Running head: THE MATTHEW EFFECT IN SOCIAL MEDIA NEWS USE	
THE MATTHEW EFFECT IN SOCIAL MEDIA NEWS USE	
Assessing Inequalities in News Exposure and News Engagement on Social Networ	k Sites (SNS)
Anna Sophie Kümpel	
This paper has been accepted for publication in Journalism (published by	oy SAGE)
Citation: Kümpel, A. S. (2020). The Matthew Effect in social media news use: Assessing	ng inequalities
in news exposure and news engagement on social network sites (SNS). Journalism,	, 21(8), 1083-
1098. https://doi.org/10.1177/1464884920915374	

Abstract

Social network sites (SNS) such as Facebook and Twitter have become a key part of online users' news diets. On SNS, even individuals who are not motivated to seek out news are believed to be exposed to news posts due to the sharing activities of friends or inadvertently witnessing discussions about current events. Research on this *incidental news exposure* (INE) has largely focused on its potential for positive effects on information gain or political participation, while simultaneously turning a blind eye to the inequalities in SNS news exposure and engagement. This article aims to address this issue through proposing and explicating the existence of a "Matthew Effect" in social media news use. It is argued that INE research needs to consider the unequal chances to both be exposed to news on SNS and to actually engage (i.e., read and interact) with 'accidentally' encountered news content.

Keywords: social media, social network sites, incidental news exposure, online news, inequalities, Matthew Effect

The Matthew Effect in Social Media News Use: Assessing Inequalities in News Exposure and News Engagement on Social Network Sites (SNS)

Although originally established as platforms for building and maintaining social relations, social network sites (SNS) such as Facebook and Twitter have become a key part of online users' news diets (Newman et al., 2018). While online news use in general often occurs from activities not focused on getting the news, SNS users appear to be particularly prone to stumble upon news while doing other things on the site (Fletcher and Nielsen, 2018). Considering the characteristics of the SNS information environment, even individuals who are not motivated to seek out news are believed to be exposed to news posts due to the sharing activities of their contacts, sponsored posts by news providers, or algorithmic content curation. This type of exposure has been referred to as incidental news exposure (INE) and can be defined as encountering news or current affairs information without actively seeking it (see Kim et al., 2013; Tewksbury et al., 2001). As reflected in expressions like "accidentally informed" (Tewksbury et al., 2001) or "participation equalizer" (Valeriani and Vaccari, 2016), research on the effects of INE has largely focused on its potential for beneficial effects such as fostering the learning of political information or increasing political participation. Consistent with the underlying assumption of a positive impact, studies have found that INE might be able to reduce the gap in online engagement between citizens with high and low interest in politics (Valeriani and Vaccari, 2016), offers opportunities for learning (Anspach et al., 2019; Bode, 2016; Weeks et al., 2019), and increases the diversity of viewpoints individuals are exposed to (Fletcher and Nielsen, 2018).

However, despite the common conceptualization as "happy accidents," there are good reasons to question the accidentalness of INE (Thorson, 2018). In this article, I argue that INE

research needs to consider the unequal chances to both be *exposed* to news on SNS and to actually *engage* (i.e., read and interact) with 'accidentally' encountered news content. Not only are some SNS users systematically more likely to encounter links to news articles in their feeds, but also more inclined to click on said links and read the full journalistic piece. As previous research has shown (Lee and Kim, 2017), such engagement seems to be essential for positive effects of INE to occur and thus needs to be considered alongside questions of mere exposure when investigating INE's potential. Through discussing prevalent inequalities, I propose the existence of a "Matthew Effect" (Merton, 1968; see also Kümpel, 2019b) in social media news use, suggesting (relative) enrichment among users already interested in news and (relative) impoverishment among those with little or no interest in current affairs information.

Before proceeding to examine the unequal chances of news exposure and engagement on SNS, it will be necessary to outline the basic idea of the Matthew Effect as proposed by Merton (1968) and to briefly discuss research on social inequalities in digital (news) environments. Building on that, I specifically focus on inequalities in social media news use and discuss how homophily, user characteristics, and algorithms create a usage situation in which the notion of *incidental* news exposure (and engagement) needs to be questioned. Finally, the discussion recapitulates the idea of the Matthew Effect in social media news use and considers how SNS users, news providers, and platforms might be able to mitigate inequalities.

The "Matthew Effect"

The term Matthew Effect was proposed by Merton (1968) and initially used to explain why scientists who have already achieved a certain degree of eminence will likely get more credit and recognition for their work than those who are less known among the scientific community. More generally, the Matthew Effect describes a general mechanism of cumulative

advantage with advantageous (relative) positions becoming a resource that produces further (relative) gains (DiPrete and Eirich, 2006). According to Rigney (2010: 10–12), there are three scenarios that can lead to a widening gap between the "rich" and "poor" segments of society: (1) The rich get richer while the poor get poorer (the *absolute* Matthew Effect); (2) The rich get richer while the poor get richer at a slower rate (the *relative* Matthew Effect); and (3) The rich get poorer while the poor get poorer at a faster rate. In all scenarios, inequalities between disadvantaged and advantaged groups increase, with the "rich" consistently being ahead of the "poor."

