Perusing pages and skimming screens: Exploring differing patterns of selective exposure to hard news and high credibility sources in online and print news

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Abstract

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Perusing Pages and Skimming Screens: Exploring Differing Patterns of Selective Exposure to Hard News and Professional Sources in Online and Print News

The news landscape and news audiences have gone through landslide changes in recent decades. On the one hand, a growing competition for news audiences (e.g. Bennett, 2012), has resulted in a trend toward more entertaining 'soft news' (Patterson, 2000). On the other hand, the resource and financial barriers that limited who could publish news in the pre-internet era have disappeared (Metzger, 2007), allowing the proliferation of news sites created by un-trained and less credible sources. As the number of unknown or little known sources online continues to rise (Jurkowitz, 2014), the likelihood of news audiences viewing unfamiliar and potentially low credibility news sites increases. Such concerns around the use of unknown and non-credible news sources have garnered particular attention with concerns over 'fake news' websites in the wake of the 2016 presidential election (Holan, 2016), especially given that fake news websites gained more engagement with readers than traditional news prior to the election (Silverman, 2016).

The question arises, to what extent are the internet era concerns over news consumption specific to the medium on which people get their news. The distinctions between online and offline news have seen increasing attention and commentary by both scholars (for a review see Mitchelstein & Boczkowski, 2009) and journalists (e.g. Hardy, 2016; Simon, 2011; The Economist, 2009).

However, the importance of the delivery format on exposure to public affairs news versus 'soft news' as well as to information from high-quality sources rather than non-professional sources has rarely been examined rigorously. In the present work, a novel experimental technique is applied to investigate selective exposure to news in two areas where online and offline (in our case print) news have been noted to differ: in the consumption of soft versus hard news, and people's use of amateur/low-credibility versus professional/high credibility sources.

Online vs Offline

Since the internet emerged as a major force in news consumption, scholars have raised concerns over differences in how online news may be consumed in comparison to traditional news formats (for a review see Kopper, Kolthoff, & Czepek, 2000; Mitchelstein & Boczkowski, 2009). However, despite widespread concerns, empirical research comparing the internet with other mediums has been rarer, although there are a number of examples (Althaus & Tewksbury, 2002; Stroud, 2008; Yang & Grabe, 2011)

Most concerns boil down to issues of selectivity. First, online news can increase selectivity by breaking down the traditional linear formats of print (Althaus & Tewksbury, 2002). While print news encourages users to consume stories in an ordered fashion, online news usually presents users with a broad selection of headlines from which a single article can be selected. Second, selectivity becomes more important to consider as the range of options for news increases online (Bennett, 2012).

Hence, taking into account selective exposure becomes important when assessing differences between online and offline news. While traditionally a large amount of selective exposure research in communication focused on confirmation bias (Donsbach, 2009), other factors are known to shape citizens' selection of information (e.g. Atkin, 1973). Hence, selective exposure can be viewed as 'any systematic bias in audience composition for a given media or message, as well as any systematic bias in selected messages' (Knobloch-Westerwick, 2015, p. 3).

One way of viewing the processes by which individuals select messages is *information foraging theory*, which seeks to 'explain and predict how people will best shape themselves for their information environments and how environments can best be shaped for people' (Pirolli,

2007, p. 3). Humans are natural 'informavores: organisms hungry for information about the world and themselves' (Pirolli, 2003, p. 157). However, information consumption comes with a simultaneous cost in the form of attention, and users are limited in the level of cognitive resources they can spare (Pirolli & Card, 1999); hence, the potential for information overload increases (Eppler & Mengis, 2004).

Therefore, questions turn to how people navigate the online environment. Users are guided by an 'information scent' (Pirolli, 2003, 2007) that allows users to identify the potential cost and benefits of distal information based on the contextual clues of more immediately available information (Sundar, Knobloch□Westerwick, & Hastall, 2007). Humans use this information scent to optimize the quality of information they will receive in return for the cost of the attention paid (Pirolli, 2005). However, the level of attention needed to consistently receive quality information online are relatively high given the volumes of content to consume (Metzger, Flanagin, & Medders, 2010). Hence, employing highly rational strategies for information searching online are rarely used (Gigerenzer & Todd, 1999). Such information overload is likely to affect people's efforts to examine the credibility of information, as well as their desire for cognitively challenging hard news information.

