

Frequencies, Drivers, and Solutions to News Non-Attendance: Investigating Differences Between Low News Usage and News (Topic) Avoidance with Conversational Agents

Jakob Ohme^{a,b}, Theo Araujo ^a, Brahim Zarouali ^a and Claes H. de Vreese^a

^aAmsterdam School of Communication Research (ASCoR), University of Amsterdam, Amsterdam, The Netherlands; ^bWeizenbaum Institute for the Networked Society, Freie Universität Berlin, Berlin, Germany


ABSTRACT

Low levels of news seeking can be problematic for an informed citizenry. Previous research has discussed different types of news non-attendance but conceptual ambiguities between *low news usage*, *general news avoidance*, and *news topic avoidance* still exist. By using a longitudinal design conducted with a chatbot survey among Dutch users ($n = 189$), this study provides first empirical evidence that helps clarify conceptual differences. First, it estimates the prevalence of these different types of news non-attendance. Second, it tests to what extent *cognitive restrictions*, *quality assessments*, and *personal relevance* are relevant predictors in explaining engagement in three types of non-attendance to news. Third, the study investigates how news usage behaviors (e.g., *news curation*, *news snacking*, and *verification engagement*) may serve as potential user-driven counter strategies against news avoidance. We find evidence for the conceptual differences. Only small shares of news non-attendance are explained by avoidance motivations. Especially news curation and verification engagement can mitigate common drivers of news avoidance, while news snacking reinforces them.

KEYWORDS

News avoidance; news topics; news snacking; misinformation beliefs; news curation; chatbot survey

There is an ongoing divide in society between people who attend to journalistic news about politics and public affairs (subsequently called “news”) and those who do not. While “news seekers” use more news over time, “news avoiders” consume less and less journalistic information about societal developments (Shehata and Strömbäck 2018). Previous research has proposed important conceptual distinctions within news non-attendance behavior: Low levels of news usage have been differentiated from active news avoidance (Skovsgaard and Andersen 2020; Villi et al. 2021) and avoiding the news in general has been described as different from avoiding certain news topics (Aharoni, Kligler-Vilenchik, and Tenenboim-Weinblatt 2021; Metag and Arlt 2016). Empirical evidence for the conceptual differences between *low news usage*, *general news avoidance*, and *news topic avoidance*, however, is sparse and mostly topic-specific (e.g., during the

CONTACT Jakob Ohme  j.ohme@uva.nl

© 2022 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

Covid-19 crisis, see Fletcher, Kalogeropoulos, and Nielsen 2020; Ohme et al. 2022; Ytre-Arne and Moe 2021). The goal of this study is to test whether conceptual differences can be mapped empirically and to test for potential strategies that help resolve reasons for news avoidance. Specifically, we investigate the prevalence of different types of news non-attendance, explore the relationship between reasons for avoiding news and study potential alleviating factors.

Estimation of how frequently people avoid the news can range from three to 50 percent, depending on the country (Toff and Palmer 2019), but studies used very different conceptualization, estimations, and data. In a first step, we therefore investigate how frequently different types of news non-attendance occur. This is especially important if we are to later understand the scope of the detrimental effects it may have for an informed citizenry.

Second, this study compares three types of predictors for news non-attendance: *cognitive restrictions*, *quality assessments*, and *personal relevance* (Edgerly et al., 2018; Song, Jung, and Kim 2017; Villi et al. 2021). Testing their exploratory power for three types of news non-attendance contributes to theory as it helps us to understand whether low news usage, general news avoidance, and news topic avoidance emerge for different reasons and have indeed different “foundational origins”. It also has a practical implication as it sheds light on the question why people do *not* attend to news, which has received relatively less attention in research (but see de Bruin et al. 2021; Villi et al. 2021).

Third, exploring solutions to news avoidance is a core concern for journalism research (Skovsgaard and Andersen 2020). As such, this study investigates potential alleviating factors to news avoidance by exploring the interplay of reasons for news avoidance and potential moderators. We therefore focus on the interplay of news avoidance drivers with additional news restricting and news boosting behaviors enabled by a digital media environment (i.e., *news curation*, see Thorson and Wells 2016; *verification engagement*, see Kunst et al. 2021; *news snacking*, see Ohme and Mothes 2022), and test whether their simultaneous occurrence can attenuate levels of news avoidance.

This pre-registered study assesses audience news use behavior on a daily level with the help of conversational agents and online surveys in the Netherlands ($n = 189$) and presents a new avenue for the media exposure research (see Zarouali et al. 2022). The approach is used (1) to overcome recall biases (Slater 2004; Ohme, Albaek, and de Vreese 2016), as the intentionality of news avoidance may be better recalled on a daily basis, and (2) to address a potential social desirability bias (Prior 2009) in the quantitative study of news non-attendance (Villi et al. 2021), as a conversational interview style – like in qualitative research (e.g., Edgerly 2017) – may help to arrive at a more open disclosure of news non-attendance.

Low News Usage and General News Avoidance

Sometimes we do not want to know. Nevertheless, the main body of journalism research is concerned with the question where and why people seek news, rather than why they do not. This focus may be explained with an expected “desire to know” or constant surveillance of the environment, as suggested by Lasswell (1948; see Case et al. 2005; Schudson 1998). Subsequently, more knowledge exists about where and why people acquire information in their daily routines while there is “a paucity of research on the fact that

sometimes people avoid information” (Narayan, Case, and Edwards 2011, 1). Low attendance to news and successful avoidance of it altogether, or of specific news topics, can be problematic as it undermines a generally informed public and can lead to a segregation of citizens who share common public affairs knowledge and those who do not.

As the amount of information available to citizens has been growing tremendously in a digital media environment, selectivity increased and the notion of news avoidance has gained attention among communication scholars, most recently during the Covid-19 crisis (Fletcher, Kalogeropoulos, and Nielsen 2020; Ohme et al., 2022). This has led to a conceptual ambiguity, as it is often not clear what behavior is addressed when discussing news non-attendance. Three reasons for this conceptual ambiguity can be identified: First, few studies addressed different types of non-attendance systematically, a void this study wants to fill. Second, when trying to define news avoiders in quantitative studies, low levels of news seeking are often equated with news avoidance. Strömbäck, Djerf-Pierre, and Shehata (2013), for example, set the threshold of nine or less out of 27 points on a total news media use index to define news avoiders. Shehata (2016) classified young citizens who used a medium two times or less a week as news avoiders. Depending on the applied threshold, these approaches lead to 3% and up to half of studied populations in research to be defined as “news avoiders” (see Toff and Palmer 2019 for an overview). Third, the term avoidance has been used ambiguously for news non-attendance *with* but also *without* expressed avoidance intentions (Skovsgaard and Andersen 2020). “Unintentional” news avoidance (Van den Bulck 2006) is described as a relatively higher preference for other media content, while “intentional” news avoidance is a result of disliking news. Acknowledging these differences is important as both usage phenomena may have different causes and implications. Conceptually, however, this means that low levels of news usage are treated as avoidant behavior, even in the case when an avoidance intention is absent (e.g., when higher preference for other content exists). To distinguish different types of news non-attendance, hence, we need to take the act of avoidance as our starting point.

