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Published online: 23 Nov 2020.

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Do High-Choice Media Environments Facilitate News Avoidance? A Longitudinal Study 1997–2016

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ABSTRACT

The well-known "high-choice news avoidance thesis" and the alternative "network structure perspective" stipulate somewhat conflicting expectations about news consumption in today's digital media systems. Based on annual survey data from Norway, the article examines news avoidance from 1997–2016, a period when digitalization processes transformed the media environment. Results show that news avoidance increased only marginally. The decrease in use of traditional media is largely compensated for by online news. However, news avoidance is increasingly polarized along educational lines, and it is unclear to what degree online news consumption equals traditional news media consumption in qualitative terms.

In recent decades, the media systems of established democracies have changed from low to high choice (Neuman, 2016; Prior, 2007; Van Aelst et al., 2017); that is, the number of media platforms and the content offered have increased considerably in Western democracies, which presents citizens with an almost unlimited choice of content to consume. Given the theoretical assumption that media use results from the combination of people's interests, preferences, or motivations, and available media content (Luskin, 1990; Van den Bulck, 2006; Webster, 2014), this development is expected to have profound consequences for the consumption of news about politics and current affairs. In a high-choice media environment, the politically interested can consume more news, while the uninterested are more likely to avoid such content, as they can consume the content to their liking.[1] This high choice is argued to increase overall news avoidance as well as potentially increase

[1]See, e.g., Napoli (1999, 2011), Neuman (2016), Pool (1990), Prior (2007), and Webster (2005, 2014).

existing news avoidance gaps based on gender, age, and socioeconomic factors. We call this argument the high-choice news avoidance thesis. If true, such a development might have a set of negative consequences, in terms of increased news avoidance and fragmentation. In turn, such tendencies might spur political inequalities and impede the fulfillment of basic prerequisites in a deliberative democracy—that is, equality of access to information and the maintenance of a shared basis for deliberation (Habermas, 2006).

An alternative view, which we call the "network structure perspective," holds that the Internet should not be analyzed as an open market of free choice but as a networked structure that serves to disseminate news in ways that may still constrain choice (Taneja et al., 2012, 2018). Relevant model subcomponents include: the "power law distribution" (Easley & Kleinberg, 2010), which implies that some news sources gain very high visibility and dissemination; and "social media curation," which suggests that a small number of power users drive news sharing (Taneja et al., 2018). Both factors might lead to people consuming news from online sources, without actively seeking out these sources. Thus, the high-choice news avoidance thesis and the network structure perspective stipulate somewhat conflicting expectations about news consumption in today's digital media system.

In this article, we investigate the extent to which news avoidance has increased over time and whether news avoidance has become increasingly polarized along gender, age, and educational lines. The existing empirical evidence for higher news avoidance in the new digital environment is inconclusive thus far (see Skovsgård & Andersen, 2020; Van Aelst et al., 2017). Existing research has suffered from a lack of longitudinal data as well as data that cover online and off-line news sources. This article contributes to filling these empirical gaps by using annual high-quality survey data covering a 20-year period (1997–2016) from Norway that contains information about media use across all major channels and platforms, including TV, radio, printed newspapers, and the Internet. These data provide a unique opportunity for longitudinal analysis of news avoidance during a period when digitalization processes transformed the Norwegian media environment from low to high choice.

News Avoidance and High Choice

The term "news avoidance" describes a mode of conduct in which news is regularly avoided (see Skovsgård & Andersen, 2020). A main distinction can be drawn between intentional and unintentional news avoidance. Intentional news avoidance is used to denote an aversion to news that leads to avoidance because it is experienced as too negative and stressful to consume (Edgerly, 2019). Unintentional news avoidance is used to denote people who escape

news, not because of aversion, but because of other interests that lead to media consumption of other types of content. The high-choice news avoidance thesis is mostly about this second type of news avoidance. In this study, news avoidance is measured as the proportion of people who did not consume news on a typical day.

The high-choice argument relies on the theoretical assumption that media use is the result of agency (individual preferences) and structure (the media environment). Such a perspective has received an influential theoretical formulation in what is often referred to as the OMA framework: opportunity, motivation, and ability (Luskin, 1990).[2] The high-choice perspective addresses mainly the motivation aspect of OMA, by focusing on the role of preferences. Individuals are considered to be driven by relatively stable media preferences when deciding what content to consume. The media environment is assumed to determine consumers' opportunities to consume content based on these preferences. Proponents of the high-choice news avoidance thesis posit that in the "low-choice" media environment in previous decades, a limited number of media options constrained the impact of individual preferences. In high-choice media systems, the constraints on preferences are weaker, as people have access to the content that interests them the most at any given time. Following Prior (2007), those most interested in news can follow it more, and those less interested can avoid it to an even larger extent than before (see also Napoli, 1999, 2011; Neuman, 2016; Pool, 1990; Webster, 2005, 2014). Consequently, we should expect that in a transition from a low- to high-choice media environment, news avoidance would increase.