Recent work on way-finding sought to supply a framework to view modern news consumption (Pearson & Kosicki, 2016). It argues that in former times news sources were destinations, whereas in the modern news environment consumers use aggregators and social media to consume individual stories from multiple news sources (Choi & Kim, 2016).
One key assumption of the way-finding framework is that news consumption is increasingly passive (Pearson & Kosicki, 2016), consumed via clicking links from social media or aggregators rather than going direct to new sites (Kohut, Doherty, Dimock, & Keeter, 2012). As

of such, news producers must seek to curate and promote stories that capture the attention of news readers (Choi & Kim, 2016). However, the concern is that news producers increasingly seek to grab attention with soft news (Guadagno, Rempala, Murphy, & Okdie, 2013; Tandoc, 2014). Secondly, this style of news consumption could lead users to pay less attention to credibility cues, as they rely on social media and aggregators' suggestions instead.

However, while such concerns exist, they have not been empirically tested. In the following, we review the existing literature in these two areas before drawing hypotheses to test the effect of modern online news consumption on selection of hard vs soft news and high vs low credibility sources.

Hard vs Soft News

Scholarship on soft news pre-dates the internet, with analyses of news throughout the twentieth century found plenty of evidence for soft news (Schönbach, 2000; Turow, 1983). Despite the history of scholarship, soft news is a vaguely defined term, with many scholars using contradictory definitions (Reinemann, Stanyer, Scherr, & Legnante, 2011). While other definitions are used, for instance on infotainment and presentation of news in a humorous and entertaining fashion, the majority of soft news research focuses on topic (Reinemann et al., 2011). However, it is worth noting that this does not necessarily refer to the broad topic of the news item. For instance, many topics can easily become either hard or soft news, such as crime (Curran, Salovaara-Moring, Coen, & Iyengar, 2010). With this in mind, Reinemann et al. (2011), define the topic dimension as being measured by political relevance of the piece, such that hard news deals with the 'norms, goals, interests, and activities related to the preparation, assertion, and implementation of authoritative, generally binding decisions about societal conflict' (p. 13).

The debate as to whether soft news is harmful for an engaged citizenry continues. While there are defenders of soft news (Baum, 2002; Zaller, 2003), others are much more concerned by the effects of soft news, arguing that it increases gaps in political knowledge (e.g. Gans, 2003; Prior, 2005) and fosters political cynicism (e.g., Boukes & Boomgaarden, 2015)

The question then arises as to whether the online news environment makes selection of soft news more likely. Research indicates that individuals are more likely to select soft news over hard news (Kohut et al., 2012; Zillmann, Knobloch, & Yu, 2001), with soft news generally offering more emotional appeal than hard news. Furthermore, evidence suggests online readers consume more soft news than print readers (Tewksbury & Althaus, 2000). The explanation for this is that print publications are traditionally linear, placing stories sequentially, which increases the chances a reader will consume hard news stories as they browse through the printed publication (Althaus & Tewksbury, 2002). Online news meanwhile places news on a parallel structure which invites readers to drill down to particular areas of interest (d'Haenens, Jankowski, & Heuvelman, 2004). Essentially, online news appears to facilitate the task of foraging for more emotionally appealing soft news while bypassing hard news.

H1: News users spend more time (selective exposure) on soft news than on hard news.

H2: The effect in H1 will be more pronounced in an online context.

Furthermore, scholars argued that the increased amount of news online gives wider media choice to individuals, encouraging selective exposure to soft news. Prior research yielded that people select hard news content when they are unable to find something more to their liking (Prior, 2007), but as selectivity increases, it becomes easier to avoid news content (Trilling & Schoenbach, 2013). Hence, 'online news selection is guided more purely by readers' interests than is the case with the traditional media' (Tewksbury, 2003, p. 696). As online news is mostly

free to access and people can consume news from multiple outlets via aggregators (such as apps, search engines, or social media), the current climate means consumers no longer need 'invest' in one news outlet over another. Instead news users can flit between individual stories from a number of different outlets (Pearson & Kosicki, 2016).