Avoidance is a natural act in human information seeking behavior, as every action comes with costs and not every information value is high enough to justify the efforts (e.g., cognitive, monetary, temporal) to attend to it. An imbalance in cost and gain can justify avoidance, a concept known as *rational ignorance* in economics (Poulsen and Roos 2009; see Case et al. 2005). Avoidance is a behavior that is invoked immediately after a need arises (e.g., to shield oneself from certain information; Case et al. 2005) and “happens when an individual consciously knows that a problem exists, but chooses not to confront it” (Johnson 1997, 56). For news attendance, this means that if low news usage occurs for reasons that do not address a problem with news (e.g., higher preference for other information), it is not an avoidant behavior. Low news usage would then only be treated as general news avoidance if an avoidance intention for news non-attendance is present. While the two concepts were *conceptually* distinguished before (Skovsgaard and Andersen 2020; Van den Bulck 2006) little *empirical* evidence for this distinction exists. Using the term “unintentional avoidance” may introduce conceptual imprecision. We therefore differentiate between *low news usage*, defined as levels of exposure to news content that remain below a theoretically or empirically determined threshold - often at least below average (Shehata and Strömbäck 2018) - and *general news avoidance*, defined as an active non-attendance to unspecified news as a

result of existing avoidance motivations. Research has studied levels of expressed avoidance intentions (see Armstrong, McAdams, and Cain 2015; Lee, Lindsey, and Kim 2017; Lee et al. 2019; Song, Jung, and Kim 2017), but has not investigated to what extent low levels of news usage is a direct result of intentional news avoidance. We therefore ask:

RQ1: How frequently is intentional avoidance the reason for self-reported low levels of news usage?

Tuning out from news is difficult in a digital media environment (see Heiss and Matthes 2019; Toff and Nielsen 2018) and often, it is the content of certain news that leads people to avoid it. The recent Covid-19 news landscape is a prime example of people reporting that they avoided the news on this specific topic (Fletcher, Kalogeropoulos, and Nielsen 2020; Ohme et al., 2022). Previous research has studied such behavior for topics like immigration or news about election campaigns (Metag and Arlt 2016; Marcinkowski and Došenović 2020). Recently, conducting qualitative interviews among young Israelis, Aharoni et al. (2021) found further indication that it is not news in general that people avoid, but rather specific news topics. This is in line with Villi et al. (2021) who point to the cultural and societal relevance of news in many countries, which makes it hard to avoid it completely. It is therefore warranted to conceptually distinguish between *general news avoidance* and *news topic avoidance*, which can have very different causes and implications for an informed citizenry.

It is an open question if recently reported high levels of news avoidance are driven by people who intentionally avoid specific news topics, or news in general. Toff and Palmer (2019) suggest that tuning out is often related to *specific* instances and topics of coverage, rather than a *general* dislike of the news. While avoiding a news topic could lead to the avoidance of news in general, the social costs can be lower for avoiding only specific news topics compared to generally avoiding news, as missing some instead of all news affects monitorial outcomes (e.g., political knowledge) less and has a lower risk to forfeit social utility of information (see Chaffee and McLeod 1973). We therefore expect:

H1: News topic avoidance is a more frequent behavior than general news avoidance.

Predictors of News Non-attendance

Ultimately, it is of interest *why* people avoid news. Only with such knowledge can journalism work on solutions to prevent growing shares of news avoidance. At the same time, understanding why people avoid news helps to outline which part of the audience is more susceptible and affected by non-attendance to news. Lastly, for our goal to conceptually distinguish between types of news non-attendance, we identify reasons for avoiding news in the earlier research.

Broadly speaking, research has identified three different types of news avoidance predictors: *cognitive restrictions*, *quality assessments*, and *personal relevance*. Starting with cognitive restrictions, humans are “cognitive misers” and try to avoid a high cognitive load as well as negative mood (Fiske and Taylor 1991; Zillmann 1988). In earlier decades, research investigated the alleviating function of media use, for example for stress (e.g., Bryant and Zillmann 1984), but recently news exposure has been identified as a cause for stress and negative affect as well (Hoog and Verboon 2020; Schmitt,

Debbelt, and Schneider 2018). More specifically, news overload, as a state where too much news exposure causes cognitive discomfort for users, has been identified as a driver of news avoidance, as has the fear of conflict and getting into a negative mood (Newman et al. 2017; Song, Jung, and Kim 2017). News fatigue and fatigue about a specific news issue have furthermore been found to predict news avoidance and issue avoidance (Song, Jung, and Kim 2017; Gurr and Metag 2021). We will therefore investigate the role of news overload, news fatigue, and conflict avoidance as drivers of news avoidance.

Second, following the uses and gratifications approach (Katz, Blumler, and Gurevitch 1973), to use news, quality perceptions need to be high enough so that people see enough “information utility” (Hastall 2009; Palmer and Toff 2020; Palmgreen, Wenner, and Rayburn 1981). In turn, the (low) quality of news content is a driver of news avoidance (Metag and Arlt 2016). In addition, the level of conflict in the news has been described as another content-related reason for why (young) people avoid the news (Toff and Palmer 2019; Edgerly 2017). Moreover, the value of news and trust in news are inherently related (Strömbäck et al. 2020). While some studies find rather high and stable trust in news (Hanitzsch, Van Dalen, and Steindl 2018; Brosius, Ohme, and de Vreese 2021), perceptions of news media as misinforming exist as well (Hameleers et al. 2021). Chances of encountering misinforming content, however, can lead to subsequent avoidance of this information source: “[P]eople sometimes believe information that turns out to be flawed. These kinds of false truths can suppress or distort information seeking” (Case et al. 2005, 358). Hence, perceiving the media as misinforming might drive levels of avoidance even further (Benton 2019; Wenzel 2019). Direct assessments of this relationship are sparse, but Hameleers, Brosius, and de Vreese (2022) find misinformation perception to be negatively related to TV and newspaper usage (but not to social media and alternative news source usage). We will therefore investigate the role of misinformation perceptions as a driver of types of news non-attendance. Third and not surprisingly, personal relevance of news has been found to counter news avoidance. A higher need for news (Van den Bulck 2006), higher levels of political interest (Shehata 2016), and a civic duty to follow news (Toff and Palmer 2019; Villi et al. 2021) are negatively related to news avoidance. News avoiders, however, are not necessarily uninformed, but inform themselves via means other than news media and still participate in society (Ohme et al., 2022; Woodstock 2014)

Having identified drivers of news avoidance, this study, first, investigates the relationship between these predictors and *low levels of news usage, general news avoidance, and news topic avoidance*. Summing up this endeavor, we ask:

RQ2: Do (a) news overload, (b) news fatigue, (c) misinformation perception, (d) conflict avoidance, (e) need for news, (f) duty to keep informed, and (g) political interest predict low news usage, general news avoidance and news topic avoidance?

Alleviating Factors for General News Avoidance

News avoidance is a usage phenomenon that has mostly been studied in isolation. In today’s digital media environment, however, a variety of news use behaviors take place simultaneously. For example, one might avoid some news while at the same time still

curate one's own digital media diet. Such simultaneous occurrences might have a moderating function for certain drivers of news avoidance and need to be explored. Starting from the three reasons for avoiding news - cognitive restrictions, quality assessments, and personal relevance - we searched the literature for other usage behaviors especially afforded by a digital media environment that (1) can occur in parallel to news avoidance, and (2) have the potential to attenuate known reasons for why people avoid news. This is an exploratory approach that does not claim to be exhaustive in the phenomena we study. Rather, it showcases the possibility to study different usage phenomena in conjunction, when investigating outcomes of news (non-)attendance.

News Snacking

Among cognitive perceptions, news overload can be a reason for news avoidance (Song, Jung, and Kim 2017). Hence, people decide to intentionally avoid the news because they experience a cognitive load they perceive as too high. When cognitive load is higher, the higher the engagement with input is, both when exposing to content, but also when processing it (Fisher et al. 2018; Lang 2000). A reason to lower such overload is a shallower engagement with content. Recently, the snacking of news has been identified as such a behavior (Costera Meijer & Groot Kormelink, 2015; Sveningsson, 2015), where users skim through news, mostly on a headline level, and thereby show only superficial engagement, potentially with lower learning outcomes (Schäfer 2020; Ohme & Mothes, 2020). We understand news snacking as a function of acceleration of life (Rosa 2003) and the ubiquitous access to news via channels (e.g., mobile devices) and platforms (e.g., social media). It is therefore different from short news attendance in general, as news snacking can happen in formerly empty times or in-between activities. Hence, news snacking can potentially help to attenuate news overload as the style of short news attendances can help to keep up do date without in-depth engagement and therefore lowers the chances of news avoidance all together. We therefore explore whether the relationship between news overload and news avoidance is moderated by the extent to which people show short, intermittent attendance to news.