Relatedly, the high-choice news avoidance thesis entails that inequalities in political media use between groups will increase. Previous studies have found that gender, age, and education influence news consumption (see e.g., Esser & Steppat, 2017). Women consume less news than men (Benesch, 2012; McCombs et al., 2011), younger cohorts consume less news than older cohorts (Chyi & Lee, 2013; Huang, 2009; McCombs et al., 2011; Trilling & Schönbach, 2013), and people with less education typically consume less news than people with more education (Bergström et al., 2019; McCombs et al., 2011; Norris, 2000; Trilling & Schönbach, 2013).

The high-choice news avoidance thesis relies on the idea of preferences as the distinguishing factor under the condition of choice. For the purpose of our argument, there is a need to relate gender, age, and educational differences to the issue of preferences if inequality based on these characteristics should increase when choice increases. Of the three, inequality of political media use along educational lines is arguably most explicitly related to

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[2]See Webster (2014) and Van den Bulck (2006) for theoretical discussions of how users choose media content.

preferences, as more education is expected to foster interest in societal matters and politics (Hillygus, 2005; Prior, 2018).[3] Gender and age differences in news consumption are less explicitly related to preferences. For gender, costs related to use explain some of the differences between the genders, but preferences also seem to play a role (Benesch, 2012). Regarding age, research shows a clear empirical relationship between age, news use, and political interest (Chyi & Lee, 2013). However, although the younger population has tended to be less interested in political news than the older population, youths are early adopters in terms of new technologies and might easily find that functional news complements online (Newell et al., 2008; De Waal & Schoenbach, 2010). Given that existing research indicates differences in news consumption along education, gender, and age, which might be linked to preferences, it is useful to examine whether news avoidance is increasingly polarized along these lines when choice increases.

Although the high-choice news avoidance thesis is theoretically pleasing and plausible, its theoretical assumptions are also contested. Some scholars have argued that the Internet does not constitute an open high-choice environment in the sense implied by the high-choice argument. Instead, departing from an "infrastructural perspective" to news consumption (see Webster, 2014), digital media systems can be perceived as networked structures that enable and constrain news dissemination in specific ways through their design (Taneja et al., 2018). From this "network structure perspective," it follows that the structural aspects of the Internet moderate the effect of preferences on media use. First, the power law distribution of attention in the digital news landscape entails that some sites and content will get the main bulk of the attention, while the majority remain invisible (Easley & Kleinberg, 2010). For example, mechanisms such as search engines and trending topics move people toward already popular products (Webster, 2014). By implication, this might result in news consumption among individuals with other preferences. Second, on social media, people have massively overlapping networks, and a small number of power users drive news sharing within these networks (Taneja et al., 2018, p. 1794). Such "social media curation" results in most people being reached by at least some shared news. In addition to these factors, and related to how the digital network structure works, Taneja et al. (2018) argue that "infrastructural legacies" (i.e., the traditional patterns of news use among citizens) may be upheld even as the news environment changes. All these factors—power law distribution, social media curation, and infrastructural legacies—might curb the segregating effects suggested by the high-choice news avoidance thesis.

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[3]Education is also assumed to be strongly related to ability as education tends to go along with increased cognitive skills (Luskin, 1990).

A set of theories have also discussed the premise of time displacement inherent in the high-choice news avoidance theory (Kayany & Yelsma, 2000; Newell et al., 2008). Newell et al. (2008) argue that time used for media consumption is not necessarily a zero-sum game and that different types of media consumption might increase simultaneously until the point where the need that drives the use is saturated. Based on this assumption, people might still follow the news, while at the same time increasingly use media for entertainment. In addition, high choice reduces the cost of consuming news for those less interested. In previous decades, people who missed the daily news show on television could not easily pick up their phone and scroll through online papers (see Lekles et al., 2017, p. 6).[4]

Overall, discussions of the high-choice news avoidance thesis and the network structure perspective do not provide grounds for formulating any clear hypotheses about the development of news avoidance over time. In the next section, we present existing empirical evidence and discuss whether the current status of knowledge can help formulate more precise expectations.

