News consumers perceptions of new journalistic sourcing techniques

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NEWS CONSUMER PERCEPTIONS OF NEW JOURNALISTIC SOURCING TECHNIQUES

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This study examines how news consumers evaluate the use of digital sources in the journalistic news production process. It also assesses to what extent credibility judgments depend on whether consumers learn that journalists have visibly verified the information they have obtained from a certain source. Using a scenario study, we found that scenarios picturing online sourcing techniques, such as using information from Twitter and Facebook, are perceived as non-credible. This negative judgment is not mitigated by visible verification.

Introduction

Using information found on Twitter, Wikipedia, or Google has become an integral part of the daily working routine of many journalists. Research confirms that online sources are becoming ever more visible in the news, and that they have enriched rather than replaced more traditional ways of journalistic sourcing (e.g., Hermida 2013; Paulussen and Harder 2014; Tylor 2014; Vis 2013). However, a journalistic toolbox comprising both online and traditional sources also brings new challenges (Lecheler and Kruikemeier 2016). For instance, there are doubts about whether journalists always have sufficient technological skill to verify online sources such as quotes from Twitter (Schifferes et al. 2014). As a consequence, the anonymity of the internet could inhibit rather than enrich the production of high-quality stories in journalism (Bakker, Trilling, and Helfer 2013; Schifferes et al. 2014).

One might also wonder if the advent of online sources has not also changed news consumers' perception of the quality of news. Examining the credibility of online sourcing is essential to our understanding of journalism. Studies show that media messages that use credible sources have stronger effects on citizens and that media outlets that employ trusted sources are more successful economically (Druckman 2001; Hovland and Weiss 1951). On a larger scale, source credibility is related to media trust, which is often held as one of the requirements of a functioning democracy, and the role of media within that democracy (Tsfati and Cappella 2003).

So, do readers care if a quote in a news article stems from Twitter or from a traditional interview? Research suggests that they do. While little is known about how news consumers evaluate the use of digital sources and social media in journalistic news production, there is evidence showing that online information as a whole is evaluated very differently to traditional or "offline" pieces of news (Chung, Nam, and Stefanone 2012). Moreover, news consumers should appreciate the inclusion of online sources into news, as they appear more

immediate and unfiltered (see, e.g., Kristensen and Mortensen 2013) than professional traditional sources, such as press conferences or face-to-face interviews. Yet, other studies suggest that online sources might be perceived as not credible, because of lack of validation of these sources by journalists (e.g., Schmierbach and Oeldorf-Hirsch 2012). When online sources are not perceived as credible, it might not inform or interest readers.

Such seemingly competing conclusions may be related to the fact that the available research has so far neglected two important aspects of online sourcing in journalism: first, they have not yet examined the concept of "online sources" in its full complexity. The umbrella term "online sources" covers a wide range of different online platforms. Given the current development of the internet, it is overly simplistic to equate news consumers' perceptions of using social media, such as Twitter, with the use of, for instance, party websites for information on electoral campaign strategies. Second, the question of whether an online source is perceived as credible or trustworthy by news consumers also depends on *how* a journalist handles the source, that is, if they actually verify information obtained from that source. The abundance of information online and offline, paired with an accelerating 24-hour news cycle, renders proper verification; the most important and the most challenged aspect of journalistic sourcing (e.g., Hermida 2013). A lack of verification is likely to downscale any differences in perceived credibility or trustworthiness between different online sources, as well as between online and more traditional sources of journalistic news production.

To alleviate these shortcomings in the literature and to thus examine news consumer evaluations of new sourcing practices of journalists, it is important to examine how news consumers evaluate different sourcing practices and verification strategies that occur today. For that reason, an online vignette-based study was used; such a design helps us to examine news consumer perceptions towards an extensive amount of journalistic sourcing practices. In the vignette (or scenario) study, participants were asked to provide their evaluation of different journalistic sourcing strategies during the news production process (using scenarios wherein a journalist uses either Facebook, Twitter, Wikipedia, a website, Google, email, an interview, a stake-out,[1] a press conference, a press agency, or the telephone to gather information). In this way, we can move beyond the simple entity *online sources* and compare many different sourcing practices. In addition, we test whether it matters to news consumers if the scenario states that the information stemming from the above sources is either visibly verified or not verified by the journalist in question during the displayed news production process. In sum, rather than studying public perceptions of news content, our results represent a more direct evaluation of current journalistic behavior itself. In this way, we offer an important contribution to a growing literature on the changing face of journalistic news production, as well as the impact the internet has on journalism practice.