In mass communication research, the basic idea of the Matthew Effect was mainly discussed against the backdrop of the *knowledge gap hypothesis* (Tichenor et al., 1970). It states that individuals with a higher socioeconomic status are better able to acquire information from the mass media than those of lower status, eventually culminating in increased gaps in knowledge between those societal segments. With the rise of more and more information and communication technologies (ICT) and especially the Internet, researchers have focused on related phenomena of inequality, most prominently reflected in investigations of the "digital divide" (e.g., Hargittai, 2003; Norris, 2001). First focused on a simple division between "those who have access to digital technologies and those who do not" (Hargittai, 2003: 822)—the socalled first-level digital divide or digital *access* divide—, later studies addressed both inequalities in usage (second-level digital divide or digital *capability* divide) and inequalities in users' capacity to translate access and use into favorable outcomes (third-level digital divide or digital *outcome* divide, see van Deursen and Helsper, 2015; van Deursen and van Dijk, 2014; Wei et al., 2011). Research on these different types of digital inequalities has repeatedly shown that the Matthew Effect also pertains to accessing, using, and benefiting from the Internet: Demographic

and socioeconomic factors, as well as differences in abilities, motivations, or (political) interests, are predictive of how individuals make use of ICTs and online (news) media (e.g., Beam et al., 2018; Hargittai and Hsieh, 2013; Mingo and Bracciale, 2018; Strömbäck et al., 2013; van Deursen and Helsper, 2015). Thus, although there is ample evidence that privileged individuals and those already skilled and interested are more likely to benefit from the opportunities offered in high-choice media environments, the literature on INE on SNS raised hopes that using these platforms "might contribute in closing information gaps" (Bergström and Belfrage, 2018: 594; see also Bode, 2016: 43). Even users that have not subscribed to the accounts of news providers or do not interact with news content are believed to be regularly exposed to news due to sharing activities of friends or inadvertently witnessing discussions about current events (e.g., Ahmadi and Wohn, 2018; Fletcher and Nielsen, 2018; Kaiser et al., 2018). While this assumption seems perfectly plausible when considering the range of experiences by predominantly WEIRD (Western, Educated, Industrialized, Rich, and Democratic, see Henrich et al., 2010) researchers and research participants, there certainly are SNS users that are neither attractive to news (i.e., likely to be exposed, see Thorson, 2019) nor inclined to actually engage with news they—if at all—encounter.

Inequalities in Social Media News Use

As briefly mentioned in the introduction, two important aspects are largely missing from scholarly discussions about the potential of INE: 1) differentiating between news exposure and news engagement, and 2) considering the unequal chances to both be *exposed* to news on SNS and to *engage* with the content. This paper starts with acknowledging the non-accidentalness of being exposed to news on SNS and then focuses on the factors that influence whether users go beyond mere exposure and read the full journalistic piece behind encountered news teasers.

Unequal Chances of News Exposure

While the whole idea of *incidental* news exposure essentially paints SNS as a low-choice media environment (Bode, 2016: 43), conceptualizing them as high-choice environments helps to emphasize why 'stumbling' upon news is not as accidental as it sounds. In fact, SNS like Facebook and Twitter are "fundamentally based on the idea of customizability" (Dylko, 2016: 390), meaning that encountering (news) information depends on who users decide to befriend/follow, which accounts they subscribe to, or what types of content they regularly read, click, comment on, or share. Such user decisions are fed into highly responsive algorithms that shape which content is included or excluded in a given SNS user's feed. Accordingly, two types of customization can be differentiated. The first has been labeled user-driven customization (Dylko, 2016), personal curation (Thorson and Wells, 2016), or explicit personalization (Bozdag, 2013). It refers to the idea that the SNS users themselves take steps to adjust their information environment by, for example, explicitly rating displayed news content, following journalists, or subscribing to the pages of news providers. User-driven customization offers good opportunities to increase one's chances of news exposure, but is hardly used by most SNS users. In Germany (22 %), the UK (26 %), and the US (32 %), only between a fifth and a third of those who claim to use SNS for news (!) deliberately follow the page of a news provider (Newman et al., 2018).

The second type of customization—labeled system-driven customization (Dylko, 2016), algorithmic curation (Thorson and Wells, 2016), or implicit personalization (Bozdag, 2013)—describes instances where the system infers what the user might be interested in based on past interactions (e.g., clicking on news posts), dwell times, or the actions of one's social network (e.g., posts that were commented on by friends). Although the customization algorithms of SNS are essentially black boxed (e.g., Kitchin, 2017), there is no doubt that they are biased towards

pleasing the user. Building on an analysis of publicly available Facebook documents, DeVito (2017) identified nine "algorithmic values" that guide which content gets displayed in a given user's news feed. Friend relationships, explicitly expressed interests, and prior user engagement emerged as the most important criteria, suggesting that the (assumed) personal significance of content—and not journalistic relevance or public interest—is the core principle of customization on SNS. This is likely to have intensified at the beginning of 2018, at which time Facebook announced that users will "see less public content like posts from businesses, brands, and media" (Zuckerberg, 2018b) to make the time people spend on the site "more valuable" (ibid.). Posts from family and friends are thus further prioritized, while content from news providers and publishers is only featured prominently when it is able to prompt conversations and reactions by one's social contacts. Considering that a large share of online users worldwide now claim to rely on social media for getting news (Newman et al., 2018), the content curation practices of SNS are certainly not unproblematic—particularly when taking into account that many users seem to be largely unaware of the underlying mechanisms of algorithmic (news) personalization (e.g., Powers, 2017; Schmidt et al., 2019). More than one third (37%) of college students surveyed by Powers (2017: 1325) believed that every post that is shared by the users or news providers they follow is included in their news feeds, 39% were unsure if they are exposed to everything and only a minority of 24% claimed to be aware of system-driven customization.

With user- and system-driven customization practices in mind, the inherently unequal chances of news exposure can be further explored. Assuming a best-case scenario first, one can imagine a SNS user—let's call her Emily—that has always been drawn to news, growing up in a household in which there was a printed newspaper on the porch every day and watching the evening newscast was an indispensable part of family routines (for the critical role of parental

news socialization on news behaviors see, for example, Shehata, 2016; Thorson et al., 2018). Being an avid news fan, following her favorite news providers was equally important to Emily as adding friends to her social network, thus early on opening up "a flow of content" (Thorson and Wells, 2016: 316) to her SNS feed. As she mostly likes, comments on, and shares posts by her equally news-savvy best friends, their actions and contributions usually appear high up in her stream of content, leading to even more current affairs information showing up when she logs in to her Facebook or Twitter account (e.g., David et al., 2019). Furthermore, fueled by her explicitly and implicitly expressed interest in certain sites and content, advertisements from news providers are likely to reach Emily, because they want to target "people who may be similar to their customers" or "interested in [News] or [The New York Times]" (Andreou et al., 2018). Hence, although it might look as if Emily is merely 'stumbling' upon news teasers, her feed is the result of many conscious decisions that, in turn, are reinforced and strengthened by the algorithmic values embedded in SNS recommender systems.