This evidence implies that the processes and approaches news consumers use to forage for news online may be fundamentally different to those of print consumed. Indeed, research has seen that those who habitually use online news can show differing patterns of news consumption (Knobloch-Westerwick & Kleinman, 2012; Reuters, 2016). Therefore we hypothesize that news user habits affect the pattern suggested in the first hypothesis:

H3: The selective exposure pattern suggested in H1 is more pronounced among users who have a preference for online rather than print outlets.

High vs Low Credibility Sources

Online news has altered the availability and range of news sources. Much of these changes are caused by structural differences related to online news. Whereas previously news could only be created by those with the authority and resources to set up a news product, such barriers to do not stop publishing online (Metzger, 2007). Hence, numerous citizen journalists create websites with no formal journalism training (Allen, 2006); in other words 'any news consumer can now be a news producer' (Gunter, Campbell, Touri, & Gibson, 2009, p. 185). Additionally, social pressures and journalistic norms that traditionally ensure accuracy in reporting do not exist for citizen journalists online (Johnson & Kaye, 2000). In summation, the rise of online news meant 'shifting the burden of credibility assessment and quality control from professional gatekeepers to individual information seekers' (Metzger, 2007, p. 2079).

While the majority of news is still consumed from legacy news sources, patterns are beginning to change online, with increased news consumption from social media (Pew Research

Center, 2015) and search engines (Kohut et al., 2012). These services, for the most part, do not produce their own news content, instead relying on aggregated news from other news sources. However, these aggregators do not always select well-known reliable news sources for readers; especially since the use of computer algorithms that focus on the number of shares and views an article get may increase the likelihood of lower credibility news sources being promoted (Mustafaraj & Metaxas, 2010; Silverman, 2016; Yee, 2016).

These processes increase the likelihood that a news user will be directed to lesser known sites and have little familiarity with the site when they arrive on it, especially since the vast majority of online news sites are not well-known (Jurkowitz, 2014). However, in line with information foraging theory, news users must discover new information patches, and therefore must adopt an optimal strategy to best utilize information while minimizing interaction cost (Pirolli, 2007). Thus, it becomes increasingly important to not simply study attitudes towards well known news sources but also understand how people approach assessing the credibility of news on websites that they have not encountered before. Such advice on making credibility assessments became commonplace in the wake of the 2016 U.S. presidential election (e.g. Hautala, 2016; Kiely & Robertson, 2016).

Scholarly attention into credibility assessments of news have generally fallen into two categories: the first of these is content factors, such as the apparent bias, accuracy, trustworthiness of the writing (Gaziano & McGrath, 1986). This first set of factors can be assessed by readers as they process the text. Such attempts though are likely hampered by the sheer volume of content online, which makes reading every news page to assess credibility via content unfeasible. Therefore, heuristic, rather than systematic, processing of credibility

assessments can be expected online as users try to overcome the information overload (Metzger, Flanagin, & Medders, 2010).

This heuristic processing of credibility assessments is done via looking for contextual credibility indicators, such as the design of the website, the domain name suffix, or the authority of the source's reputation (Metzger & Flanagin, 2015). One such cue people may be drawn towards is the apparent credibility and authority of a news article's author. In a focus group conducted by Metzger et al. (2010), the use of source authority, in their study characterized as the existing reputation of the source, was one of the most prevalently used heuristics by web users. Such heuristics are also communicated easily and can be invoked simply by using an expert source in the message (Sundar, 2008). Prior research has also shown that professional sources are trusted more than untrained, amateur sources (e.g. Hu & Sundar, 2009). It could therefore be expected that stories that have a higher credibility cue (e.g. suggesting professional trained journalists) would be selected over sites that were written by a low credibility source (e.g. written by an amateur source). Indeed, for online health news, it has been found that messages from high-credibility sources garner longer selective exposure (Knobloch□Westerwick, Johnson, & Westerwick, 2013). Hence, we will examine the following hypothesis:

H4: News users spend more time (selective exposure) on news from high-credibility professional sources than from low-credibility amateur sources.