Existing Studies on News Avoidance

The empirical evidence for increasing news avoidance is inconclusive (see Skovsgård & Andersen, 2020; Van Aelst et al., 2017; for reviews). In a recent contribution summarizing the field, Skovsgård and Andersen (2020) identify four different approaches to the operationalization of news avoidance. The first approach involves clustering techniques that define groups based on their news exposure. For example, Ksiazek et al. (2010) employ a latent class approach to divide the U.S. population into two equally large groups of avoiders and seekers. The second approach employs relative cutoff points. An example is Strömbäck et al. (2013), who classify news avoiders and news seekers based on an individual's score on an additive news consumption index (see also Strömbäck, 2017). The third approach uses absolute cutoff points (no or very little news consumption during a defined period). This may include, for example, individuals who consume news less than once every month (Newman et al., 2019) or fewer than two days a week (Shehata et al., 2015). Finally, the fourth approach is based on how people perceive their news exposure and categorizes people as news avoiders if they claim to avoid news. These different definitions and measures complicate comparisons and determinations of whether news avoidance has increased over time.

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[4]This argument is arguably stronger in some contexts than others, depending on to what extent news broadcasting was dispersed throughout the evening.

The most serious limitation in previous research is arguably the lack of longitudinal data that include encompassing measures of news consumption across all relevant platforms (Ksiazek et al., 2010). Some studies show that over time, news consumption through traditional media is decreasing. For example, in a comparative study, Aalberg et al. (2013) showed that people consumed less television news in 2010 than in 2002. However, the average decline in all countries was only 4 minutes. In another study, the same authors found that the proportion of news avoiders increased in the same period, but the authors were unable to include news on the Internet when constructing their news avoider variable (Blekesaune et al., 2012). A recent comparative study suggests that news avoidance has increased since the Internet has become available as a mass medium. However, the impact of political interest has not changed over time (Gorskia & Thomas, 2019). To our knowledge, the only study to have a time series and a "total" measure of news consumption in established democracies is Strömbäck et al's. (2013) longitudinal investigation of news avoidance in Sweden. Their study showed that the proportion of news avoiders increased from 8% to 13% from 1986 to 2010. However, relying on an additive index of total media use, there is the possibility that people who rely on only one or two channels for news may score as news avoiders (Strömbäck et al., 2013, p. 424).

Research Questions

The high-choice news avoidance thesis suggests that news avoidance should increase, and the network structure perspective suggests that news avoidance should remain stable under the condition of digitalization and increased choice. The existing empirical evidence does not offer any clear support for or against an overall increase in news avoidance over time. Based on the overall assessment of existing theoretical assumptions and existing empirical evidence therefore, we refrain from formulating clear hypotheses and pursue the following question:

RQ1: Does the proportion of non-news users decrease or increase as media choice increases?

Further, according to the network structure approach, online power law distribution, social media curation, and infrastructural legacies will curb the effects – leading to more news avoidance – suggested by the high-choice news avoidance thesis, as people will consume news online. Relatedly, but from a different perspective, theories of media replacement suggest that new media might offer new opportunities to fill the same functional needs (De Waal&

Schoenbach, 2010; Kayany & Yelsma, 2000; Newell et al., 2008). Thus, our second research question is:

RQ2: To what extent is any decrease in use of traditional news sources compensated by use of the Internet for news?

Regarding the discussion of increasing news avoidance gaps based on gender, age, and education, neither the theoretical arguments nor the empirical evidence provide grounds for formulating clear expectations. Thus, we pursue the following question:

RQ3: Is news avoidance increasingly polarized along gender, age, and educational lines in the 1997–2016 period?

Norway: Rapid Change from a Low- to a High-Choice Media Environment

Norway provides a particularly relevant case for investigating news avoidance and high choice as the country has experienced a transition from a low- to a high-choice media environment since the early 1990s. At the start of the 1990s, the supply of broadcast media was still limited to one TV channel and two radio channels. As the decade progressed, the regulation became more liberalized, resulting in a number of radio and several TV stations. Most importantly, the first national commercial television channel was introduced in 1993, and the public broadcaster introduced two more channels during the same period (see Syvertsen et al., 2014).

Concerning online media, access to the Internet grew from a mere 13% in 1997 to 97% in 2016 (Schiro, 2019). Norwegian newspapers introduced online versions available free of charge in the late 1990s. During the last 10 years, the proliferation of smartphones, high-speed mobile Internet, and streaming services has characterized the high-choice media environment. The share of smartphone access rose from 57% in 2012 to 95% in 2018. Taken together, the liberalization of media markets and the infrastructure concerning high-bandwidth Internet access, available to virtually everyone, should lead to unprecedented possibilities for the individual consumer to select a media diet of his or her choice in Norway.