However, news-rich SNS feeds like Emily's are presumably not the norm. Let's imagine another user and call him Tom. Despite being college-educated, Tom was never really invested in following the news and always assumed that everything important will find him even when he does not actively keep up with current affairs (*news-finds-me perception*, see Gil de Zúñiga et al., 2017). A major reason for Tom's news resistance is that reading/watching the news leaves him feeling hopeless and incapacitated, which pushes him to avoid it whenever possible (see Woodstock, 2014 for an analysis of news resisters). As a consequence, he never bothered to 'like' or follow news providers and only uses SNS to stay in touch with his friends or plan parties. Although he sporadically encountered shared news content at the beginning of his SNS usage, Tom never gave the teasers more than a glance and certainly did not click on the provided links.

The machine learning techniques used at SNS, aimed at "[c]onnecting people to the stories that matter most to them" (Facebook Media, n.d.), are thus likely to determine that Tom does not want to hear or see any news and do not display news posts in his feed. Similarly, news providers looking to expand their user base on SNS have little reason to address Tom with their advertising campaigns, thus further corroborating the 'newslessness' of his information environment.

The available data suggests that the experience of most SNS users seems to be closer to Tom's than to Emily's. Building on an analysis of seven million URLs shared on Facebook, Bakshy and colleagues (2015) determined only about 13 % of these links to be hard news content (i.e., related to politics, world affairs etc.). Quite recently, Mark Zuckerberg himself stated that news content makes up just about four percent of users' news feeds (Zuckerberg, 2018a). Although this percentage might increase during periods of heightened political activity (e.g., elections), there is little reason to expect that every SNS user will experience instances of INE. Determined by preexisting interests in news and politics, conscious (news) choices, homophilic social preferences and interactions (i.e., befriending and conversing with like-minded and socially similar people), algorithmically driven recommendation systems, and advertisements build on the aforementioned factors, each SNS user is embedded in highly personalized streams of content that are more likely to feature bits of current affairs information when the user is already interested in and involved with news.

This, however, is only the first part of the problem. Even if one assumes that news avoiders occasionally encounter news teasers on SNS, this does not mean that they intend to *engage* with it.

Unequal Chances of News Engagement

Prior to discussing the unequal chances of news engagement, it seems necessary to take a closer look at the information environment on SNS. As one of the most common practices of news providers on social media is sharing hyperlinks that refer to full articles on their respective websites, Facebook and Twitter users are usually only confronted with illustrated link previews that neither tell 'the whole story' nor feature a great amount of information. As depicted in Figure 1, encountering news on SNS generally means seeing a short description of the article and an illustrated/annotated link. Thus, the majority of information stays hidden and can only be accessed if a user decides to click on the link and read the full journalistic piece.



Figure 1. News teasers on Facebook and Twitter. Black and white icons created by users rivda (Facebook/Twitter symbol) and sevgenjory (click symbol) from Noun Project.

Although the teasers generally allow gauging the basic premise of an article, many questions remain unanswered: For example, while the article previews in Figure 1 allow inferring that four potential Democratic candidates decided against running for president in 2020,

they are neither disclosing *who* the four candidates are, *why* they declared not to run, nor *what* the wider implications of these decisions are.

Albeit there is preliminary experimental evidence suggesting that SNS article previews can generate at least some awareness and insight (Anspach et al., 2019; Bode, 2016), substantial effects on, for example, users' political knowledge should require more than glancing over posts. Indeed, a recent study by Lee and Kim (2017: 1011) showed that the effects of INE on information recall fully hinge on actually reading/viewing the full journalistic piece: Only users that had spent at least some time on the linked article were able to provide a description of the news event. Thus, it is crucial to examine what factors or circumstances prompt individuals to engage with news content they encounter in their feeds.

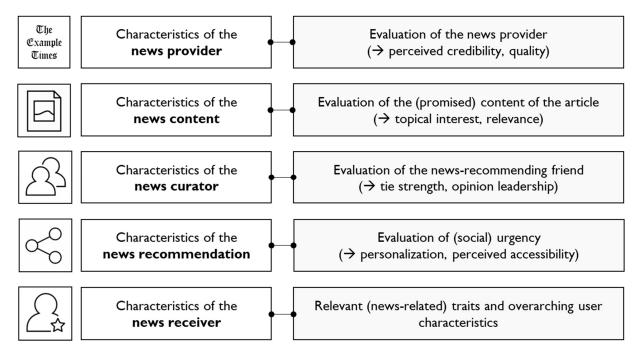


Figure 2. Factors influencing the shift from news exposure to news engagement on SNS. Black and white icons created by user Richard Schumann from Noun Project.

Investigating INE on Facebook, Kümpel (2019b) has identified five factors that might influence the shift from mere exposure to article previews to engagement with the full article

(see Figure 2). These include the perceived 1) characteristics of the *news provider*,

2) characteristic of the *news content*, 3) characteristics of the *news curator* (i.e., the social contact associated with a news post), 4) characteristics of the *news recommendation* (i.e., how or why a news post reached the user), and 5) characteristics of the *news receiver* (i.e., overarching traits and characteristics of the exposed user). In the following, it will be argued that all of these factors particularly favor engagement among those users that Prior (2007) has called "news junkies," thus further extending the inequalities discussed in the context of news exposure.