However, there is some mixed research on source credibility online. For instance, some argue that the structure and nature of the web put all sources on the same level of accessibility, leveling traditional credibility distinctions (Burbules, 1998). It also seems that online news users may be less likely to check the authorship of the information they read, as Metzger (2007) finds that verifying an author's qualifications was the least used credibility strategy. Online, readers

are faced with an inexhaustible amount of free and easily accessed information. Consequently, to avoid information overload, they will likely reduce efforts to determine the credibility of each piece of information. Meanwhile in print, accessing information usually entails both a greater monetary and cognitive cost, and therefore news users will likely be used to spending greater efforts assessing information quality. Hence it seems likely that individuals would consume more credible sources in the offline condition.

H5: The impact proposed in H4 is more pronounced in the offline condition than the online condition.

Finally, it can be argued that while online news use itself may not affect selection of high or low credibility sources, the behavioral changes in how people consume news online may alter credibility assessments. Consuming news via social media and aggregators has become increasingly common, (Gottfried & Shearer, 2016; Kohut et al., 2012). Social media allows news users to flit between differing sites, consuming stories based upon interest from many different sources; while more traditional news use involved choosing between well-established gatekeepers (Pearson & Kosicki, 2016). This process creates two sources of the information consumed: the social media site that displays from the aggregated news content (the proximate source), and the site the user is linked to once they select an article (the distal source). Some evidence suggests that news users are influenced more by credibility in the proximate source, even though it is the distal source that authored the information (Kalogeropoulos & Newman, 2017; Kang, Bae, Zhang, & Sundar, 2011; Media Insights Project, 2017). The concern is that repeated use of social media may render individuals less aware of and less willing to make credibility assessments, instead trusting the their social media feeds to provide them with the correct information. This strategy is plausible from an information foraging perspective. A news

story being popular on social media, or being shared by a known contact, offers an indicator that the information is worthwhile. However, while this satisficing approach may help avoid information overload (Metzger & Flanagin, 2012), aggregators that focus on popularity are liable to present individuals with information that is misleading or inaccurate (Mustafaraj & Metaxas, 2010).

Furthermore, as noted previously, prior research has demonstrated that online news consumption depends on habitual news use (Knobloch-Westerwick & Kleinman, 2012). As digital news audiences develop schemas to help them navigate the differing structures of online news, such as the accessing sites through aggregators that downplay source cues (Thorson, Vraga, & Ekdale, 2010), it could be that habitual online news users learn to treat source cues differently than offline users, as new passive forms of news consumption condition people to pay less attention to the source of the news (Pearson & Kosicki, 2016).

H6: That the impact seen in H4 will be more pronounced for offline than online news users.

Method

Overview

A 2 x 2 x 2 selective exposure experiment was conducted, with *print versus online* context (delivery format), *hard versus soft news* (news type), and *high versus low credibility* source cues (source credibility) as three within-subjects factors. Participants were presented with two selective exposure tasks, one involving a printed news magazine (print context) and one involving an online news site (online context). The magazines, print and online, were specifically designed and printed or programmed for the purpose of this study. For both contexts, the name ('The Compilation') and logo of the experimental magazine were the same. Both tasks lasted six

minutes, although participants were not made aware of time limits. The time spent reading each article selected by the participants was recorded by software in the online condition and using discretely placed cameras in the print condition. Each version of the task involved 16 articles attributed to eight different sources (so that each source provided two articles – one hard news and one soft news – in each version). This setup resulted in using 32 articles and 16 different sources across both contexts. Between the two conditions, participants saw all 32 articles, albeit in different contexts and with different source associations per experimental rotation.