RQ3a: Does news snacking moderate the relationship between news overload and general news avoidance?

Misinformation Perceptions

For quality assessments, not trusting the news can result in active avoidance and recent debates about media quality have led to a perception of news misinforming citizens (Hameleers et al., 2021). Research has shown that perceiving news as misinforming can lead to active news avoidance (Benton, 2019; Wenzel 2019). Restoring trust in news is difficult, as users have only limited agency to change news flows. One possibility that is available to users to counter misinformation, however, is the flagging, commenting on, or correcting of false information online as a new form of civic intervention (Kunst et al. 2021). While verification engagement may not solve the issue of misinformation, such behavior increases information efficacy among users, which in turn can attenuate news avoidance and feelings of overload (Park, 2019; Oh et al., 2021). In the specific

situation of perceiving news as misinforming, feeling competent to engage in behaviors like flagging and commenting on misinforming content may decrease the need to avoid news actively, as users know which information they can trust - and which not. We, therefore, investigate if verification engagement moderates the relationship between misinformation perceptions and news avoidance.

RQ3b: Does verification engagement moderate the relationship between misinformation beliefs and general news avoidance?

News Curation

On personal preferences, a high need for news is predicted to counter news avoidance directly (Van den Bulck, 2006). However, this need may be difficult to meet in a media environment where news is affluent, especially on digital and mobile media platforms (Oh et al., 2021). Hence, increasing the chance to receive the news that users want may even decrease the chance of news avoidance further. News curation, the selection, filtering, and engagement with specific news on digital platforms can (1) directly determine content users will see in their news diet, but (2) to also feed into algorithmic decision-making processes that determine what users see in the future (Lu, 2020; Thorson & Wells, 2016). Hence, users who engage more often in news curation may increase the relevance of news content they are exposed to. News curation behavior is believed to be as high as 80% in countries like Turkey, Brazil and Mexico; in the Netherlands, almost half of the population engages in some type of news curation behavior (Merten, 2020). News curation has recently been discussed in the realm of creating attitude-consistent exposure environments (Merten, 2020; Bode et al., 2017), potentially with problematic outcomes, such as affective polarization and political animosity (Guess et al., 2021). Nevertheless, taking the starting point that news curation results in a more confined news diet for users, need for news may be especially efficient to counter news avoidance, if users show high levels of news curation behavior.

RQ3c: Does news curation moderate the relationship between need for news and news avoidance?

Method

Sample

In total, 304 participants were recruited via the research company Panel Inzicht between November and December 2020 with quotas matching the Dutch population in terms of age, gender. The respondents had a mean age of 47.16 ($SD = 16.50$ years), and 48% of them were women. In terms of education, 11% of the respondents had a low education level, 37% had a moderate educational degree, and 52% had a high educational level. The sample is thereby slightly higher educated than the Dutch population average. In a longitudinal study, days of participation vary between respondents. As specified in the pre-registration, participants for which measurement on at least two days exist were included in the analysis. This sub-sample ($n = 189$) did not deviate in age, gender, and education

from our original sample.¹ This results in a total number of 2226 observations across 14 days, with an average of approx. 11 days of participation per respondent.

Design

A daily longitudinal approach was chosen to address a potential recall bias of news non-attendance. It may be hard for respondents to remember news attendance correctly as a general behavior, or across larger time-periods, and especially how often they intentionally avoided news, considering that such motivations and attitudes face an especially high recall challenge (Slater 2004; Ohme et al., 2016). Asking questions daily may alleviate some of these concerns, with the high frequency of measurements also helping to establish a greater variation in gathered responses. This is important in our case, as people may avoid news on one day but not another. It also gives us the opportunity to ask about daily news topics.

In addition, developments in the current digital media environment bring new opportunities for communication research. In particular, conversational agents such as chatbots may be particularly useful for media exposure research, because more natural and conversational interactions can occur between the participants and the survey tool (Ischen et al., 2020). For the topic of news avoidance, which is likely subject to a social desirability bias (e.g., Villi et al., 2021) chatbots may be an important means for quantitative research to arrive at more accurate self-reports, as they are perceived as more anonymous and therefore may increase self-disclosure of respondents (Ischen et al., 2020). Specifically, they may be able to come close to the conversational style of qualitative interviews, which has been shown to be very effective in gathering rich insights in news non-attendance (e.g., Ahrouni et al. 2021; Edgerly, 2018; Toff & Palmer, 2019, Villi et al., 2021). As such, this study makes a first step towards this direction, and collects data from respondents both with a traditional online survey and with a chatbot developed specifically for this study.²

Procedure

Participants were invited to answer daily questionnaires about their news consumption and avoidance behavior for 14 days, being randomly assigned to provide answers via a chatbot (using Skype as a messaging application), or via an online survey (Qualtrics). The questions were the same in both conditions. The chatbot condition used an extension of the Conversational Agent Research Toolkit (Araujo, 2020) for longitudinal designs. Participants received notifications daily to answer questions either directly by the chatbot via the messaging application, or via email, depending on the condition to which they were assigned. The study was approved by the Ethical Review Board of the University of Amsterdam (Ethical Approval Number: 2020-PCJ-12371) and pre-registered.³

Measures

Dependent Variables

To account for the longitudinal design of the studies, with varying days of participation between participants, we rely on relative measures that were calculated on an individual

data level. For this, the frequency of a reported behavior is divided by the days of participation (see Ohme et al., 2016). We asked respondents daily how often in the last 24 h they did access news (for full survey wordings see pre-registration). The response categories “Once or twice” and “Not at all” were defined as low levels of news usage, following procedures by Shehata & Strömbäck (2018) and transferred into a dichotomous variable of *low news usage* (1 = yes, 0 = no). Ultimately, it is a debatable question what constitutes as low news usage. We chose the described cut-off point (1) because it is below average of daily news exposure in our sample (median = 3-5 times a day) and (2) because the digital media environment increases the likelihood of news encounters, for example via push-messages, inadvertent exposure, as part of home-pages of email providers. The measures of all four days were added and the summative index ($M = .74$, $SD = 1.1$, $Min = 0$, $Max = 4$) was subsequently divided by the number of days of participation of each respondent.⁴ The result is a measure of low news use on a continuous scale from 0–1, whereas 1 means low levels of news use on all days of survey participation, 0 means no low levels of news usage on all days of participation ($M = .34$, $SD = .36$, $Min = 0$, $Max = 1$). Values between 0–1 describe different likelihoods of low news use.

Daily general news avoidance was assessed by asking respondents who reported low levels of news use, whether they did find themselves actively trying to avoid news in the last 24 h, with response categories ranging from Never (1) to (Almost) Always (5). The response categories were transformed into a dichotomous variable, where respondents who reported that they never actively avoided news scored 0, while all other responses were coded as 1. The daily values were summed and divided by the days of participation on the individual response level, resulting in a relative, continuous measure of general news avoidance ($M = .13$, $SD = .26$, $Min = 0$, $Max = 1$).

To assess *daily topic news avoidance*, we determined a major same-day news topic on a daily basis.⁵ Respondents were asked whether they had heard about the news topic since the last survey. If they indicated they had not heard about the topic, they were asked whether this was because they “*did not seek any news today*”, “*the topic did not come up when they used news*”, “*they avoided outlets that would report such a topic*”, they “*try to avoid these kinds of topics in general*”. Only the latter response addresses the avoidance of a topic and was therefore used to measure *daily news topic avoidance*, as a dichotomous variable (1 = yes, 0 = no). This choice was made as it measures the successful avoidance of a topic. The dichotomous variable for each day was transformed in a relative, continuous index, as described above, by dividing the summative index of responses given on each day of participation on an individual level by the days of participation of the respondent ($M = .007$, $SD = .03$, $Min = 0$, $Max = 0.3$). As becomes visible from the very low mean, topic news avoidance was relatively rare. The variable therefore prevents us from using it as a dependent variable in multivariate analysis. To still present relevant information on the attendance to daily news topics, we rely on the measure of *daily topic non-usage* (i.e., whether respondents had heard about a news topic or not). This was calculated as a relative index, whereas 1 means people have not heard about a topic on all days they participated, 0 means they have heard about all topics asked about on the days they have participated ($M = .46$, $SD = .35$, $Min = 0$, $Max = 1$).