Judging the Credibility of Journalistic Sourcing Techniques

A number of professional routines dictate how journalists find sources, how they verify information obtained from these sources, and how they use sources in their stories (Gans 1979; Reich 2009). The goal of these routines is, in most cases, to produce balanced and high-quality news coverage. This means that journalists choose sources they deem both relevant and credible in a given context (Reich 2011). Besides influences on journalistic production, such as individual values and organizational pressures, such

professional standards are rooted in the idea that news consumers will also notice which sources are used in a news report, and that the use of trustworthy sources in news reporting increases the credibility of the news outlet itself. Ultimately, news consumers' perceptions of journalistic sources translate to more general perceptions of media trust and journalistic credibility (e.g., Kiousis 2001). High levels of media trust are crucial, because media trust is one of the requirements of a functioning democracy and the role of media within that democracy (Tsfati and Cappella 2003).

In research, source credibility is usually defined as consisting of two dimensions: *expertise* and *trustworthiness*. Expertise refers to the extent to which a source is perceived as capable, and trustworthiness is the perceived integrity of a source (e.g., Ohanian 1990; Pornpitakpan 2004). It remains a question of how news consumers determine the credibility of a journalistic source. A great variety of studies suggest that news consumers' judgment of general source credibility may be based on a number of factors. First, an individual's prior knowledge or evaluative judgments of a source. Previous positive experiences or a well-known cognitive or affective structure regarding a source thus determines judgment of this source later on (e.g., Eastin 2001; Petty and Cacioppo 1979; Wood and Kallgren 1988). Second, they are based on credibility markers or cues attached to the source itself. This is particularly relevant if an individual has no knowledge of a particular source. Such cues could be the credentials of a source (e.g., Austin and Dong 1994) or other well-known credibility cues (e.g., visual cues; Lowry, Wilson, and Haig 2014). Third, credibility judgments depend on the message that is attributed to the source itself. This means that news consumers may also judge a source's credibility from the message itself, particularly if they have no prior knowledge or if only a few cues are attached to this source (Slater and Rouner 1996). In addition, source credibility judgments depend on both individual and contextual factors that are independent of the message or source itself. For instance, credibility judgments can be explained by referring to certain character dimensions of an individual, such as levels of trait neuroticism or openness to experience new information (Oreg and Sverdlik 2014). Also, a number of studies have shown that message credibility is explained by the context in which this message is presented, how often a reader is exposed to it, and when (Reinhard et al. 2014).

When it comes to judging the credibility of a singular source within a political news message, each of these factors may apply. Yet, we argue that, in the case of the credibility of journalistic news, it is also the *modality* with which a source is handled that is decisive for its credibility (see Pornpitakpan 2004). By modality, we simply mean that credibility also depends on the *technique* a journalist uses in producing a news message. This technique matters, because journalistic news depends on the reliability and quality with which it is produced. In this sense, the initial trustworthiness of the individual source will likely interact with this technique, meaning that its initial credibility depends on the way this source is contacted and integrated into a journalistic news message. This idea resonates with studies that use a technological deterministic perspective, which argue that the channel might be more important and not the source in particular (Sundar and Nass 2001).