Participants

The experiment was completed by 227 undergraduate students at a large Midwestern university. Fifteen participants were removed from the sample for technical problems. Nine participants were removed for not following the instructions during the experiment, leading to incomplete exposure results. Six participants were removed for spending too long on the overview or contents page (see explanation under 'selective exposure' below). This left a sample of 197 participants who were included in the final analyses. The remaining participants were generally young (M = 21.51, SD = 2.87), with more female than male participants (70 males vs 127 females). The subjects were mostly Caucasian (144 White/Caucasian), although other ethnicities were included: 29 were Asian, 11 African-American, seven Hispanic/Latino, and six identified as multiracial. The political ideology of the participants was generally neutral. Political ideology was measured using a one to seven scale from 'Very Liberal' to 'Very Conservative' (M = 3.8, SD = 1.48).

An additional 57 participants served to pretest the stimuli (see below) and were on average M = 22.75 years old (SD = 3.46). These participants were also recruited through extra credit.

Procedure

Participants were recruited through instructor class announcements and received extra credit. Up to five participants were administered in one session. Upon arrival in the research lab, they were provided with a consent form and answered a questionnaire on demographic information. They also received an ID number to connect the various parts of the data collection session. Next, they completed either the online or the print selective exposure task. The order of these tasks was randomized across participants through pre-generated numbers. A distractor task (assessing black-and-white abstract artistic patterns) was performed in between the two selective exposure tasks. Each selective exposure task lasted six minutes, although participants were not informed of the period of time they had to read the publications and were merely told they would be prompted when they should move onto the next part of the study. At the end of the time period, either a pop-up message on the screen appeared or an experimenter (who used a timer) prompted the participant to move to the next step in the procedure. As each participant completed both the print and web exposure, the resulting within-subjects design increases the statistical power as well as controls for individual differences, allowing greater certainty that the differences in selective exposure found are the result of the manipulations (delivery format, topic, and source credibility) than other extraneous factors (Greenwald, 1976; Shadish, Cook, & Campbell, 2001)

The online news site presented participants with an overview (examples at http://bit.ly/2cIVncU). Clicking on any headline redirected to the article page where the headline, summary, and source attribution were presented alongside the article body. The online article pages always featured a simple ad, similar to the print articles. By clicking a 'Back to Overview' button, participants could go back and select another article as they pleased. In the print

condition, the magazine opened up to a contents page similar to the online overview page. Each subsequent page featured an article on the left-hand page and an advert used for coding on the right-hand page (See http://bit.ly/2cIVncU for examples).

After completing both selective exposure tasks, participants answered a questionnaire that measured general media habits.

Stimuli and Stimuli Pretest

The magazine and online site were given the fictional name, *The Compilation*. A tagline ('A collection of articles from around the country') was used to prime participants that the articles came from multiple sources. Four different versions of the magazine and website were made. Each of the four versions contained a different combination of articles between the two formats, with the articles also receiving different source attributions in each version. Full information on the rotation order can be seen at http://bit.ly/2cIVncU. Each article was always shown with a simple ad banner or ad page (which allowed coding the taped reading of articles in the print version). The same ads were used, with adjusted size formatting for print versus online contexts. Same fonts and font sizes were used for the various news elements across the print and the online context.

Articles consisted of a headline, article summary, and body text. The body text was based on articles culled from real websites, adjusted for length and flow. All articles were designed to fill exactly one page of the magazine, with a mean length of 638 words (SD = 37.82). The article headlines and summaries were phrased to give the impression of being either hard news or soft news. All headlines were between eight and ten words. All article summaries were between 26 and 28 words. All headlines and summaries were pre-tested for both the perceived hard/soft news value as well as ideological bias. Although articles were written to fit within topics often

related to hard news or soft news (e.g. National Politics and Business as hard news, TV and Style & Fashion as soft news), based off Reinemann et al. (2011), political relevance was used as our measure of hard versus soft news. Participants were asked: 'Do you think the story is politically irrelevant or politically relevant?' on a seven point scale (from '(1) very irrelevant' to '(7) extremely relevant'). Ideological bias was measured by asking 'Does the story favor a particular political ideology or is it neutral?' on a seven point scale ('(1) Very Conservative' to '(7) Very liberal').

All hard news headlines and summaries were perceived as being significantly more politically relevant than all soft news headlines and summaries; all soft news headlines and summaries were perceived as significantly less politically relevant than all hard news headlines and summaries. All headlines and summaries were not seen as significantly different from each other in terms of their ideological leaning. (See http://bit.ly/2cIVncU for details.)