Some structural characteristics of Norwegian society and the media landscape might constrain a possible increase in news avoidance. Norway is a small, interconnected society, where one might assume that networks and information flows overlap to a high degree. In addition, some extensively used quality news hubs are free of charge—most importantly, vg.no and NRK News online. Second, Norway has been, and still is, a newspaper-centric country. In 2019, Norway ranked at the top of the list of countries in proportion of online news subscribers (Newman et al.,

2019, p. 11). Throughout the country, local newspapers have also managed to survive and maintain an audience (Syvertsen et al., 2014). Finally, the proportion of the Norwegian population with higher levels of education is comparatively high.

Data and Method

We utilized the Norwegian Media Use Study (*Norsk mediebruksundersøkelse*), an annual survey of media use in the Norwegian population, which has been carried out since 1991 by Statistics Norway. The survey was based on a representative national sample drawn from the official Norwegian citizen register. The response rates were high, more than 60% in recent years; the response rates were even higher in the 1990s.[5] The surveys contained items on news consumption of all relevant television and radio channels as well as newspaper consumption for the whole period. In addition, a survey item about the consumption of online news (regardless of platform) was introduced in 2001. By using the Norwegian Media Use Study, sampling methods and survey items remained identical for the whole period, and new items regarding emerging media were introduced. This allowed us to build a reliable longitudinal data set for the whole period.

We operationalized news avoidance as not consuming any news through printed newspapers, radio, television, or the Internet on a "typical day." The data included measures for news consumption via television, radio, newspapers, and (from 2001) the Internet. For consumption of television news, we used questions asking about watching the news on several channels: "Did you watch the news on [channel] yesterday?" (*yes/no*). In total, five channels were included in the survey: NRK 1, NRK 2, NRK3 (national broadcasters), TV2 (commercial alternative), and TVN (commercial alternative, until 2009). In addition, a final question asked about consuming news through any other TV channel.

For radio, we used the question "Did you listen to news on the radio yesterday?" (*yes/no*). For newspapers, for the years 1997–2001, we used the question "Did you read a newspaper yesterday?" (*yes/no*). Since 2001, we used a question that asked about reading printed newspapers: "Did you read a print version of a newspaper yesterday?" (*yes/no*). The "print (*papiravis*)" emphasis was added to the question in 2001, because a general question about news on the Internet was introduced: "Did you read news on the Internet yesterday?" (*yes/no*). The questionnaires were structured around

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[5]Statistics Norway publishes response rates in the following manner in most, but not all, of their documentation reports: Gross sample/net sample = participation rate. For some years, no response rates are published or only the net sample is provided. The documentation reports state a decrease from about 80% participation in the early 1990s to about 56% in 2019. Regardless, the rates are among the highest on any known surveys.

main media platforms (radio, television, Internet, etc.), so the questions about news consumption were spread throughout the questionnaire. Respondents who did not report consuming news on any of the platforms asked about were coded as "news avoiders"; thus the dependent variable is binary (news consumed on a typical day vs. no news consumed).

The empirical approach we used in the study is a multivariate regression analysis of time, gender, age, and education on news avoidance. As the annual data were not independent of each other, models were run with clustered standard errors for time to avoid inflated significance levels.[6] In addition, we replicated the results in an aggregated time series analysis (see Appendix Table A1). Moreover, to get a more detailed picture of developments, we also plotted the results in figures showing the change in news avoiders over time (as presented in the following).

Results

Has the proportion of news avoiders increased over time? Does the Internet compensate for decrease in news consumption in traditional channels? Is news avoidance increasingly polarized along gender, age, and educational lines? These are the three main questions that guide the empirical analysis. Table 1 showed the main results based on eight multivariate regression analyses. We presented the results step-by-step, first describing the general development in news avoidance over time and then indicating whether the effect of gender, age, and education increased over time. For each relationship, we also presented the results plotted in figures to provide more detail and insight into the developments.

Model 1 (Table 1) examined whether the proportion of news avoiders increased over time and regressed time (year) on news avoidance, thus focusing on answering RQ1. Time had a statistically significant bivariate relationship with news avoidance, indicating that avoidance increased over time. However, the effect was modest, indicating an annual increase of 0.1 percentage points and adding up to a total of 1.9 percentage points for the 20-year period examined. The modest increase is visualized in Figure 1, where the proportion of news avoiders is plotted for each year (black line).

The average for the whole period was 8%, and the line representing the annual number weaves around the mean line, fluctuating between 6% and 10%. Only once did the proportion of news avoiders reach more than 10% in 2015 (10.5%), but it decreased again in 2016 (to 8.3%). Although the expectation that the proportion of news avoiders would increase was not supported, there was a small statistically significant increase in the two-decade

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[6]We also verified the results using logistic regression.

Table 1. The effect of time, gender, age, and education on news avoidance 1997–2016 OLS regression.