Focusing first on the perceived characteristics of the news provider, experimental research has frequently shown that brand images (i.e., a set of beliefs held about specific news providers) are an important cue for selecting news content (e.g., Arendt et al., 2017; Medders and Metzger, 2018), suggesting that they could also influence engagement decisions on SNS. In fact, recent studies relying on highly educated samples show that perceptions of valued legacy media outlets are at least indirectly involved in generating attention and shaping engagement decisions (Kaiser et al., 2018; Kümpel, 2019b). However, as news products are "experience goods" (Prior, 2013: 120), brand images should only be a relevant criterion for users that have had their share of experiences with specific news providers. A user that does not care about news is unlikely to select content solely based on the fact that it originates from *The New York Times* or *The Guardian*. Instead, they are more likely to base their decisions on the perceived characteristics of the news content, that is, how relevant or interesting the linked article appears to be.²

For high-choice media environments such as SNS, there is ample evidence that those with a high interest in politics or (specific) current affairs topics are more likely to engage with encountered news articles (e.g., Boehmer and Tandoc Jr., 2015; Kaiser et al., 2018; Karnowski et al., 2017; Kümpel, 2019a, 2019b; Möller et al., 2019; Mummolo, 2016; Wolfsfeld et al., 2016).

Building on a mobile experience sampling study consisting of over 800 news encounters on Facebook, Karnowski and colleagues (2017) consistently identified users' topical interest as the most important predictor of reading intentions (for similar results see also Kaiser et al., 2018; Kümpel, 2019a, 2019b). Likewise, relying on more than a year of tracking data of online browsing sessions, Möller and colleagues (2019: 12) could show "that social media drives news consumption particularly for those with existing political interest," implying that SNS are unlikely to motivate uninterested users to read and interact with news.

Yet, being social media, SNS have given rise to new forms of peer influence, which has led scholars to assume that (news) selection decisions might be less based on content-related considerations and more heavily guided by personal influence, that is, on who has shared, recommended, or otherwise visibly interacted with an article (e.g., Anspach, 2017; Messing and Westwood, 2013; Turcotte et al., 2015). Indeed, data from several studies suggest that news recommendations by friends—especially those that are close to the exposed user and appreciated for being honest and well-informed—positively influence news engagement decisions (e.g., Anspach, 2017; Bergström and Belfrage, 2018; Kaiser et al., 2018; Karnowski et al., 2017; Messing and Westwood, 2013; Turcotte et al., 2015). Furthermore, the influence exerted by individual news curators seems to increase even more with specific types of SNS news recommendations. The more personalized and accessible for others a given news recommendation is (e.g., getting tagged or @-mentioned in a comment to a news post), the more likely engagement with the article is to ensue (Kümpel, 2019a, 2019b). At first glance, personal social influence thus seems to provide a chance to mitigate the strong influence preexisting interests and content preferences have on news engagement decisions. However, although connections on SNS are often based on weak(er) ties, users are more likely to interact with

socially close peers that have similar backgrounds, interests, and values (Aiello et al., 2012; Lönnqvist and Itkonen, 2016). This, once again, raises the question of news exposure, that is, how likely it is for the uninterested to be exposed to socially curated news. To put it simply: Why should a group of friends that is not attentive to news recommend news posts to each other? Corroborating this, Edgerly and colleagues (2018) found that adolescents that can be characterized as news avoiders exhibit the lowest levels of online participation, meaning that they almost never comment on or share content about politics or social issues via SNS or direct messages.

Last, overarching characteristics or traits of the exposed user (i.e., the news receiver) have been identified as being relevant for news engagement decisions. Particularly, individuals' need for cognition (NfC, see Cacioppo and Petty, 1982) or their duty to keep informed (DTKI, see McCombs and Poindexter, 1983) might explain why some users are generally more likely than others to attend to news content (e.g., Tsfati and Cappella, 2005; Tuten and Bosnjak, 2001). Yet, both dispositions are more likely to be developed among 'news junkies' and thus do not seem to contribute to diminishing inequalities in news engagement. For example, a meta-analysis by Cacioppo and colleagues (1996: 239) showed that individuals high in NfC exhibit more active information-seeking behavior, are more likely to use the media for information gathering, and more likely to feel involved in social issues than those low in NfC.

Just like news exposure, news engagement on SNS favors those already interested in news, further adding to the observation "that actively seeking the news continues to be critical for citizens to learn about politics" (Gil de Zúñiga et al., 2017: 118). Unfortunately, engaging with news on SNS seems to be equally rare as news exposure: Analyzing data from over 10 million active Facebook users, Bakshy and colleagues (2015) found that an average user clicked

on only 6.5 % of hard news links available in their feed. Thus, the (positive) potential of INE is not only inherently limited, but also strongly depends on the individual SNS users, their interests, relationships, and actions.

Discussion

This article argued that research on incidental news exposure on social media might have been too optimistic about the potential of 'stumbling' upon news—particularly for those users that are not intrinsically motivated to seek out and engage with current affairs information.

Referencing Merton (1968) and building on the general idea of cumulative advantage as a mechanism for inequality (DiPrete and Eirich, 2006), I have proposed the existence of a Matthew Effect in social media news use that pertains both to the chances of encountering news content on SNS (news exposure) and to the likelihood of actually clicking on and reading linked news articles (news engagement).

By reviewing and discussing studies on SNS news exposure and engagement, it was shown that the very nature of social media triggers a process of relative enrichment among users with preexisting interests in news and politics and relative impoverishment among news avoiders or those with little to no interest in current affairs. In sum, positive effects of INE on learning and participatory behaviors will be particularly likely to occur for SNS users...

- ...that are already interested in news and politics,
- ...that (thus) have friends that care about and share news content,
- ...that (thus) actively create news-friendly information environments on SNS,
- ...that (thus) regularly interact with encountered news content, and
- ...that (thus) reinforce system-driven customization and become an attractive target for news advertisements.