Table 1. Overview about descriptive measures.

	M	SD	Min	Max	Cronbach's Alpha
News overload	3.64	1.55	1	7	.85
News fatigue	3.26	1.64	1	7	.92
Misinformation perception	3.03	1.28	1	7	.92
Need for news	5.55	1.23	1	7	.90
Duty to keep informed	5.88	1.19	1	7	–
Political interest	6.94	2.20	1	10	–
News curation	2.68	.73	1	5	.73
News snacking	3.95	.59	2	5.5	.70
Verification engagement	1.77	.73	1	4.25	.81

Note: $n = 189$.

Independent Variables

The full descriptions of the independent measures can be found in the pre-registration of this study. The following items were measured by asking for agreement to statements on a 7-point Likert scale and a summative index was formed for each measure. Descriptives for all variables can be found in [Table 1](#).

News overload was measured with three items (see Song et al., 2017) by asking how strongly respondents agreed to items like “*Feel overloaded with the amount of news available on the media*”. *News fatigue* was measured with three items (see Song et al., 2017) by asking how strongly respondents agreed to items like “*I’m tired of receiving and processing news*”. *Need for news* was again measured with three items (see Song et al., 2017) by asking respondents how strongly they agreed to items like “*I enjoy keeping up with the news*”. Misinformation perceptions were measured by asking respondents how strongly they agree to seven items (Hameleers et al., 2021), such as “*The news media do not report accurately on facts that happened*”. *Conflict avoidance* was measured as a single-choice question, where respondents were asked what describes them best: “*trying to avoid getting into political discussion because they can be unpleasant*” (6%), “*neither trying to avoid nor enjoying political discussion*” (56%), or “*enjoying political discussion even though it sometimes leads to arguments*” (37%). The variable was then re-coded so that a higher value reflects conflict avoidance. *Duty to keep informed* was assessed by asking for agreement of respondents to the statement “*It is important that people in society are informed about news and current affairs*” (see Trilling & Schönbach, 2013). *Political interest* was measured – this time on a 10-point scale - by asking respondents how interested, generally speaking, they are in politics.

Moderators

To assess the level of *news curation*, we developed four items based on suggestions by Thorson & Wells (2016) and asked respondents how often (1 = Never; 5 = Almost always) they “*Start or stop following certain news sources to see more / less of the content they post and share*”, “*Start or stop certain friends or followers to see more / less of the content they post and share*”, “*Like or react to content from certain news sources to see more / less of the content they post and share*”, “*Like or react to content from certain friends or followers to see more or less of the content they post and share*” and calculated an index measure.

News snacking was measured by forming an index from the agreements of respondents to three⁶ statements (based on Ohme & Mothes, 2022): “*When I’m waiting for*

something or have time while being on the go, I quickly check the news online”, “When I’m waiting for something or have time while being on the go, I inform myself online in detail about current affairs” (reverse coded), or “The Internet is a good place for me to read long political articles or watch long political videos” (reverse coded).

Verification engagement was assessed by asking how often respondents engaged in four activities (1 = Never; 5 = Almost always) if they came across a news item they disliked, derived from Kunst et al. (2021): “Reported the news item if there was an option to flag”, “Disliked the news item”, “Called upon other users to report the news item”, “Wrote a user comment”.

Results

RQ1 asked how strongly low levels of news seeking are indeed related to expressed avoidance motivation. A first descriptive analysis shows that about 27% of our sample reported low news usage, but of those, only 39% said they did not use news on any respective day because they actively avoided it. This means, only 11% of our sample shows low levels of news usage because they avoid news (Table 2). When turning to strong avoidance motivations (i.e., participants mentioning they (almost) always found themselves to actively avoid news), only 4.5% of our sample showed low levels of news usage *and* expressed high avoidance motivations. While this points indeed to a relation between low levels of news seeking and avoidance motivations, most respondents did not or little attend to news for other reasons.

For specific news topics, on average, 48% of respondents did not hear about the news topic we asked them about on every specific day. When asking about why people think they have not come across a specific topic, on average, only 1% of respondents said this is because they avoid news topics like this (Table 2). People either said they did not seek news on that day (37%) or that the topic did not come up (60%). Considering that 11% of the sample reported general news avoidance but only 1% showed deliberate news topic avoidance on a daily basis, H1 that predicted news topic avoidance to be a more frequent behavior than general news avoidance does not receive empirical support. A Fisher’s exact test confirmed the independence of general news avoidance and topic avoidance ($p = .611$).

Multiple OLS regression analyses were conducted to test for predictors of low news usage and general daily news avoidance. We could not add *daily news topic avoidance* as a dependent variable to the multivariate analysis, as variation of this infrequent behavior was too low. As a post-hoc assessment not specified in the pre-registration, we added the relative measure of daily topic non-use (i.e., whether respondents had heard about a news topic or not) as a dependent variable to the third model (Table 3). The variance inflation factor (VIF) that tested for multicollinearity issues was below 5 in all three

Table 2. Frequencies of news non-attendance.

Type	Low News Attendance		Intentional News Avoidance	
	Low general news usage	Daily news topic non-usage	General news avoidance	Topic news avoidance
Share of sample ($n = 189$)	27 % ($n = 51$)	47 % ($n = 91$)	11 % ($n = 20$)	1 % ($n = 2$)

Table 3. Predictors of news non-attendance.

	(1) Low News Usage	(2) General News Avoidance	(3) Topic Non-Attendance*
Female	.177* (.056)	.044 (.039)	.159* (.055)
Age	-.074 (.002)	.030 (.001)	-.235** (.002)
Education	-.052 (.019)	-.090 (.014)	.007 (.019)
Survey Condition	.067 (.051)	.075 (.035)	-.083 (.050)
News Overload	-.007 (.023)	.267** (.016)	.024 (.023)
News Fatigue	.144 (.023)	.029 (.016)	-.016 (.023)
Conflict Avoidance	.014 (.049)	.029 (.034)	-.037 (.048)
Misinformation perception	-.136+ (.021)	.068 (.015)	.088 (.021)
Political Interest	-.122 (.015)	.083 (.010)	-.190* (.015)
Duty to keep informed	.122 (.038)	-.002 (.027)	.302* (.038)
Need for news	-.355* (.039)	-.388** (.027)	-.235+ (.039)
<i>N</i>	189	189	186
adj. <i>R</i> ²	.190	.225	.156

Standardized beta coefficients; Standard errors in parentheses.

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

* Note: Topic non-attendance was used instead of daily news topic avoidance, which lacked sufficient variance to be included in multivariate analysis.

models (Table 3). Need for news has the highest VIF in all models, with a value of 4.3. This does not indicate strong concerns about high linear relation between two or more independent variables (Allison, 1999). A post-hoc power analysis (Faul et al., 2009) revealed sufficient statistical power for all regression models, including interaction terms with a minimum of .93. Only Model 3 (Table 3) is slightly underpowered (.77) to detect coefficients on a probability level of $p \leq .001$, but has sufficient power for higher probability levels.

RQ2 asked about the predictors of three types of news non-attendance. Women showed lower general news as well as news topic usage. With age being a negative predictor of daily topic non-use, younger people seem to miss certain news topics more often. The level of education and the survey condition were no relevant predictors in all three models.

Low news usage was negatively related to misinformation beliefs and need for news. This means, people who think more strongly that media are misinforming are less likely to also be low news users; i.e., just because they are critical about media quality and trust does not mean they do not attend media often on a daily basis. In turn, people who enjoy news and have a high need for it are also the ones who are less likely to receive no or very little news per day.