For the sources, 16 fictional news organization were created and assessed in a pretest for (a) how credible participants believed the news organization was ('Do you think the news source is likely to be a high or low credibility source?'; on a seven-point scale, from '(1) very low credibility' to '(7) very high credibility') (b) whether participants believed the source would be mostly amateur or professional ('Do you think the news source is likely to be mostly professional or amateur journalists?'; from '(1) Entirely amateur' to '(7)Entirely professional') and (c) whether the source was ideologically biased ('Do you think the news source is likely to support a particular ideology or is it neutral?; from '(1) Very conservative' to '(7) Very liberal').

The pretest found that all sources targeted for the high-credibility/professional sources category were deemed as significantly more credible and professional than all sources that were planned to be used for the low-credibility/amateur source category, and vice-versa. All sources

were not perceived significantly different ideologically from each other. (See http://bit.ly/2cIVncU for details.)

Although no specific measure checked if participants in the main study believed the sources to be real, participants were prompted at end of the survey as follows: "we would be grateful for any feedback you are able to give us about the study. You could include information about: […] if any part of the study stood out for good or bad reasons". No participant indicated they felt the sources were fake or manipulated, with many stating they enjoyed reading the articles.

Measures

Selective exposure. Selective exposure was measured as the seconds spent reading a particular article page. Behavior of participants in the online version was tracked unobtrusively by software, using hyperlink clicks to log the viewing time for each article page and the overview page. In the print version, discretely placed cameras filmed the participants reading. Four trained coders coded the color of the advert on the magazine page open for each second of the selective exposure task, which could then correspond to the article on the same page. Inter-coder reliability was established on the videos for thirty randomly selected participants using the cumulative time for each advert per participant. Reliability was tested using Krippendorf's Alpha; values ranged from .82 to .99, with an average of .93.

Based on this logging or coding of selective exposure, a reading time in seconds could be derived for each of the 32 different article. These times were then condensed into eight selective exposure measures for *online vs offline* (delivery format), *hard versus soft news* (news type), and *high versus low credibility* (source credibility) as three within-subjects factors. As mentioned above, participants who spent more than three standard deviations above the overall mean

selective exposure time for the content/overview index page (more than 150 s in the print condition, or 185 s in the online condition) were removed from the sample.

Measuring selective exposure unobtrusively through click logging by time (in seconds) captures more nuance than just the mere selection of one message over another. The approach is commonly used in previous research on political information and sources and has been cross-validated with other observational selective exposure measures (Knobloch, Hastall, Zillmann, & Callison, 2003; Knobloch□Westerwick et al., 2013)

Media use preferences. Two media use measures captured both differences in medium use (online versus traditional media) and use of social media. *Online News Preference* (ONP) was measured by asking participants to agree or disagree with the following sentence: 'I get most of my news online compared to print or television', from '(0) Completely false' to '(8) Completely true' ($M = 6.46$, $SD = 1.69$). *Social media news preference* (SMNP) use was measured by asking participants 'How much of the news you consume do you estimate you get from the following sources – Social networking sites or online forums (such as Facebook, Twitter, Reddit etc.' from '(0) None of the news I consume' to '(8) All of the news I consume' ($M = 5.84$, $SD = 1.72$).

Political interest and efficacy. To control for individual habits regarding political information, political interest and efficacy were captured. Political interest was measured by asking participants 'How interested are you in information about what is going on in politics and public affairs?' from '(0) Not at all interested' to '(8) Extremely interested' ($M = 4.73$, $SD = 2.06$). Political efficacy was captured with an average across five items from Pingree, Brossard, & McLeod (2014), for example, "I feel confident that I can find the truth about political issues," from '(0) Strongly disagree' to '(8) Strongly agree' ($M = 4.15$, $SD = 1.62$, $\alpha = .827$).