Hence, a combination of users' preferences and dispositions, their conscious news-related decisions, network of friends, and—not least—the algorithmic values embedded in SNS curation practices are likely to widen the gap between the already 'information rich' and the 'information poor.' Several reasons for this increase in inequalities are possible. In addition to an absolute Matthew Effect (i.e., rich get richer, poor get poorer), SNS might also promote a relative Matthew Effect (i.e., rich get richer, poor also get richer—but slower or less so), or even a situation in which both segments are losing (i.e., rich get poorer, poor also get poorer—but faster or more so). Depending on the user's baseline values of news consumption, the dependent variable of interest (e.g., basic awareness vs. in-depth knowledge), and whether one focuses on news exposure or engagement, all three scenarios could apply.³

The Matthew Effect also urges us to reconsider the notion of *incidental* news exposure itself. While some definitions of INE highlight the non-intentionality of seeking news specifically (e.g., "encounter current affairs information when they had not been actively seeking it", Tewksbury et al., 2001: 534; "acquire news while they are not consciously looking for it", Ahmadi and Wohn, 2018: 2), others focus more strongly on the idea of it being a secondary activity (e.g., "something which accompanies a major activity, often as a by-product of pursuing the latter", Boczkowski et al., 2018: 3524). Focusing on the first notion and considering the unequal chances of news exposure on SNS, however, one has to ask whether it would be more appropriate to differentiate between various *degrees* of 'incidental' exposure. Thinking back to the prototypical users described above, Emily and Tom, the current definitions would allow classifying both of them as incidentally exposed users. Yet, this blurs the line between (more) planned and (more) unplanned variations of INE. As individuals engaging in user-driven customization proactively shape their news feeds to encourage 'stumbling' upon news stories, it

would be wrong to characterize their exposure as non-intentional. For example, although a user that has liked the page of *The New York Times* (NYT) might not log in to Facebook with the specific goal of reading NYT news posts, they have actively sought out the opportunity of exposure. Acknowledging different degrees of INE would not only help to highlight existing inequalities in SNS news exposure, but also to refine (quantitative) measurements of 'incidental' exposure. Instead of just asking study participants how often they come across news when they "may have been going online for a purpose other than to get the news" (Valeriani and Vaccari, 2016: 1865; similarly: Oeldorf-Hirsch, 2018: 232; Kim et al., 2013: 2610), researchers could also ask about how many news pages the participants like/follow, whether they use specific customization tools, or how frequently their friends share news content. This would allow to get a better sense of the likelihood of news exposure and to classify SNS users accordingly. Especially for studies focusing on the effects of INE, such a distinction might prove useful to determine the conditions under which learning or political participation is (not) to be expected.

Considering the potential positive effects of SNS news use on knowledge or participatory outcomes, it is important to recognize that even in an ideal world of entirely equal chances of news exposure and engagement, these effects are likely to be confined to very specific domains. Even 'news junkies' probably do not get a comprehensive overview about the most important topics of the day in their social media feeds—particularly one that might be comparable to journalistically curated editorial products. In fact, the unbundling of news on SNS, that is, the detachment of single pieces of news content from both specific news providers and integrated, consciously put together journalistic products (e.g., TV news programs, front pages), might prevent users from getting a broad view of current issues and events. In addition, there is the danger of SNS users equating being exposed to news (teasers) with actually being informed. At

least for some users, such feelings of being informed can lead to overconfidence in one's knowledge and to regarding SNS as a good substitute for other news sources (Anspach et al., 2019; Müller et al., 2016). Regularly encountering news (teasers) might thus ultimately lead to detrimental effects such as diminished consumption of non-personalized, professionally composed news products. Moreover, considering the segment of 'news junkies,' constantly seeing news in one's feed could also lead to perceptions of news overload and, ultimately, to news avoidance or an inability to gauge what is actually important (Song et al., 2017).

On a more practical note, the described inequalities in social media news use suggest that journalistic news providers mostly reach users that are already part of their core audience, while those hoping to gain access to "elusive audiences" (Hermida, 2016) are likely to be disappointed. Given that news providers rely on SNS to bring traffic to their websites and heavily invest in social media strategies (Cornia et al., 2018), the question is whether this pays off. Both from an economic point of view and from a societal perspective, it becomes increasingly important to figure out ways to turn users who are uninterested in the news into interested ones. Focusing on young adults, Edgerly (2017) discusses three ways to achieve this: (1) Positive (informal) influence of parents and friends, (2) positive (formal) influence of teaching curricula, and (3) efforts on part of the news media to become more knowledgeable about the preferences of young people and other 'elusive audiences.' Especially this last aspect seems to be crucial. A study by Lee and Chyi (2014) shows that US Internet users perceive only about one-third (36 %) of the content produced by mainstream news media as "noteworthy," that is, as relevant or interesting to them. Likewise, qualitative data suggests that young people in particular often see the news as boring or too complicated to understand (e.g., Van Cauwenberge et al., 2013). Experimenting with new forms of presenting news might be one way to overcome this problem. While there is

evidence that news organizations are increasingly considering the characteristics of SNS when creating and distributing content on social media (e.g., through using native formats like videos or 'meme-like' pictures, see Cornia et al., 2018), there likely is room for improvement in that regard. Low-key encounters with political memes or (closed captioned) news videos might help the less-interested to become acquainted with certain topics or issue and motivate them to look for more information. Sparking at least some curiosity could be an important first step to foster a wider interest in the news.

In addition to providing a comprehensive overview of scholarly research on (the inequalities in) social media news use, another goal of this article is to stimulate investigations that address the issues raised. Not only should researchers be more explicit about their definitions of 'incidental' news exposure and improve measurements of the construct, but they should also think about ways to study deliberate news avoidance, unintended exclusion from news in algorithmically curated information environments, or how the pivotal factor 'interest' might be fostered.