	Including Internet news					Without Internet news		
	1	2	3	4	5	6	7	8
Cons	.071** (.003)	.167** (.009)	.170** (.009)	.208** (.014)	.144** (.013)	.025 (013)	.228** (.021)	.075** (.025)
Time	.001** (.000)	.002** (.000)	.001* (.000)	.001 (.001)	.004** (.000)	.014** (.002)	.016** (.002)	.030** (.002)
Gender		.029** (.003)	.025** (.006)	.030** (.003)	.030** (.003)		.020** (.003)	.021** (.003)
Age		-.002** (.000)	-.002** (.000)	-.003 (.000)	-.003 (.000)		-.006** (.001)	-.001** (.000)
Education[a]								
Middle		-.048** (.007)	-.048** (.007)	-.048** (.007)	-.027 (.014)		-.056** (.010)	-.044** (.008)
High		-.083** (.008)	-.084** (.008)	-.084** (.008)	-.049** (.013)		-.098** (.010)	-.086** (.008)
Time × Gender			.000 (.001)					
Time × Age				.000 (.000)				-.001** (.000)
Time × Education								
Middle					-.002 (.001)			
High					-.003** (.001)			
R^2	.00	.04	.04	.04	.04	.05	.14	.16
N	32,756	29,025	29,025	29,025	29,025	32,756	29,025	29,025

Note. The dependent variable is news avoidance (0 = consume news; 1 = not consume news).
All models were run with clustered standard errors for time.
[a]Low education is the reference category.
Education was not included in 1998 and 2005, and therefore, the data from these years are not included in Models 2–5, 7, and 8.
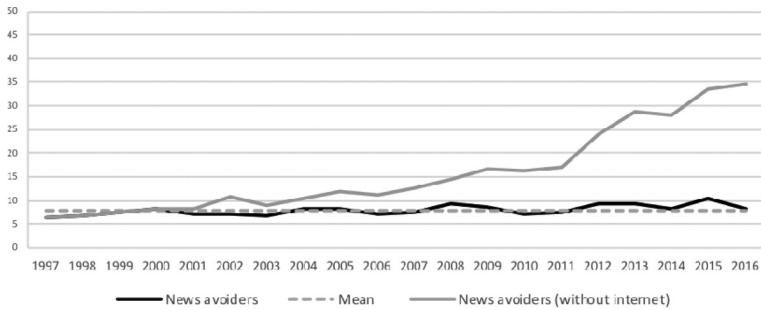**$p < .01$, *$p < .05$.

Figure 1. Proportion of news avoiders, with and without internet news, Norway, 1997–2016.

period examined. However, the high-choice news avoidance thesis did not receive great support from this overall analysis.

The use of the Internet for news seem to curb the effect of a decrease in traditional media. Model 6 displayed the effect of time on news avoidance under the conditions where Internet news consumption was not included in the dependent variable to answer RQ2. In this model, the effect was substantially greater, indicating a yearly average increase of 1.4 percentage points. The gray line in Figure 1 shows that news avoidance increased from about 8% in the 1990s to 35% in 2016, when the Internet as a source of news was excluded. This demonstrates how Internet news consumption compensates for the decrease on other platforms and speaks to the necessity of including online sources when studying news avoidance.

The stable pattern that we found related to news avoidance in general could still conceal more pronounced group differences. In Table 1, Models 2 to 5 showed the effects of the three individual-level factors—age, gender, and education—and whether these effects change over time. In Model 2, we tested the overall effect of these variables. The results revealed that gender, age, and education all have a statistically significant and strong relationship with news avoidance, as expected from the review of previous research. That is, women, the young, and the less educated were more likely to avoid news. In Models 3, 4, and 5, we included an interaction term between those factors and time to investigate whether the effect of these three factors increased over time (RQ3).

We found no indication of an increasing gender gap in news avoidance. The interaction terms between gender and time were weak and far from statistically significant (Model 3). A stable gap was presented visually in Figure 2[7]. From 1997 to 1999, the gap was 2 percentage points; from 2015 to 2016, the gap is 3 percentage points. The gap was greatest in the years