The Credibility of New Sourcing Techniques

The literature on news consumers' perceptions of the use of sources in journalistic news production is limited. Especially studies that examine the perceived credibility of *online* sourcing techniques of journalists are scarce. To our knowledge, only two studies

have directly examined the credibility of *journalistic* online sourcing techniques. Hermida et al. (2012) examined how social media affected news consumption, based on an extensive online survey. They also examined news consumers' "attitudes towards the use by news organizations of material sourced from social networks such as Twitter and Facebook" (821). They found that news consumers evaluate journalistic material sourced from social media relatively positively. Only one-third of participants in this study showed negative perceptions towards the use of information from social networking sites (SNSs) as news sources; one-third were positive and one-third of news consumers were unsure about the use of social media sources in the news. Moreover, Bakker, Trilling, and Helfer (2013) using a survey-embedded experiment, found that journalistic sourcing from Twitter was deemed credible, but only if the resulting news coverage was attributed to an "expert". Although both studies indicate that news consumers seem to be moderately positive towards information that originates from online sources, they do not offer us insights into the perceived credibility of sources stemming from *different* online platforms compared to offline situations. That is, there are no direct comparisons of, for instance, the credibility of social media and other online sourcing techniques.

To understand how much news consumers should trust the use of sources in journalistic news production, we thus turn to internet and media credibility studies stemming from persuasive communication, many of which focus on source credibility of different media messages in general (Johnson and Kaye 2013). This work shows that online information is sometimes regarded as more reliable than offline information (Schmierbach and Oeldorf-Hirsch 2012). Johnson et al. (2007) found that blogs were evaluated as moderately credible, but they were at least perceived as more reliable than mainstream media or other online sources. Others are more skeptical: they believe that online information is regarded as less credible by news consumers. Due to the openness of the internet, everyone can be an author of online information (Lucassen and Schraagen 2011). Information posted online often has no identified source itself (which is the case with websites, Wikipedia, and Google). This makes it difficult for news consumers to trust online information used in journalistic news, as studies often pointed out that people base credibility assessments on the source of the information (for an overview, see Wathen and Burkell 2002). Moreover, online information often stems from unprofessional actors (Metzger 2007). "[T]here are no universal standards for posting information online, and digital information may be easily altered, plagiarized, misrepresented, or created anonymously under false pretenses" (for an overview of the literature, see Metzger 2007, 2078). Information online can thus be inaccurate or incomplete, and lacks established reputation (Flanagin and Metzger 2007), which makes information stemming from online sources not credible in the eyes of news consumers.

Taken together, the evidence tentatively supports the notion that online information is regarded as less credible than offline information, but evidence remains conflicting (see, Bakker, Trilling, and Helfer 2013; Hermida et al. 2012). However, online and offline information should not be treated as polar end points on a single dimension (Hu and Sundar 2010). They represent an assembly of different sources. News consumers' perceptions of using social media, such as Twitter, might be totally different than using a website for information or obtaining information from a telephone interview. Recent evidence seems to support this notion. Johnson and Kaye (2013) found that websites authored by established organizations were rated as more credible than websites by individuals. This could also suggest that information stemming from organizational online sources, such as websites

and search engines, will be regarded as more credible than information from online sources where a single author posts information (i.e., social media).

It has also been demonstrated that Twitter posts by news organizations are perceived as less credible than news articles presented on a newspaper website and, to a lesser extent, on blogs (Schmierbach and Oeldorf-Hirsch 2012). This suggests a particular hierarchy in the perceived credibility of sourcing techniques used by journalists and this relates to two considerations. The first is connected to the *novelty of the channel* of the provided information. Information stemming from social media is often more recent or immediate than information from more established online platforms (e.g., websites and email). These established platforms are, in turn, more novel compared to traditional forms of information gathering used by journalists (e.g., calling a source or going to a press conference). The second is connected to the unknown author of the online content. Information from social media is often stemming from *one* unknown author, while information from Google and Wikipedia are often stemming from *multiple* authors. People might perceive information from multiple unknown sources as more credible (as it inhibits some kind of collective effort) than from a single unknown author. So, based on this technological deterministic approach, the immediacy of information provided might create an order in the perceived credibility of sources used by journalists in news production, in which social media is perceived as the least credible, followed by other online sources, and then traditional news-sourcing techniques. Taking this together, we propose the following research question:

> **RQ1:** To what extent do news consumers consider traditional journalistic sourcing techniques to be more credible than newer forms of sourcing?

The Moderating Role of Source Verification

As mentioned above, it is not only the journalistic source itself used in a story, but also the way it was handled by the journalist that determines credibility and quality news (Schifferes et al. 2014). Among different journalistic routines, source verification is probably the most important aspect of proper sourcing and quality news production.