Results

To address the hypotheses and research questions, an ANOVA with repeated measures was conducted. Selective exposure measures were differentiated by the following within-subjects factors: delivery format (online vs offline), news type (hard vs soft news), and source credibility (high vs low credibility sources). Hence, eight selective exposure measures were included in the analysis, resulting from the 2 x 2 x 2 within-subjects factor design. ONP and SMNP were included as covariates in the model. Control variables included political interest and efficacy; gender; and the order in which the participant completed the exposure tasks (print or online first).

A significant impact of delivery format emerged, $F(1, 187) = 7.64$, $p = .006$, $\eta^2_{partial} = .039$, because the offline format generally produced longer total time spent reading across articles, $M = 324$ s, $SD = 28$, as participants delved right into reading when offline and largely ignored the content index page. On the other hand, the online format yielded shorter article reading times, $M = 292$ s, $SD = 30$, because the selection of online articles occurred while spending some time on the overview page.

News type affected selective exposure in a main impact, $F(1, 187) = 4.45$, $p = .036$, $\eta^2_{partial} = .023$. Participants spent more time with soft news, $M = 372$ s, $SD = 163$, than with hard news, $M = 245$ s, $SD = 157$, supporting H1. While there was no significant interaction between news type and delivery format ($F(1,187) = 2.17$, $p = .142$), offering a lack of support for H2, there was a significant interaction between news type and ONP, $F(1, 187) = 5.92$, $p = .016$, $\eta^2_{partial} = .031$, whereby ONP was a significant positive predictor of hard news consumption, $\beta = 22.53$, $S.E. = 6.27$, $p<.001$, as well as a negative predictor of soft news consumption, $\beta = -18.48$, $S.E. = 6.65$, $p = .006$. This is in the opposite direction anticipated by H3.

Moreover, the above-mentioned interaction between news type and ONP further depended on the delivery format, $F(1, 187) = 5.92$, $p = .016$, $\eta^2_{partial} = .031$, as greater habitual online news use fostered increased hard news in the print condition, $\beta = 15.9$, *S.E.* = 3.92, $p<.001$, and decreased soft news in the print condition $\beta = -16.08$, *S.E.* = 4.13, $p <.001$.

Turning to the high vs low credibility sources, we found no significant effect of source credibility on selective exposure. Participants were not more likely to consume news by credible as opposed to non-credible sources, $F(1,187) = 0.18$, $p = .672$, nor did the delivery format impact the amount of news consumed by credible sources, $F(1,187) = 0.31$, $p = .579$), offering a lack of support for H4 and H5 respectively. Only one significant interaction regarding source credibility was found: SMNP affected selective exposure based on source cues, $F(1,187) = 4.064$, $p = .045$, $\eta^2_{partial} = .021$, whereby increased social media use for news predicted a decreased exposure to high credibility/professional sources, $\beta = -12.01$, *S.E.* = 5.19, $p = .022$, offering support for H6.

Discussion

How media users encounter and select news is undergoing drastic changes. A shift from linear to hierarchically structured news as well as the increase in selectivity afforded by online news create new challenges for news consumers. Per information foraging theory, users face greater difficulty navigating through the available information (Pirolli, 2003). News users must subsequently strive to cope with an information overload (Eppler & Mengis, 2004), which would draw them towards soft news, and to use fewer cognitive resources to check for indicators of credibility (Pearson & Kosicki, 2016).

To test whether any of these concerns are justified and to disentangle how these factors may have shaped what news consumers attend to when reading news, a carefully designed experiment was conducted. First of all, a trend towards longer reading periods in the print

condition was observed. While in the online condition participants spent longer on the overview screen selecting which articles to read, in the print condition they often spent little to no time on the content page, instead flicking through the magazine until finding a suitable article. This suggests that the online condition yielded greater selectivity of articles, as participants spent longer evaluating their options before reading.

The results showed generally longer selective exposure to soft news per H1, but H2 was not supported, and H3 was found to be in the opposite direction, with the results suggesting online news led to increased, not decreased, hard news consumption. This finding challenges previous assumptions, which suggested users would read more soft news online (Prior, 2007; Tewksbury & Althaus, 2000).