References

- Ahmadi M and Wohn DY (2018) The antecedents of incidental news exposure on social media. *Social Media + Society* 4(2): 1–8. DOI: 10.1177/2056305118772827.
- Aiello LM, Barrat A, Schifanella R, et al. (2012) Friendship prediction and homophily in social media. *ACM Transactions on the Web* 6(2): 9:1–9:33. DOI: 10.1145/2180861.2180866.
- Andreou A, Venkatadri G, Goga O, et al. (2018) Investigating ad transparency mechanisms in social media: A case study of Facebook's explanations. In: *Proceedings 2018 Network and Distributed System Security Symposium*, San Diego, CA, 2018. DOI: 10.14722/ndss.2018.23191.
- Anspach NM (2017) The new personal influence: How our Facebook friends influence the news we read. *Political Communication* 37(4): 590–606. DOI: 10.1080/10584609.2017.1316329.
- Anspach NM, Jennings JT and Arceneaux K (2019) A little bit of knowledge: Facebook's News Feed and self-perceptions of knowledge. *Research & Politics* 6(1): 1–9. DOI: 10.1177/2053168018816189.
- Arendt F, Northup T and Camaj L (2017) Selective exposure and news media brands: Implicit and explicit attitudes as predictors of news choice. *Media Psychology*. DOI: 10.1080/15213269.2017.1338963.
- Bakshy E, Messing S and Adamic LA (2015) Exposure to ideologically diverse news and opinion on Facebook. *Science* 348(6239): 1130–1132. DOI: 10.1126/science.aaa1160.
- Beam MA, Hmielowski JD and Hutchens MJ (2018) Democratic digital inequalities: Threat and opportunity in online citizenship from motivation and ability. *American Behavioral Scientist* 62(8): 1079–1096. DOI: 10.1177/0002764218764253.
- Bergström A and Belfrage MJ (2018) News in social media. Incidental consumption and the role of opinion leaders. *Digital Journalism* 6(5): 583–598. DOI: 10.1080/21670811.2018.1423625.
- Boczkowski PJ, Mitchelstein E and Matassi M (2018) "News comes across when I'm in a moment of leisure": Understanding the practices of incidental news consumption on social media. *New Media & Society* 20(10): 3523–3539. DOI: 10.1177/1461444817750396.
- Bode L (2016) Political news in the news feed: Learning politics from social media. *Mass Communication and Society* 19(1): 24–48. DOI: 10.1080/15205436.2015.1045149.
- Boehmer J and Tandoc Jr. EC (2015) Why we retweet: Factors influencing intentions to share sport news on Twitter. *International Journal of Sport Communication* 8(2): 212–232. DOI: 10.1123/ijsc.2015-0011.

- Bozdag E (2013) Bias in algorithmic filtering and personalization. *Ethics and Information Technology* 15(3): 209–227. DOI: 10.1007/s10676-013-9321-6.
- Cacciatore MA, Yeo SK, Scheufele DA, et al. (2018) Is Facebook making us dumber? Exploring social media use as a predictor of political knowledge. *Journalism & Mass Communication Quarterly* 95(2): 404–424. DOI: 10.1177/1077699018770447.
- Cacioppo JT and Petty RE (1982) The need for cognition. *Journal of Personality and Social Psychology* 42(1): 116–131. DOI: 10.1037/0022-3514.42.1.116.
- Cacioppo JT, Petty RE, Feinstein JA, et al. (1996) Dispositional differences in cognitive motivation: The life and times of individuals varying in need for cognition. *Psychological Bulletin* 119(2): 197–253. DOI: 10.1037/0033-2909.119.2.197.
- Cornia A, Sehl A, Levy DAL, et al. (2018) *Private sector news, social media distribution, and algorithm change*. Oxford, UK: Reuters Institute for the Study of Journalism.
- David CC, Pascual MRSS and Torres MES (2019) Reliance on Facebook for news and its influence on political engagement. *PLOS ONE* 14(3): e0212263. DOI: 10.1371/journal.pone.0212263.
- DeVito MA (2017) From editors to algorithms. A values-based approach to understanding story selection in the Facebook news feed. *Digital Journalism* 5(6): 753–773. DOI: 10.1080/21670811.2016.1178592.
- DiPrete TA and Eirich GM (2006) Cumulative advantage as a mechanism for inequality: A review of theoretical and empirical developments. *Annual Review of Sociology* 32(1): 271–297. DOI: 10.1146/annurev.soc.32.061604.123127.
- Dylko IB (2016) How technology encourages political selective exposure: Customizability technology and political selective exposure. *Communication Theory* 26(4): 389–409. DOI: 10.1111/comt.12089.
- 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 and Vraga EK (2019) News, entertainment, or both? Exploring audience perceptions of media genre in a hybrid media environment. *Journalism* 20(6): 807–826. DOI: 10.1177/1464884917730709.
- Edgerly S, Vraga EK, Bode L, et al. (2018) New media, new relationship to participation? A closer look at youth news repertoires and political participation. *Journalism & Mass Communication Quarterly* 95(1): 192–212. DOI: 10.1177/1077699017706928.
- Facebook Media (n.d.) News Feed. Available at: https://www.facebook.com/facebookmedia/solutions/news-feed (accessed 4 March 2019).