In recent years, studies on journalistic source verification have focused on questions such as journalists' level of media literacy, or their ability to actually identify "who is a reliable source, filtering out fake pictures and video content, and using geo-location to cross-check where individuals actually are" (Schifferes et al. 2014, 415; see also Garrison 2000). Indeed, research shows that, while journalists have generally embraced the presence of online information (e.g., the use of search engines such as Google) into their daily routines, there are a number of challenges to using online sources. For instance, there is evidence that journalists are not sufficiently aware of the way online search tools function, and that their use of search engines results in personalized search results later on (e.g., Tylor 2014). Also, some authors suggest that it is nearly impossible for journalists to properly identify the geo-location of social media sources such as tweets or Facebook messages (e.g., Schifferes et al. 2014).

To some authors, this has brought concerns. For instance, Broersma and Graham (2013, 461) argue that in tabloid newspapers "tweets seem to be taken at face value. There are no signs that the source or other sources were contacted to verify information that was twittered. This might indicate 'sloppy journalism' and erodes journalism as a practice of verification." Yet, Hermida et al. (2012) suggest that new forms of reporting online, as

well as the changed architecture of a 24/7 news cycle, challenge traditional forms of verification, replacing them with a new iterative form of news, where false accounts or mistakes are corrected by the public online, maybe even instead of by journalistic news production and quality checks.

Nevertheless, verification in some form or other is the backbone of "good" journalism (see Shapiro et al. 2013). In line with our credibility cues argument above, we argue that news consumers do not implicitly trust that such verification occurs on the side of journalists. Rather, an account of verification (as is sometimes demanded in journalistic ethics and codes of conduct) should improve news consumers' perceptions of journalistic sourcing techniques. We thus hypothesize:

> **H1:** Visible verification of a journalistic source will improve the credibility of that sourcing technique.

Along these lines, the visibility of verification could even override the lower credibility of a particular online source and therefore render both online and traditional sources equally credible. In other words, when news consumers consider a sourcing technique as not credible, verifying the information could make the information more credible from a news consumers' standpoint, regardless of whether the information stems from online or offline information. To what extent this is the case, particularly given current doubts that some online information can be verified at all (Schifferes et al. 2014), is yet to be determined. We therefore ask:

> **RQ2:** Does visible verification of a journalistic source equalize different credibility ratings of traditional and newer journalistic sourcing techniques?

Method

Design, Participants, and Procedure

To test our hypothesis and to answer our research questions on journalistic behavior, we conducted an 11 (sourcing scenarios: Facebook versus Twitter versus Wikipedia versus website versus Google versus interview versus stake-out versus press conference versus press agency versus mail versus phone) × 2 (verification scenarios: no verification versus verification) mixed factorial survey design. This survey used an online questionnaire and Research Company PanelClix administered the mixed factorial survey design. PanelClix sent questionnaires including our design to a representative sample of members of their panel (following demographic segmentation regarding age, gender, and region). The data were collected in December 2014. Source and verification were both between-subjects variables, and every participant was exposed to 2 of 22 scenarios that formed the stimulus materials.

Our factorial survey design represents an experimental design in which participants are presented with scenarios ("vignettes") displaying certain types of journalistic sourcing behavior as it happens in real life. This state-of-the-art method is used in various fields of social sciences (such as health-care research, social psychology, and sociology), and has also regained popularity in political communication and journalism research (Niederdeppe et al. 2012; for more information about this methods, see Helfer and Van Aelst 2015; Kingsley Westerman, Park, and Lee 2007). A vignette study is a powerful methodology for causal examination of people's perceptions (Atzmüller and Steiner 2010; Finch 1987), as it uses an

experimental design to judge decision-making. It simulates decisions and thus gives participants the choice to judge the behavior of another person. The vignette method is often applied in expert research. In our study, the news consumer is the expert, who judges journalistic behavior (i.e., the used sourcing techniques).