For *general news avoidance*, a high level of need for news was a negative predictor, while news overload was a strong, significant predictor of people saying they had low news usage because of avoidance motivations. None of the other predictors was significantly related to general news avoidance.

Higher political interest and need for news were negatively related to *daily topic non-use*. This means, higher interest in politics and enjoyment of news decreases the likelihood of not having heard about the daily news topic. Interestingly, duty to keep informed, which was no significant predictor of low news usage and general news avoidance, was strongly positively related to daily topic non-use. The more people agreed that following the news is a civic duty, the less often they heard about the news topic we asked about.

In sum, we see a difference between predictors of low news usage and general daily news avoidance, which speaks for the conceptual distance of these two measures. News overload is a clear predictor of news avoidance but not for low news attendance. Misinformation perceptions are related to low news usage but do not predict avoidance. Need for news, however, is an almost equally strong negative predictor for both, low news usage and general news avoidance.

Lastly, we were interested in whether other news usage phenomena that potentially occur simultaneously with news avoidance could attenuate this type of news non-attendance. All predictors from the analysis of direct relationships were entered again. For reasons of simplicity (and the hard to interpret direct relationships in models with interaction terms), these variables are cut in [Table 4](#).

First, we investigated the interplay of perceived news overload and the prevalence of news snacking behavior as predictors of general daily news avoidance. Indeed, we find a significant, positive interaction of the two continuous variables. This means that the already positive relationship between news overload and news avoidance is intensified if people show high levels of short, intermittent news attendance on the go (RQ3a; [Table 4](#), Model 1). As news snacking goes up, the effect of news overload on news avoidance increases (see [Figure 1](#), Panel A). News snacking, hence, does not attenuate the role of news overload. Rather a symbiosis is likely where people who perceive news overload as high and often “snack” news have the highest likelihood of news avoidance. Second, verification engagement was tested as a moderator for the relationship between misinformation perceptions and news avoidance. The interaction was negative and marginally significant ($p = .077$), suggesting that higher misinformation perceptions result less likely in general news avoidance for people who engage more often in verification engagement (RQ3b; [Table 4](#), Model 2). As verification engagement goes up, the effect of misinformation beliefs on news avoidance decreases (see [Figure 1](#), Panel B). Third, we were interested in the attenuating role of news curation behavior for the relationship between need for news and news avoidance. The analysis of direct effects could already

Table 4. Moderation analysis predicting general daily news avoidance.

	(1) General Daily News Avoidance	(2) General Daily News Avoidance	(3) General Daily News Avoidance
(presentation of direct relationships omitted)			
News Snacking	-.143 (.040)		
News Overload* News Snacking	.319 * (.009)		
Verification Engagement		.326* (.058)	
Misinformation perceptions* Verification Engagement		-.443⁺ (.016)	
News Curation			.551* (.092)
Need for News* News Curation			-.726* (.016)
<i>N</i>	189	189	189
adj. <i>R</i> ²	.246	.222	.236

Standardized beta coefficients; Standard errors in parentheses.

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

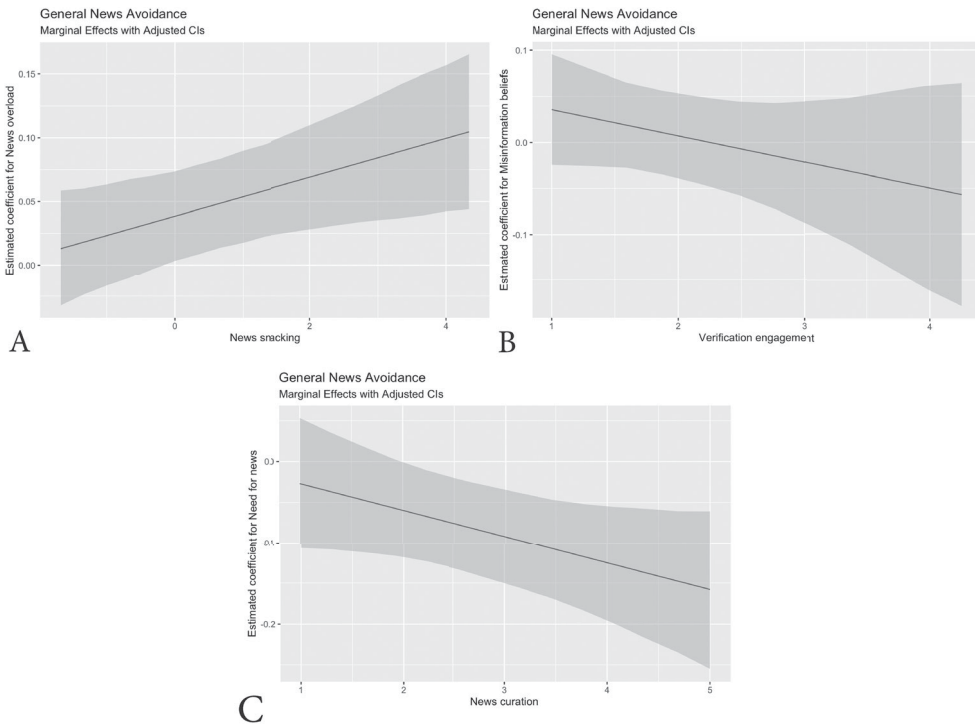


Figure 1. Plots on continuous interaction terms.

show that people with a high need for news avoid news significantly less often. We now see that this relationship is significantly moderated through news curation behavior (Table 4, Model 3). As news curation goes up, the effect of need for news on news avoidance increases (see Figure 1, Panel C). This suggests that news curation increases the personal relevance of the news diet of users with high need for news, and gives them even less reason to actively avoid news. News curation here, hence, can bolster the countering function of a high need for news (RQ3c). The continuous interaction terms are plotted using the R package *interplot* (Solt & Hu, 2018) in Figure 1.

Discussion

This study investigates the relationship between low news usage and active news avoidance, further distinguishing between general news avoidance and news topic avoidance. Moreover, we take a starting point in the idea that parallelly occurring usage behaviors might interact with each. This study thereby has three main contributions.

Low News Usage and News Avoidance are Different

This is one of the first studies that empirically tries to distinguish between low news usage and news avoidance. Roughly 40% of low news attendance is due to intentional news avoidance, while the majority is explained by other reasons. Based on the frequencies, a test of independence, and differences in predictors, our study corroborates the distinct

nature of low news usage and news avoidance, as proposed by Skovsgaard and Andersen's (2020). Hence, future research should not treat low news exposure as equivalent to news avoidance. Only a minor share of low news usage is due to active avoidance motivations, and both are partly driven by different predictors.

Large Gap Between General News Avoidance and News Topic Avoidance

While a relevant share of our sample reported general news avoidance as a reason for low news attendance, almost no one reported not hearing about certain news topics because they avoided this topic. How can the difference between 11% of news avoiders and 1% of news topic avoiders be explained?

One reason is *the selection of topics*. We asked for a Top 10 news topic on a major Dutch news website (e.g., Dutch Covid-19 updates, 2020 US election counts, international armed conflicts, and national politics). Almost half of the sample did not hear about the daily topic, which shows that topics were not too popular to miss. Previous research found avoidance patterns for topics very high on the news agenda, such as immigration, an upcoming election, or the Covid-19 pandemic (Marcinkowski and Došenović 2020; Metag & Arlt, 2016; Ohme et al. 2022; Ytre-Arne & Moe, 2021). Future research should keep a closer eye on which topics are avoided - our study concludes that it may not be the regular big news topics of the day.

A second explanation for the difference between general and topic news avoidance is the *level of engagement with content*. It is possible that avoidance does not occur in a first, headline-level of exposure but in a second, higher level of involvement with news items (see Ohme & Mothes, 2020; Toff & Nielsen, 2018). It is therefore possible that the noticing of a topic sparks avoidance motivations and prevents further engagement with the topic. Future research should therefore help to better understand what it means to avoid a topic by differentiating between different levels of exposure.