- Fletcher R and Nielsen RK (2018) Are people incidentally exposed to news on social media? A comparative analysis. *New Media & Society* 20(7): 2450–2468. DOI: 10.1177/1461444817724170.
- Gil de Zúñiga H, Weeks B and Ardèvol-Abreu A (2017) Effects of the news-finds-me perception in communication: Social media use implications for news seeking and learning about politics. *Journal of Computer-Mediated Communication* 22(3): 105–123. DOI: 10.1111/jcc4.12185.
- Hargittai E (2003) The digital divide and what to do about it. In: Jones DC (ed.) *New Economy Handbook*. San Diego, CA, USA: Academic Press, pp. 822–841.
- Hargittai E and Hsieh YP (2013) Digital inequality. In: *The Oxford Handbook for Internet Studies*. Oxford, UK: Oxford University Press, pp. 129–150.
- Henrich J, Heine SJ and Norenzayan A (2010) Beyond WEIRD: Towards a broad-based behavioral science. *Behavioral and Brain Sciences* 33(2–3): 111–135. DOI: 10.1017/S0140525X10000725.
- Hermida A (2016) Social media and the news. In: *The SAGE Handbook of Digital Journalism*. London: SAGE, pp. 81–94. DOI: 10.4135/9781473957909.n6.
- Hmielowski JD, Holbert RL and Lee J (2011) Predicting the consumption of political TV satire: Affinity for political humor, The Daily Show, and The Colbert Report. *Communication Monographs* 78(1): 96–114. DOI: 10.1080/03637751.2010.542579.
- Kaiser J, Keller TR and Kleinen-von Königslöw K (2018) Incidental news exposure on Facebook as a social experience: The influence of recommender and media cues on news selection. *Communication Research*. DOI: 10.1177/0093650218803529.
- Karnowski V, Kümpel AS, Leonhard L, et al. (2017) From incidental news exposure to news engagement. How perceptions of the news post and news usage patterns influence engagement with news articles encountered on Facebook. *Computers in Human Behavior* 76: 42–50. DOI: 10.1016/j.chb.2017.06.041.
- Kim Y, Chen H-T and Gil de Zúñiga H (2013) Stumbling upon news on the internet: Effects of incidental news exposure and relative entertainment use on political engagement. *Computers in Human Behavior* 29: 2607–2614. DOI: 10.1016/j.chb.2013.06.005.
- Kitchin R (2017) Thinking critically about and researching algorithms. *Information*, *Communication & Society* 20(1): 14–29. DOI: 10.1080/1369118X.2016.1154087.
- Kümpel AS (2019a) Getting tagged, getting involved with news? A mixed-methods investigation of the effects and motives of news-related tagging activities on social network sites. *Journal of Communication* 69(4): 373–395. DOI: 10.1093/joc/jqz019.
- Kümpel AS (2019b) The issue takes it all? Incidental news exposure and news engagement on Facebook. *Digital Journalism* 7(2): 165–186. DOI: 10.1080/21670811.2018.1465831.

- Lee AM and Chyi HI (2014) When newsworthy is not noteworthy. Examining the value of news from the audience's perspective. *Journalism Studies* 15(6): 807–820. DOI: 10.1080/1461670X.2013.841369.
- Lee JK and Kim E (2017) Incidental exposure to news: Predictors in the social media setting and effects on information gain online. *Computers in Human Behavior* 75: 1008–1015. DOI: 10.1016/j.chb.2017.02.018.
- Lönnqvist J-E and Itkonen JVA (2016) Homogeneity of personal values and personality traits in Facebook social networks. *Journal of Research in Personality* 60: 24–35. DOI: 10.1016/j.jrp.2015.11.001.
- McCombs M and Poindexter P (1983) The duty to keep informed: News exposure and civic obligation. *Journal of Communication* 33(2): 88–96. DOI: 10.1111/j.1460-2466.1983.tb02391.x.
- Medders RB and Metzger MJ (2018) The role of news brands and leads in exposure to political information on the Internet. *Digital Journalism* 6(5): 599–618. DOI: 10.1080/21670811.2017.1320770.
- Merton RK (1968) The Matthew effect in science. Science 159(3810): 56-63.
- Messing S and Westwood SJ (2013) Friends that matter: How social influence affects selection in social media. Unpublished Manuscript. Stanford, CA, USA.
- Mingo I and Bracciale R (2018) The Matthew Effect in the Italian digital context: The progressive marginalisation of the "poor". *Social Indicators Research* 135(2): 629–659. DOI: 10.1007/s11205-016-1511-2.
- Möller J, van de Velde RN, Merten L, et al. (2019) Explaining online news engagement based on browsing behavior: Creatures of habit? *Social Science Computer Review*. DOI: 10.1177/0894439319828012.
- Müller P, Schneiders P and Schäfer S (2016) Appetizer or main dish? Explaining the use of Facebook news posts as a substitute for other news sources. *Computers in Human Behavior* 65: 431–441. DOI: 10.1016/j.chb.2016.09.003.
- Mummolo J (2016) News from the other side: How topic relevance limits the prevalence of partisan selective exposure. *The Journal of Politics* 78(3): 763–773. DOI: 10.1086/685584.
- Newman N, Fletcher R, Kalogeropoulos A, et al. (2018) *Reuters Institute Digital News Report* 2018. Oxford, UK: Reuters Institute for the Study of Journalism.
- Norris P (2001) Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide. New York, NY, USA: Cambridge University Press.

- Oeldorf-Hirsch A (2018) The role of engagement in learning from active and incidental news exposure on social media. *Mass Communication and Society* 21(2): 225–247. DOI: 10.1080/15205436.2017.1384022.
- Powers E (2017) My news feed is filtered? Awareness of news personalization among college students. *Digital Journalism* 5(10): 1315–1335. DOI: 10.1080/21670811.2017.1286943.
- Prior M (2007) Post-Broadcast Democracy: How Media Choice Increases Inequality in Political Involvement and Polarizes Elections. New York: Cambridge University Press.
- Prior M (2013) Media and political polarization. *Annual Review of Political Science* 16(1): 101–127. DOI: 10.1146/annurev-polisci-100711-135242.
- Rigney D (2010) *The Matthew Effect: How Advantage Begets Further Advantage*. New York, NY, USA: Columbia University Press. Available at: https://www.jstor.org/stable/10.7312/rign14948 (accessed 12 February 2019).
- Schmidt J-H, Merten L, Hasebrink U, et al. (2019) How do intermediaries shape news-related media repertoires and practices? Findings from a qualitative study. *International Journal of Communication* 13(853–873): 21.
- 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.
- Song H, Jung J and Kim Y (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, Djerf-Pierre M and Shehata A (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.
- Tewksbury D, Weaver AJ and Maddex BD (2001) Accidentally informed: Incidental news exposure on the world wide web. *Journalism & Mass Communication Quarterly* 78(3): 533–554. DOI: 10.1177/107769900107800309.
- Thorson K (2018) How social inequalities shape incidental exposure to news and politics among young adults. Presented at the 68th Annual Conference of the ICA, Prague, Czech Republic.
- Thorson K (2019) Time to get mad about information inequality (again). In: *Nieman Lab*. Available at: http://www.niemanlab.org/2019/01/time-to-get-mad-about-information-inequality-again/ (accessed 27 February 2019).
- Thorson K and Wells C (2016) Curated flows: A framework for mapping media exposure in the digital age. *Communication Theory* 26(3): 309–328. DOI: 10.1111/comt.12087.