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[7]To avoid volatility due to the issue of small *n*, we pool three and three (country) years in this figure.
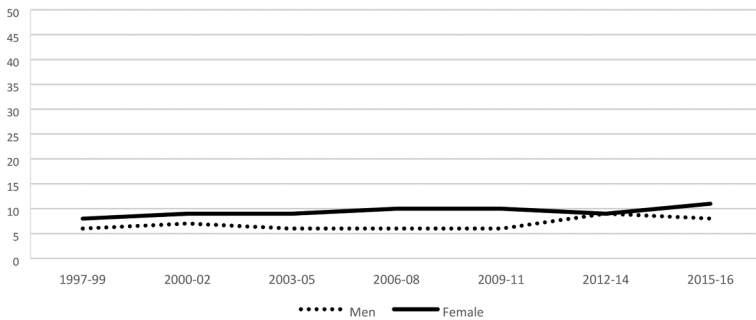
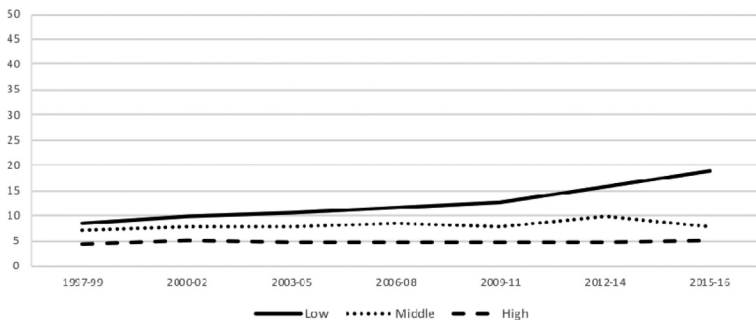**Figure 2.** Proportion of news avoiders by gender, Norway, 1997–2016.

Figure 3. Proportion of news avoiders by education level, Norway, 1997–2016.

2006–2011 (4 percentage points). Thus, there was a gender gap in news avoidance, but this gap did not increase in the period from 1997 to 2016.

The results regarding the impact of education over time were more in line with the high-choice news avoidance thesis. Model 5 investigated whether the effect of education increased over time. The interaction term between education and time was statistically significant, indicating that this was the case. The difference between people with low, middle—and in particular, high—levels of education increased significantly over time. In Figure 3, we visualized this increase by plotting the proportion of news avoiders over time in three different educational groups.

The gap in news avoidance between groups with high and low levels of education was quite narrow at the beginning of the period, at only 5 percentage points, but the gap increased 300% during the period to 15 percentage points. The expanding gap was mainly due to news avoidance increasing from 9% to 19% in the group with low levels of education. Thus, the expectation embedded in the high-choice news avoidance thesis that news consumption would be increasingly stratified along educational lines was clearly supported.
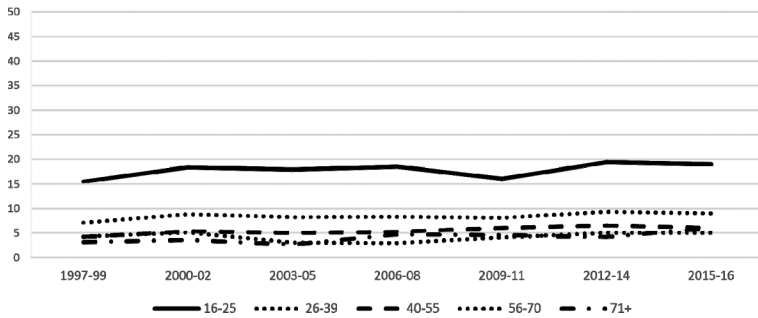
Figure 4. Proportion of news avoiders by age group, Norway, 1997–2016.

The impact of age on news avoidance did not increase over time. The interaction term in Model 4 was weak and failed to reach statistical significance. Thus, age did not become a stronger predictor of news avoidance during this period. To visualize the results, the proportion of news avoiders in five different age groups was plotted, as shown in Figure 4.

Figure 4 shows how age was related with news avoidance, and avoidance was clearly highest in the youngest group of up to 25 years of age, followed by the second-youngest group. This result echoed the previous research on news consumption discussed previously. The tendency over time was stable in all age groups. However, only 16% in the youngest group were news avoiders at the beginning of the period, and 19% were news avoiders toward the end, indicating that there was a small incremental increase in this group. Nonetheless, the increase is not statistically significant.

Model 8, as presented in Table 1, shows the effect of age on news avoidance when Internet news consumption was not included. The interaction term between time and age was statistically significant and very strong. Thus, for age, the Internet compensated for a decrease in news consumption
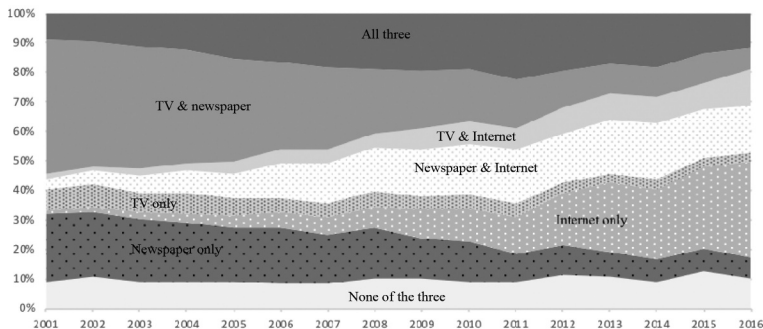

Figure 5. News consumption patterns, Norway, 2001–2016.

in other channels. If not for Internet consumption, the gap between young and old would have increased considerably. In the youngest group, in 2016, about half got their news only from the Internet (see Appendix Figure A1). Figure 5 illustrates how the Internet replaced other media and the longitudinal relation between news consumption on different media.