In total, 422 participants (50.5 percent female; mean age = 45.23) completed the questionnaire. This sample is representative of the Dutch adult population in terms of these socio-demographic variables.[2] To control for order effects, participants were randomly assigned to two (of the 22) conditions. In addition, by using counterbalancing (i.e., randomly changing the order in which participants were exposed to the scenarios), we can ensure that no systematic variation between the conditions exists (Field 2013). The rationale for showing participants two scenarios (vignettes) was that two vignettes lead to more statistical power. However, including more than two vignettes could lead to methodological bias (i.e., practice and boredom effects; Field 2013). After introducing the survey, participants were told to read the scenarios (i.e., the vignettes) and to imagine that the situation described in the scenarios was real (for a similar procedure, see Kruikemeier et al. 2013). Then, the participants filled out a questionnaire. Subsequently, the participants read the second scenario and filled out the questionnaire. Participants were then debriefed, thanked, and compensated for their participation.

Stimulus Material

The stimulus materials for this study consisted of short scenarios or stories (i.e., the vignettes) in which specific words were changed. The story described a situation wherein a journalist gets an assignment to write a news article about a current political issue in the Netherlands. The political issue was about a conflict between the parliament and the Secretary for Education, Culture, and Science. More specifically, the political issue related to a parliamentary proposal regarding data privacy in primary schools. The parliament boycotts the use of such private information for commercial purposes. According to the Secretary for Education, Culture, and Science, the private information of children can be passed on to businesses. Although the story was fictitious, it was thus based on true events and representative for the daily journalistic news production process in the Netherlands. In each scenario, a number of words indicated which source the journalist would use to collect information about the issue, and whether the journalist verified the information coming from this source. The scenario started with a description of the journalist, next the task was explained (i.e., that the journalist was given an assignment), and then the political issue was described. Subsequently, we altered the source the journalist used to collect the information (i.e., via Facebook, Twitter, Wikipedia, website, Google, mail, interview, stakeout, press conference, press agency, or phone). In addition, we altered the words indicating whether the journalist verified or did not verify the information gathered from this source (see Appendix A).

Measures

Credibility perceptions.   Credibility perceptions were based on a multi-item scale. Participants were asked to evaluate, using a seven-point scale (1 = strongly disagree, 7 = strongly agree), whether the data collection practice of the journalist was reliable (mean = 3.73, SD = 1.74), professional (mean = 3.79, SD = 1.86), correct (mean = 3.76, SD = 1.84),

as it should be (mean = 3.63, SD = 1.87), objective (mean = 3.61, SD = 1.83), accurate (mean = 3.54, SD = 1.85), and fair (mean = 3.71, SD = 1.86). We measured perceptions partly based on a measure that combined two scales (i.e., professional and personal perceptions) from recently conducted research in communication science on audience perceptions of journalists (Lee 2015). Moreover, previous studies were used to construct our scale (Bucy 2003; Cassidy 2007). A factor analysis with varimax rotation revealed that the seven items load on one factor (eigenvalue = 6.34, explained variance = 90.60 percent; Cronbach's α = 0.98; mean = 3.68, SD = 1.75).

Control variables.   Besides our dependent variable, we included various control variables. First, we asked participants' age, gender, and educational level (1 = low, 7 = high; mean = 4.52, SD = 1.42). In addition, we asked participants about their online media use. Because previous research found that people judge their preferred medium of choice as more credible (for an overview of the literature, see Johnson and Kaye 2013), we expect that people who use online media will be more positive about the use of online sourcing techniques. Therefore, we asked participants to indicate how often they read online news from traditional newspapers, online news from online-only websites, and weblogs (1 = 0 days a week, 8 = 7 days a week). A factor analysis with varimax rotation revealed that these three items load on one factor (eigenvalue = 1.71, explained variance = 56.99 percent; Cronbach's α = 0.62; mean = 3.98, SD = 1.94). Yet, in the results (see Table 2), we found that online media use had no significant effect on credibility perceptions. Lastly, to control for order effects, we included a dichotomous control variable that measured whether participants received a particular scenario for the first or second time within the questionnaire. No evidence of order effects was found.