A third explanation of the finding that users express general news avoidance, but no topic avoidance is the *specificity of assessment*. It is possible that the more specific we get in the assessment of avoidance behavior, the less often people report it. The diary design of this study does exactly this, while most other studies have used one-time assessments of news avoidance (e.g., Song et al., 2017) or retrospective interviews (Edgerly, 2017; Toff & Palmer, 2019) that afford higher cognitive effort to recall single instances of avoidance. Our results do not square with the assessments that up to half of a given population avoids news (see Toff & Palmer, 2019). We therefore need to ask how suited our already disputed ways of measuring media exposure (see De Vreese & Neijens, 2016) are when assessing phenomena – such as news avoidance - that conflate behavioral frequencies (i.e., low news usage) with intentions (i.e., active avoidance). For the assessment of news avoidance, where cognitive efforts of squaring frequencies with intentions makes recall biases even more likely, there is the danger of not assessing media exposure behavior, but media exposure *perceptions*.

Digital News Engagement Can Impact Causes of News Avoidance

Third, the study investigates how relevant drivers of news avoidance are, if they occur in parallel to other usage patterns: News snacking can reinforce the role news overload for

news avoidance; news curation behavior makes it even less likely to avoid the news for people with high need for news; verification can help to attenuate the role misinformation beliefs have on news avoidance. In sum, testing the interplay between common predictors of news avoidance and other, frequently occurring media usage behaviors suggest that studying them in isolation may over- or underestimate both their prevalence and effects. We do not claim the selection of behaviors to be exhaustive, rather this informed selection tries to showcase the value of looking beyond a single concept in a study, if this behavior is likely to occur in parallel with other, related user activities. The study provides new avenues here for investigating drivers of news (non-)attendance in a more encompassing way and future research should investigate the theoretical mechanisms that news usage interplays are driven by.

This study has several limitations. First, while this is one of the first studies that applies a survey with a conversational agent in a general population sample that resembles the Dutch population in age, gender, and education with the help of the conversational agent research toolkit (Araujo, 2020), the sample is not representative for the population as such. But by showcasing the scalability of such a methodological approach (see Zarouali et al., 2022), we encourage future studies to apply and explore strengths and weaknesses of such longitudinal diary studies further. Second, we try to decrease recall bias by asking respondents about news usage and avoidance on the same day and about specific topics, but nevertheless rely on self-reports that can still be subject to other recall biases (Slater, 2004; Prior, 2009). Moreover, we did not distinguish further between types of news topics. Future research may test whether topic avoidance occurs more frequently for more or less current topics. Third, we use a new approach in measuring news avoidance by asking about the avoidance of specific topics on a daily basis but only find this to be the case in very few cases. The low variation in this measure prevented us from running multivariate analyses with news topic avoidance as a dependent variable and we could not test parts of our pre-registered hypothesis and research questions. In addition, the threshold that was set to measure low news use follows previous research (Shehata & Strömbäck, 2018), but does not distinguish between duration, intensity, and quality of usage and future research should find ways to distinguish low news use more precisely. Fourth, the measure of verification engagement did not specifically address encountering misinformation, but rather news items that a user dislikes. This may be the reason why we only find limited support for the expected interaction effect of misinformation perceptions and verification engagement to explain levels of news avoidance. Fifth, using a longitudinal design that relies on frequent participation by the respondents comes at the expense of panel attrition and results in potential sample deviations. Based on specified conditions in the pre-registration, we only included 189 respondents who participated on two or more days. Although we do not find sample deviations for age, gender, and education, we do have to consider the rather small number of respondents in this study.

News avoidance is a frequently discussed and reported usage phenomenon and our study shows that a significant share of low news usage can be attributed to avoidance motivations. From a broader angle, the findings beg the question how problematic news avoidance indeed is, if only a relatively small share of people engage in such a behavior. The findings that news snacking, news curation, and verification engagement can impact the impact potential causes that news avoidance can have, provides a starting

point for journalism research to explore solutions to the problem that citizens avoid the main product of journalism: news.

Notes

1. Goodness of fit tests were used to test for sample differences between the original sample ($N = 304$) and study participants ($n = 189$) for age ($M = 47$, $SD = 16$; $p = .468$), gender (46% female; $p = .705$), and education (11% low, 38% middle, high 52%, $p = .345$).
2. This study is part of a larger project with both substantive and methodological objectives, whereas the former is the focus of this study. The methodological objective of comparing survey modes is not part of the current study. Instead, we control for the survey mode (chatbot vs. online survey) as a dichotomous variable in all analyses.
3. https://osf.io/ws6ax/?view_only=58a6fa7500324be0a612398b0772054e
4. For example, a respondent who reported low news exposure on two days, but participated on all four daily surveys, scores 0.5 on low news attendance.
5. Every day at 4 p.m., researchers selected one topic among the Top 10 listings on the major Dutch news website nos.nl. Topics varied in terms of national (e.g. Covid vaccination progress) or international focus (e.g. U.S. Presidential election) and were selected to guarantee thematic versatility across the 14 days of study.
6. The original planned six items specified in the pre-registration did not reach a sufficient internal consistency. We therefore used the above specified three, based on results from a factor analysis. A robustness check was performed that showed that results are similar when using the six- instead the three-item measurement.

Disclosure Statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by Research Priority Area 'Communication', Faculty of Social and Behavioural Sciences.

ORCID

Theo Araujo  <http://orcid.org/0000-0002-4633-9339>

Brahim Zarouali  <http://orcid.org/0000-0003-1042-4635>

References

- Aharoni, T., N. Kligler-Vilenchik, and K. Tenenboim-Weinblatt. 2021. "Be Less of a Slave to the News": A Text-to-Material Perspective on News Avoidance among Young Adults." *Journalism Studies* 22 (1): 42–59. doi:10.1080/1461670X.2020.1852885.
- Allison, P. D. 1999. *Multiple Regression: A Primer*. Pine Forge Press.
- Araujo, T. 2020. "Conversational Agent Research Toolkit: An Alternative for Creating and Managing Chatbots for Experimental Research1." *Computational Communication Research* 2 (1): 35–51. doi:10.5117/CCR2020.1.002.ARAU.
- Armstrong, C. L., M. J. McAdams, and J. Cain. 2015. "Hazy Habits: What Kinds of News do Young People Want?" *Southwestern Mass Communication Journal A* 31 (1): 1–34.
- Benton, J. 2019. Why do Some People Avoid News? Because they don't Trust us—Or Because they don't Think We Add Value to their Lives? <https://www.niemanlab.org/2019/06/why-do-some->

people-avoid-news-because-they-dont-trust-us-or-because-they-dont-think-we-add-value-to-their-lives/.

