	0
40	oregonian	-1
41	orlandosentinel	-1
42	oxfordeagle	0
43	palatkany_daily	0
44	patriot	-1
45	pbs	-1
46	people	-1
47	peoplesdaily	-2
48	podcasts	0
49	politico	-1
50	propublica	-1
51	rawstory	-2
52	realclearpolitics	1



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2	redpilltv
3	redstate
4	rogersvillereview
5	rollingstone
6	root
7	rsbn
8	rush
9	salisburypost
10	sanantonioexpress
11	sandiegouniontribune
12	sanfranchronicle
13	sanjosemercury
14	saukvalleygazette
15	seattletimes
16	sfgate
17	skagit
18	skim
19	sky
20	slate
21	smart
22	social_media
23	southfloridasunsentinel
24	staradvertiser
25	statesman
26	stlouispost-dispatch
27	streaming
28	sunuk
29	talkradio
30	tampabaytimes
31	tcpalm
32	telemundo
33	time
34	times_union
35	timesofamerica
36	tmz
37	toledoblade
38	townhall
39	tribtoday
40	truthisscary
41	tucsonsentinel
42	tvc
43	univision
44	us_news
45	usa_today
46	venturacountystar
47	vice

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2	virginianpilot	-1
3	vogue	-1
4	vox	-1
5	wapo	-1
6	washingtontimes	2
7	webmd	0
8	wendybell	2
9	westhawaiiitoday	-1
10	whitehouse.gov	0
11	wichitaeagle	-1
12	wired	-1
13	wnd	3
14	wsj	0
15	yahoo	0
16	yellowhammer	0
17	yournation	3
18	zerohedge	1
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For Peer Review