- Thorson K, Xu Y and Edgerly S (2018) Political inequalities start at home: Parents, children, and the socialization of civic infrastructure online. *Political Communication* 35(2): 178–195. DOI: 10.1080/10584609.2017.1333550.
- Tichenor PJ, Donohue GA and Olien CN (1970) Mass media flow and differential growth in knowledge. *Public Opinion Quarterly* 34(2): 159–170. DOI: 10.1086/267786.
- Tsfati Y and Cappella JN (2005) Why do people watch news they do not trust? The need for cognition as a moderator in the association between news media skepticism and exposure. *Media Psychology* 7(3): 251–271. DOI: 10.1207/S1532785XMEP0703 2.
- Turcotte J, York C, Irving J, et al. (2015) News recommendations from social media opinion leaders: Effects on media trust and information seeking. *Journal of Computer-Mediated Communication* 20(5): 520–535. DOI: 10.1111/jcc4.12127.
- Tuten TL and Bosnjak M (2001) Understanding differences in web usage: The role of need for cognition and the five factor model of personality. *Social Behavior and Personality: an international journal* 29(4): 391–398. DOI: 10.2224/sbp.2001.29.4.391.
- Valeriani A and Vaccari C (2016) Accidental exposure to politics on social media as online participation equalizer in Germany, Italy, and the United Kingdom. *New Media & Society* 18(9): 1857–1874. DOI: 10.1177/1461444815616223.
- Van Cauwenberge A, d'Haenens L and Beentjes H (2013) Young people's news orientations and uses of traditional and new media for news. *Communications* 38(4): 367–388. DOI: 10.1515/commun-2013-0022.
- van Deursen AJAM and Helsper EJ (2015) The third-level digital divide: Who benefits most from being online? In: Robinson L, Cotten SR, Schulz J, et al. (eds) *Studies in Media and Communications*. Emerald Group Publishing Limited, pp. 29–52. DOI: 10.1108/S2050-206020150000010002.
- van Deursen AJAM and van Dijk JA (2014) The digital divide shifts to differences in usage. *New Media & Society* 16(3): 507–526. DOI: 10.1177/1461444813487959.
- Weeks BE, Lane DS, Potts L, et al. (2019) Can incidental exposure to news online close the political knowledge gap? Evidence from two panel studies in two U.S. elections. Presented at the 69th Annual Conference of the ICA, Washington, DC, USA.
- Wei K-K, Teo H-H, Chan HC, et al. (2011) Conceptualizing and testing a social cognitive model of the digital divide. *Information Systems Research* 22(1): 170–187. DOI: 10.1287/isre.1090.0273.
- Wolfsfeld G, Yarchi M and Samuel-Azran T (2016) Political information repertoires and political participation. *New Media & Society* 18(9): 2096–2115. DOI: 10.1177/1461444815580413.

- Woodstock L (2014) The news-democracy narrative and the unexpected benefits of limited news consumption: The case of news resisters. *Journalism: Theory, Practice & Criticism* 15(7): 834–849. DOI: 10.1177/1464884913504260.
- Young DG and Tisinger RM (2006) Dispelling late-night myths: News consumption among late-night comedy viewers and the predictors of exposure to various late-night shows. *Harvard International Journal of Press/Politics* 11(3): 113–134. DOI: 10.1177/1081180X05286042.
- Zuckerberg M (2018a) Continuing our focus for 2018 to make sure the time we all spend on Facebook is time well spent... In: *Facebook*. Facebook status update. Available at: https://www.facebook.com/zuck/posts/10104445245963251.
- Zuckerberg M (2018b) One of our big focus areas for 2018 is making sure the time we all spend on Facebook is time well spent. In: *Facebook*. Facebook status update. Available at: https://www.facebook.com/zuck/posts/10104413015393571.

Footnotes

¹This, of course, does not mean that research has disregarded negative effects or did not acknowledge mixed findings in the domain of social media news use. In fact, researchers have repeatedly asked questions along the lines of: "Is Facebook making us dumber?" (Cacciatore et al., 2018). However, even in these studies, the specific idea of *incidental* news exposure is usually connected with the assumption of positive (or, at least, non-negative) effects (ibid: 407).

²One might argue that the perceived characteristics of the news provider could also play a role for engagement decisions among users who are not explicitly looking for news. For example, if a user is in search of entertainment, they might be drawn to posts by *The Daily Show* or *The Onion* and accidentally learn about current political issues while engaging with their content. However, even though these "hybrid news-entertainment media" (Edgerly and Vraga, 2019) might have some potential to motivate the uninterested, we know that political comedy audiences are usually interested in regular news programs as well (e.g., Hmielowski et al., 2011; Young and Tisinger, 2006).

³As mentioned in the introduction, some of the recent empirical studies on INE suggest that 'incidentally' encountering news might in fact *narrow* the gap between the information rich and poor due to the poor getting richer at a faster rate or profiting more (e.g., Valeriani and Vaccari, 2016; Weeks et al., 2019). However, as I will argue below, this might at least partially be caused by the used INE measurements that are unable to gauge the unequal chances of news exposure.