- Bode, L., E. K. Vraga, and S. Troller-Renfree. 2017. "Skipping Politics: Measuring Avoidance of Political Content in Social Media." *Research & Politics* 4 (2): 2053168017702990. doi:10.1177/2053168017702990.
- Brosius, A., J. Ohme, and C. H. de Vreese. 2021. "Generational Gaps in Media Trust and its Antecedents in Europe." *The International Journal of Press/Politics* 194016122110394), doi:10.1177/19401612211039440.
- Bryant, J., and D. Zillmann. 1984. "Using Television to Alleviate Boredom and Stress: Selective Exposure as a Function of Induced Excitatory States." *Journal of Broadcasting* 28 (1): 1–20. <https://doi.org/10.1080/08838158409386511>.
- Case, D. O., J. E. Andrews, J. D. Johnson, and S. L. Allard. 2005. "Avoiding Versus Seeking: The Relationship of Information Seeking to Avoidance, Blunting, Coping, Dissonance, and Related Concepts." *Journal of the Medical Library Association: JMLA* 93 (3): 353–362.
- Chaffee, S. H., and J. M. McLeod. 1973. "Individual vs. Social Predictors of Information Seeking." *Journalism Quarterly* 50 (2): 237–245. doi:10.1177/107769907305000204.
- Costera Meijer, I., and T. G. & Kormelink. 2015. "Checking, Sharing, Clicking and Linking." *Digital Journalism* 3 (5): 664–679. doi:10.1080/21670811.2014.937149.
- de Bruin, K., Y. de Haan, R. Vliegenthart, S. Kruikemeier, and M. Boukes. 2021. "News Avoidance During the Covid-19 Crisis: Understanding Information Overload." *Digital Journalism*, 1–17. doi:10.1080/21670811.2021.1957967.
- De Vreese, C. H., and P. Neijens. 2016. "Measuring Media Exposure in a Changing Communications Environment." *Communication Methods and Measures* 10 (2–3): 69–80. doi:10.1080/19312458.2016.1150441.
- Edgerly, S. 2017. "Seeking Out and Avoiding the News Media: Young Adults' Proposed Strategies for Obtaining Current Events Information." *Mass Communication and Society* 20 (3): 358–377. doi:10.1080/15205436.2016.1262424.
- Edgerly, S., E. K. Vraga, L. Bode, K. Thorson, and E. Thorson. 2018. "New Media, New Relationship to Participation? A Closer Look at Youth News Repertoires and Political Participation." *Journalism and Mass Communication Quarterly* 95: 192–212. <https://doi.org/10.1177/1077699017706928>.
- Faul, F., E. Erdfelder, A. Buchner, and A.-G. Lang. 2009. "Statistical Power Analyses Using G*Power 3.1: Tests for Correlation and Regression Analyses." *Behavior Research Methods* 41 (4): 1149–1160. doi:10.3758/BRM.41.4.1149.
- Fisher, J. T., R. Huskey, J. R. Keene, and R. Weber. 2018. "The Limited Capacity Model of Motivated Mediated Message Processing: Looking to the Future." *Annals of the International Communication Association* 42 (4): 291–315. doi:10.1080/23808985.2018.1534551.
- Fiske, S. T., and S. E. Taylor. 1991. *Social Cognition*. MacGraw-Hill.
- Fletcher, R., A. Kalogeropoulos, and R. K. Nielsen. 2020. News Avoidance in the UK Remains High as Lockdown Restrictions are Eased. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2020-07/UK_COVID-19_News_and_Information_Project_Factsheet_8_FINAL.pdf.
- Guess, A. M., P. Barberá, S. Munzert, and J. Yang. 2021. "The Consequences of Online Partisan Media." *Proceedings of the National Academy of Sciences* 118 (14): e2013464118. doi:10.1073/pnas.2013464118.
- Gurr, G., and J. Metag. 2021. Examining Avoidance of Ongoing Political Issues in the News: A Longitudinal Study of the Impact of Audience Issue Fatigue. 21.
- Hameleers, M., A. Brosius, and C. H. de Vreese. 2022. "Whom to Trust? Media Exposure Patterns of Citizens with Perceptions of Misinformation and Disinformation Related to the News Media." *European Journal of Communication* 37 (3): 237–268. doi:10.1177/02673231211072667.
- Hameleers, M., A. Brosius, F. Marquart, A. C. Goldberg, E. van Elsas, and C. H. de Vreese. 2021. "Mistake or Manipulation? Conceptualizing Perceived Mis- and Disinformation among News Consumers in 10 European Countries." *Communication Research*, 009365022199771. doi:10.1177/0093650221997719.

- Hanitzsch, T., A. Van Dalen, and N. Steindl. 2018. "Caught in the Nexus: A Comparative and Longitudinal Analysis of Public Trust in the Press." *The International Journal of Press/Politics* 23 (1): 3–23. doi:10.1177/1940161217740695.
- Hastall, M. R. 2009. "Informational Utility as Determinant of Media Choices." In *Media Choice: A Theoretical and Empirical Overview*, edited by T. Hartmann, 149–166. Routledge.
- Heiss, R., and J. Matthes. 2019. "Does Incidental Exposure on Social Media Equalize or Reinforce Participatory Gaps?" *Evidence from a Panel Study. New Media & Society* 21 (11–12): 2463–2482. doi:10.1177/1461444819850755.
- Hoog, N., and P. Verboon. 2020. "Is the News Making us Unhappy? The Influence of Daily News Exposure on Emotional States." *British Journal of Psychology* 111 (2): 157–173. doi:10.1111/bjop.12389.
- Ischen, C., T. Araujo, G. van Noort, H. Voorveld, and E. Smit. 2020. "I Am Here to Assist You Today": The Role of Entity, Interactivity and Experiential Perceptions in Chatbot Persuasion." *Journal of Broadcasting & Electronic Media* 64 (4): 615–639. doi:10.1080/08838151.2020.1834297.
- Johnson, J. D. 1997. *Cancer-related Information Seeking*. Hampton Press.
- Katz, E., J. G. Blumler, and M. Gurevitch. 1973. *Uses and Gratifications Research* 16.
- Kunst, M., P. Porten-Che , M. Emmer, and C. Eilders. 2021. "Do "Good Citizens" Fight Hate Speech Online? Effects of Solidarity Citizenship Norms on User Responses to Hate Comments." *Journal of Information Technology & Politics*, 1–16. doi:10.1080/19331681.2020.1871149.
- Lang, A. 2000. "The Limited Capacity Model of Mediated Message Processing." *Journal of Communication* 50 (1): 46–70. doi:10.1111/j.1460-2466.2000.tb02833.x.
- Lasswell, H. D. 1948. "The Structure and Function of Communication in Society." In *The Communication of Ideas*, edited by L. Bryson, 84–99. The Institute for Religious and Social Studies.
- Lee, F. L. F., M. C. Chan, H.-T. Chen, R. Nielsen, and R. Fletcher. 2019. "Consumptive News Feed Curation on Social Media as Proactive Personalization: A Study of Six East Asian Markets." *Journalism Studies* 20 (15): 2277–2292. doi:10.1080/1461670X.2019.1586567.
- Lee, S. K., N. J. Lindsey, and K. S. Kim. 2017. "The Effects of News Consumption via Social Media and News Information Overload on Perceptions of Journalistic Norms and Practices." *Computers in Human Behavior* 75: 254–263. doi:10.1016/j.chb.2017.05.007.
- Lu, S. 2020. "Taming the News Feed on Facebook: Understanding Consumptive News Feed Curation Through a Social Cognitive Perspective." *Digital Journalism* 8 (9): 1163–1180. doi:10.1080/21670811.2020.1837639.
- Marcinkowski, F., and P. Do enovi . 2020. "From Incidental Exposure to Intentional Avoidance: Psychological Reactance to Political Communication During the 2017 German National Election Campaign." *New Media & Society* 22 (10): 1461–1482. doi:10.1177/1461444820902104.
- Merten, L. 2020. "Block, Hide or Follow—Personal News Curation Practices on Social Media." *Digital Journalism*, 1–22. doi:10.1080/21670811.2020.1829978.
- Metag, J., and D. Arlt. 2016. "Das Konstrukt Themenverdrossenheit und Seine Messung. Theoretische Konzeptualisierung und Skalenentwicklung." *Medien & Kommunikationswissenschaft* 64 (4): 542–563. doi:10.5771/1615-634X-2016-4-542.
- Narayan, B., D. O. Case, and S. L. Edwards. 2011. "The Role of Information Avoidance in Everyday-Life Information Behaviors." *Proceedings of the American Society for Information Science and Technology* 48 (1): 1–9. doi:10.1002/meet.2011.14504801085.
- Newman, N., R. Fletcher, A. Kalogeropoulos, D. Levy, and R. K. Nielsen. 2017. *Digital News Report 2017*. <http://po.st/lfjFXh>.
- Oh, H. J., Z. Lor, and J. Choi. 2021. "News Repertoires and Political Information Efficacy: Focusing on the Mediating Role of Perceived News Overload." *SAGE Open* 11 (1), 215824402098868. doi:10.1177/2158244020988685.
- Ohme, J., E. Albaek, and C. H. de Vreese. 2016. "Exposure Research Going Mobile: A Smartphone-Based Measurement of Media Exposure to Political Information in a Convergent Media Environment." *Communication Methods and Measures* 10 (2–3): 135–148. doi:10.1080/19312458.2016.1150972.
- Ohme, J., K. de Bruin, Y. de Haan, S. Kruikemeier, T. G. L. A. van der Meer, and R. Vliedhart. 2022. "Avoiding the News to Participate in Society? The Longitudinal Relationship Between News