This finding seems counterintuitive. Given that consuming traditional non-digital media usually requires additional effort upfront to access, it had been expected that traditional news users would be more inclined to seek out hard news and politically relevant information. However, the present findings show the opposite. It should be noted the present experimental design did not distinguish between different types of offline news (for instance differences between magazines and newspapers). It could be that reliance on some non-digital delivery formats does show lower amounts of hard news consumed compared to online, while others do not. Furthermore, such results could be an artefact of the sample used in this study. It could very well be that the young college age student is equally comfortable acquiring hard news online than from other sources.

Given widespread theoretical concerns over the spread of soft news online (Bennett, 2012; Pearson & Kosicki, 2016), investigation of this topic is warranted. While previous studies have examined audience's selection of soft news (Althaus & Tewksbury, 2002; Bro & Wallberg,

2014) such studies have often failed to quantitatively track what audiences choose to consume. This experimental evidence tracking participant attention to articles suggests that many individuals were already inclined towards soft news, and when foraging for this information, this inclination was not heightened by consuming news online.

The second set of hypotheses (H4 through H6) dealt with people's exposure to high vs low credibility sources. Overall participants showed no difference in exposure to high vs low credibility sources, however we did find that SMNP led to a decreased consumption of news by high credibility sources. It appears that, as users consume greater amounts of news from social media, they pay less attention to potential source cues, or are less interested in giving credence to the skills of professional journalists. Such a prediction was hypothesized by the way-finding framework (Pearson & Kosicki, 2016), however such claims were merely theorized. This paper offers data to suggest such concerns may be warranted. It appears that, as news users rely more on social media for their news, they have evolved to browse through information in different manners. The layout of social media, which often lowers the significance of the news source (Thorson, Vraga, & Ekdale, 2010), has apparently taught people to select news using different criteria.

Given the potential for unknown, low-credibility sources to make errors, or sometimes purposefully spread misinformation, the findings here suggest that scholars should be increasingly concerned about the potential for social media users to select news from low-credibility sources, and potentially as a result come into contact with more fictitious information.

Limitations of the present research must be noted: The use of a student sample means it is difficult to claim the results to be truly representative of the wider public. Given the study design, recruiting a random sample would have been prohibitive. Further, given the sample did

contain a number of users who relied more on print than online news, comparisons between print and online orientated individuals could still be made. However, use of a college sample meant the sample was generally more highly educated and younger than a nationally representative sample, as of such, it is highly likely the participants would be more used to online technologies and more competent with them than the general populace. Replicating this study design with a more representative sample is desirable, albeit difficult.

Secondly, the study used fictional sources to ensure that individuals would perceive sources as politically neutral, and to negate users' previous experiences with those sources which could lead to differing credibility assessments of the sources. However, while the news sources were pre-tested for political ideology, credibility and professionalism, it may be that the heuristic cue was not enough for news users to make judgments on the grounds of source credibility. Certainly previous studies have found evidence that source cues do lead to news selection (Hu & Sundar, 2009; Knobloch□Westerwick et al., 2013), but such designs have not shown effects when selecting news from unfamiliar news sources. It could still be the case that news users do use methods to assess the credibility of unfamiliar news sites, however we did not find such discernment here. This said, as argued earlier, the study of credibility assessments in unfamiliar news environments is warranted. Use of news aggregators and consumption of news via social media make it more likely that users will come into contact with sources they are unfamiliar with, and as of such, making credibility assessments 'on the fly' becomes a more regular occurrence for news consumers.

The way-finding framework questioned whether the changing online news environment would necessitate two changes in news audience behavior: firstly, whether the environment could support hard news, and secondly, whether news audiences would remain keen to make

credibility assessments (Pearson & Kosicki, 2016). The results here offer support for one of these concerns, while diverging from the other. The findings indicate that any impact caused by a shift from offline to online news is either minimal or even mildly positive in terms of consumption of hard news. However, more worrying, is the tendency for habitual social media users to consume seemingly low-credible news sources, suggesting that the attention users pay to sources in the online environment may be more of a concern for scholars than the potential consumption of soft news. Obviously, certain assumptions about how news users attend to news cannot be taken for granted, without having examined them through careful, rigorous designs that truly disentangle actual, observed behavior.

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