Figure 5 reveals considerable changes in news consumption patterns. Almost half the population used a combination of print newspapers and TV in 2001, but this share was reduced to 7% in 2016. The developments of using only print newspapers and only the Internet show completely opposite trends: In 2016, one third used the Internet as their only source, and 7 out of 10 included the Internet in their news repertoire. In addition, the proportion of those who report using all three sources increases until about 2010, but then shows a steady decline. This result underscores the heigtened importance of the Internet as a news source.

Discussion and Conclusion

Although the patterns of news consumption changed dramatically in the 20-year period examined, the results showed only a modest, incremental increase in the proportion of news avoiders. The decrease in news consumption through traditional media seems to be mostly offset by people's consumption of online news. At first glance, this appeared to run counter to the hypothesis that news avoidance would increase in the transition to a high-choice media environment. The results based on the high-choice news avoidance thesis and the network structure perspective are discussed in the following, followed by the broader issue of whether and how the Internet might or might not compensate for the decline in traditional news consumption.

Webster (2014, pp. 23–48) raises the point that preferences have been given a stronger role in shaping media choice in theoretical arguments than what the empirical evidence demonstrates.[8] The relatively limited increase in news avoidance found here supports this notion, at least for the overall news avoidance result. Although increased media choice allows people to personalize their media consumption to a greater extent than before, this does not necessarily mean that the information poor completely escape the constant flow of political news coverage. A reasonable interpretation of the present results is that there was a clash between the influence of interests and preferences—as found in the high-choice news avoidance thesis—and the forces in the digital media system curbing this influence—as suggested by what we called the network structure perspective. That is, the power law distribution of attention, social media curation, and infrastructural legacies

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[8]Importantly, behavior can also influence preferences (Ariely & Norton, 2008; Slovic, 1995).

for online news could influence media choice and constrain the influence of individual preferences (Taneja et al., 2018; see also Ksiazek et al., 2010; Webster & Ksiazek, 2012). Returning to Luskin's (1990) model of political sophistication, the network structure perspective indicate a more complex interaction between the media environment and individual motivations and abilities than what the high-choice news avoidance thesis suggest.

Nevertheless, although the increase in news avoidance that we found in this study was incremental, it was statistically significant and should not be disregarded too easily. In particular, the results related to gender, age, and education revealed interesting insights. Although the gender and age gaps did not increase, the results showed a clear tendency toward increasing stratification of news consumption along educational lines. Specifically, the proportion of news avoiders increased considerably in the group with low levels of education. The incremental increase in the total population was largely due to the increase in this group. This finding suggests that although gender news consumption gaps seemed to be unrelated to factors that increased news avoidance in high-choice contexts, background resources such as education seem to be related to such factors. These results echoed those of Bergström et al. (2019) demonstrating the increasing impact of income on news use, as well as those of Strömbäck et al. (2013) reflecting the increasing impact of political interest on news avoidance over time.

The transition from television and printed papers to using the Internet for news entails that many now seek out news for free of outside pay walls, which arguably offers less access to consistent news information. In other words, the digital media system can be difficult to navigate when it comes to monitoring the news and make it hard to follow news (Ytre-Arne & Moe, 2018). This may play out more prominently among less-educated groups.

The analysis revealed how patterns of news consumption changed profoundly from 1997 to 2016. In the 1990s and early 2000s, almost everyone watched television and/or read a printed newspaper; today, a large proportion get their news only online. This begs the question: To what extent is getting news online equivalent to using traditional news media? Respondents may have a broad conceptualization of "news" in mind when they think of online news, while news on television is restricted to specific programs. The young, who have arguably not been socialized into thinking about "news" in the same way that older generations do, may be inclined to think of online news in more encompassing terms.

Moreover, we know from other studies that a growing proportion, particularly among the young, get their news from social media (Newman et al., 2019). This highlights the need for studies that examine how media diets change over time on a more detailed level than what we were able to detect in this study. For example, the longitudinal study by De Waal and Schoenbach

(2010) indicates dynamic media displacement effects that vary between different age and education groups and with changes in the media content on offer. Studies discussing the different effects of time displacement, functional displacement (Kayany & Yelsma, 2000), and media saturation (Newell et., 2008) also warn us that one type of medium does not supplant the use of the other in a straightforward way.