- Avoidance and Civic Engagement." *Communications*. Advanced online publication. doi:10.1515/commun-2021-0099
- Ohme, J., and C. Mothes. 2020. "What Affects First- and Second-Level Selective Exposure to Journalistic News? A Social Media Online Experiment." *Journalism Studies* 21 (9): 1220–1242. doi:10.1080/1461670X.2020.1735490.
- Ohme, J., and C. Mothes. 2022. News Snacking and Political Learning: Changing Opportunity Structures of Digital Platform News Use and Political Knowledge. [Manuscript submitted for publication].
- Palmer, R., and B. Toff. 2020. "What Does It Take to Sustain a News Habit? The Role of Civic Duty Norms and a Connection to a "News Community" Among News Avoiders in the UK and Spain." *International Journal of Communication* 14: 1634–1653.
- Palmgreen, P., L. A. Wenner, and J. D. Rayburn. 1981. "Gratification Discrepancies and News Program Choice." *Communication Research* 8 (4): 451–478. doi:10.1177/009365028100800404.
- Park, C. S. 2019. "Does Too Much News on Social Media Discourage News Seeking? Mediating Role of News Efficacy Between Perceived News Overload and News Avoidance on Social Media." *Social Media+Society* 5 (3), 205630511987295. doi:10.1177/2056305119872956.
- Poulsen, A., and M. Roos. 2009. "Do People Make Strategic Moves?" *Experimental Evidence on Strategic Information Avoidance*. SSRN Electronic Journal, doi:10.2139/ssrn.1371434.
- Prior, M. 2009. "Improving Media Effects Research Through Better Measurement of News Exposure." *The Journal of Politics* 71 (03): 893–908. doi:10.1017/S0022381609090781.
- Rosa, H. 2003. "Social Acceleration: Ethical and Political Consequences of a Desynchronized High-Speed Society." *Constellations* 10 (1): 3–33. <https://doi.org/10.1111/1467-8675.00309>.
- Schäfer, S. 2020. "Illusion of Knowledge Through Facebook News? Effects of Snack News in a News Feed on Perceived Knowledge, Attitude Strength, and Willingness for Discussions." *Computers in Human Behavior* 103: 1–12. doi:10.1016/j.chb.2019.08.031.
- Schmitt, J. B., C. A. Debbelt, and F. M. Schneider. 2018. "Too Much Information? Predictors of Information Overload in the Context of Online News Exposure." *Information, Communication & Society* 21 (8): 1151–1167. doi:10.1080/1369118X.2017.1305427.
- Schudson, M. 1998. *The Good Citizen: A History of American Civic Life*. Simon & Schuster.
- Shehata, A. 2016. "News Habits Among Adolescents: The Influence of Family Communication on Adolescents' News Media Use—Evidence from a Three-Wave Panel Study." *Mass Communication and Society* 19 (6): 758–781. doi:10.1080/15205436.2016.1199705.
- Shehata, A., and J. Strömbäck. 2018. "Learning Political News from Social Media: Network Media Logic and Current Affairs News Learning in a High-Choice Media Environment." *Communication Research* 0093650217749354. doi:10.1177/0093650217749354.
- Skovsgaard, M., and K. Andersen. 2020. "Conceptualizing News Avoidance: Towards a Shared Understanding of Different Causes and Potential Solutions." *Journalism Studies*, 1–18. doi:10.1080/1461670X.2019.1686410.
- Slater, M. D. 2004. "Operationalizing and Analyzing Exposure: The Foundation of Media Effects Research." *Journalism & Mass Communication Quarterly* 81 (1): 168–183. doi:10.1177/107769900408100112.
- Solt, F., and Y. Hu. 2018. Interplot: Plot the Effects of Variables in Interaction Terms. R package. <https://cran.r-project.org/web/packages/interplot/vignettes/interplot-vignette.html>.
- Song, H., J. Jung, and Y. Kim. 2017. "Perceived News Overload and Its Cognitive and Attitudinal Consequences for News Usage in South Korea." *Journalism & Mass Communication Quarterly* 94 (4): 1172–1190. doi:10.1177/1077699016679975.
- Strömbäck, J., M. Djerrf-Pierre, and A. Shehata. 2013. "The Dynamics of Political Interest and News Media Consumption: A Longitudinal Perspective." *International Journal of Public Opinion Research* 25 (4): 414–435. doi:10.1093/ijpor/eds018.
- Strömbäck, J., Y. Tsfati, H. Boomgaarden, A. Damstra, E. Lindgren, R. Vliegenthart, and T. Lindholm. 2020. "News Media Trust and Its Impact on Media Use: Toward a Framework for Future Research." *Annals of the International Communication Association* 44 (2): 139–156. <https://doi.org/10.1080/23808985.2020.1755338>.

- Sveningssson, M. 2015. "It's Only a Pastime, Really": Young People's Experiences of Social Media as a Source of News About Public Affairs." *Social Media + Society* 1 (2), 2056305115604855. doi:10.1177/2056305115604855.
- Thorson, K., and C. Wells. 2016. "Curated Flows: A Framework for Mapping Media Exposure in the Digital Age: Curated Flows." *Communication Theory* 26 (3): 309–328. doi:10.1111/comt.12087.
- Toff, B., and R. K. Nielsen. 2018. "I Just Google It": Folk Theories of Distributed Discovery." *Journal of Communication* 68 (3): 636–657. doi:10.1093/joc/jqy009.
- Toff, B., and R. A. Palmer. 2019. "Explaining the Gender Gap in News Avoidance: "News-Is-for-Men" Perceptions and the Burdens of Caretaking." *Journalism Studies* 20 (11): 1563–1579. doi:10.1080/1461670X.2018.1528882.
- Trilling, D., and K. Schoenbach. 2013. "Skipping Current Affairs: The non-Users of Online and Offline News." *European Journal of Communication* 28 (1): 35–51. doi:10.1177/0267323112453671.
- Van den Bulck, J. 2006. "Television News Avoidance: Exploratory Results from a One-Year Follow-Up Study." *Journal of Broadcasting & Electronic Media* 50 (2): 231–252. doi:10.1207/s15506878jobem5002_4.
- Villi, M., T. Aharoni, K. Tenenboim-Weinblatt, P. J. Boczkowski, K. Hayashi, E. Mitchelstein, A. Tanaka, and N. Kligler-Vilenchik. 2021. "Taking a Break from News: A Five-Nation Study of News Avoidance in the Digital Era." *Digital Journalism*, 1–17. doi:10.1080/21670811.2021.1904266.
- Wenzel, A. 2019. "To Verify or to Disengage: Coping with "Fake News" and Ambiguity." *International Journal of Communication* 13: 1977–1995.
- Woodstock, L. 2014. "The News-Democracy Narrative and the Unexpected Benefits of Limited News Consumption: The Case of News Resisters." *Journalism* 15 (7): 834–849. <https://doi.org/10.1177/1464884913504260>.
- Ytre-Arne, B., and H. Moe. 2021. "Doomscrolling, Monitoring and Avoiding: News Use in COVID-19 Pandemic Lockdown." *Journalism Studies* 22 (13): 1739–1755. doi:10.1080/1461670X.2021.1952475.
- Zarouali, B., T. Araujo, J. Ohme, and C. H. de Vreese. 2022. "Comparing Chatbots and Online Surveys for (Longitudinal) Data Collection: An Investigation of Response Patterns, Data Quality and User Evaluation.. Manuscript submitted for publication.
- Zillmann, D. 1988. "Mood Management Through Communication Choices." *American Behavioral Scientist* 31 (3): 327–340. <https://doi.org/10.1177/000276488031003005>.