Furthermore, we do not know much about differences in the *quality* of news among platforms, but studies reveal a negative relationship between social media news consumption and political learning (Shehata & Strömbäck, 2018), particularly for the politically less aware (Karlsen et al., 2019). Future studies should systematically and comparatively assess how high-choice environments affect the kinds of news consumed (Panek, 2016) and the quality of the news originating from different platforms, including news consumed through social media, to reveal more about the potential consequences of increasing numbers of the population, particularly the young, who consume only online news.

Two limitations in the data must be discussed. First, we used a binary measure for news avoidance. Unfortunately, the data did not include items that measured how much time respondents spent consuming news. This prevented us from investigating a less absolute decrease in overall news consumption. The binary operationalization of news avoidance might explain the differences between the present study and Strömbäck et al.'s (2013) study, which utilized frequency items across platforms through additive indexes. A second limitation in the present data is related to the absence of measures for preferences in the data—in particular, political interest. This prevented us from more directly testing whether news avoidance was increasing in the less interested parts of the population, as predicted by the high-choice news avoidance thesis. The result showing that news avoidance is increasing among the less educated is an indication that this is happening, at least to some extent, but not a direct test of the premise.

Although the present data are unique in the sense that they cover two decades of media use measured consistently from year to year, this study was just a one-country study. Nevertheless, the case of Norway presents a combination of attributes that makes it a particularly interesting context in which to investigate the consequences of the digitalization of news. On the one hand, the country has moved from a low- to high-choice media system more rapidly than most other countries. On the other hand, Norway has pursued strong media policies aimed at underpinning citizens' access to news by supporting a strong PBS and the newspaper industry (Sundet et al., 2019).

These strong policies, which have also been revised and updated in light of the challenges posed by digitalization, partly explain why the decline in printed newspapers has been offset by a steady increase in online news consumption. Through this period of transition, the major players in the

Norwegian newspaper market have thus been able to maintain their position (Sundet et al., 2019). Thus, "infrastructural legacies" for online news might be particularly strong as well. These structural features could, to some extent, countervail any effect of high choice.

The main result presented in this study is arguably from a democratic perspective a positive one: News avoidance does not increase worryingly in the total population when a media system transitions from low to high choice. However, although the increase was small, there was an increase in news avoidance, which was mostly found in groups with low socioeconomic status. This, together with uncertainty related to what online news consumption entails in terms of quality news and knowledge gains, provides grounds for concern. Moreover, this concern also suggests that we should continue to monitor the development of political inequalities related to patterns of news consumption and knowledge as digitalization continuously changes the media systems and media habits in established democracies.

Acknowledgments

Disclosure statement

Funding

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Appendix

Table A1. Time series analyses of news avoidance, Norway 1997–2016.

	Model 1	Model 2	Model 3	Model 4	Model 5
Time (Continuous)	.102[aa]	.12[a]	.098[aa]	.169[aa]	.632[**]
	(.035)	(.055)	(.130)	(.054)	(.125)
Age		−3.121[aa]	−3.196[aa]		
		(.226)	(.437)		
Education				−4.022[aa]	−1.691[**]
				(.375)	(.669)
Time × Age			.008		
			(.039)		
Time × Education					−.232[**]
					(.058)
Constant	7.11[aa]	16.219[aa]	16.445[aa]	15.098[aa]	10.435[**]
	(.391)	(.915)	(1.450)	(975)	(1.445)
R^2 (adjusted)	.28	.66	.66	.70	.77
N	19	99		53	53

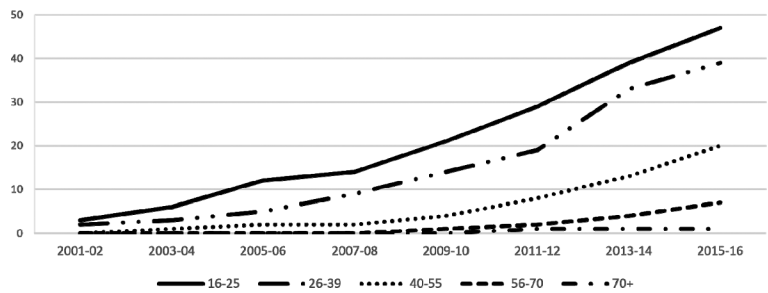*Note.* Standard errors in parentheses.
[*]$p < .05$, [**]$p < .01$.

Figure A1. Proportion using only the internet as a news source, by age, 2001–2016.