Results

To test whether news consumers' perceptions regarding sourcing practices of journalists differ (RQ1), we conducted an ANOVA with the different sources as predictors (see Table 1). The results showed significant results, $F(10, 833) = 20.37$, $p < 0.001$. In general, we found that online sourcing techniques, and especially the use of social media as a source of news, was perceived as less credible than traditional sources. Somewhat surprisingly, we found that the mean differences and the effect size were quite high, suggesting substantive differences between the use of different sources in the news. More specifically, people perceived the use of social media platforms as sources in the news (i.e., Twitter and Facebook) as less credible (mean = 2.56, SD = 1.33; mean = 2.55, SD = 1.64, respectively), compared to the use of traditional news sources and the use of *other* online sources, such as websites. In other words, we found that the use of social media by journalists as news sources was perceived as not credible. In addition, the use of other online sources (such as Wikipedia, Google, and websites) was perceived as less credible (mean = 2.99, SD = 1.62; mean = 3.02, SD = 1.56; mean = 3.43, SD = 1.69, respectively), compared to the use of traditional (offline) news sources. Thus, people indeed consider traditional journalistic sourcing techniques to be more credible than newer forms of sourcing (see RQ1). Hence, social media were perceived as the least credible, online media were perceived as moderately credible, and traditional sourcing techniques were perceived as credible. Turning to the use of different traditional sources, we do not see many significant differences among traditional sources themselves. However, using an interview or stake-

TABLE 1
Descriptive statistics and mean differences for consumers' credibility perceptions

	Mean	SD	F	η²	Twitter	Facebook	Wikipedia	Website	Google	Email	Interview	Press agency	Press conference	Stake-out
Twitter	2.56	1.33	20.37*	0.20										
Facebook	2.55	1.64			0.01									
Wikipedia	2.99	1.62			0.43	0.44								
Website	3.43	1.69			0.86*	0.87*	0.44							
Google	3.02	1.56			0.45	0.46	0.02	−0.41						
Email	4.25	1.48			1.69*	1.69*	1.26*	0.82	1.23*					
Interview	4.70	1.63			2.14*	2.14*	1.71*	1.27*	1.68*	−0.45				
Press agency	3.81	1.61			1.24*	1.25*	0.82	0.38	0.79	0.44	−0.89*			
Press conference	4.33	1.52			1.77*	1.78*	1.34*	0.91*	1.32*	−0.08	−0.37	0.53		
Stake-out	4.70	1.64			2.13*	2.14*	1.71*	1.27*	1.68*	−0.45	−0.00	0.89*	0.36	
Telephone	4.16	1.55			1.59*	1.60*	1.17*	0.73	1.14*	0.09	−0.54	0.35	−0.18	−0.54
No verification	3.51	1.71	8.14*	0.01										
Verification	3.85	1.77												

*$p < 0.05$ (comparison using Bonferroni).

TABLE 2

Hierarchical multilevel regression analysis for variables predicting news consumers' credibility perceptions

|	Model 1		Model 2	
	B	SE	*B*	SE
Constant	3.46***	0.43	3.79***	0.46
Facebook (reference = Twitter)	−0.05	0.22	−0.49	0.31
Wikipedia	0.29	0.23	0.18	0.31
Website	0.64**	0.23	0.15	0.31
Google	0.35	0.23	0.08	0.32
Email	1.43***	0.22	0.93**	0.31
Interview	1.97***	0.23	1.55***	0.31
Press agency	1.23***	0.22	1.02**	0.31
Press conference	1.63***	0.23	1.31***	0.32
Stake-out	2.06***	0.23	1.80***	0.32
Telephone	1.50***	0.23	1.10***	0.32
Verification	0.25**	0.10	−0.35	0.31
Facebook × verification (reference = Twitter × verification)			0.87*	0.44
Wikipedia × verification			0.20	0.44
Website × verification			0.97*	0.43
Google × verification			0.52	0.44
Email × verification			0.98*	0.44
Interview × verification			0.80†	0.43
Press agency × verification			0.40	0.44
Press conference × verification			0.60	0.45
Stake-out × verification			0.49	0.44
Telephone × verification			0.79†	0.45
Age	0.00	0.00	0.00	0.00
Gender	−0.25†	0.13	−0.24†	0.13
Education	−0.15**	0.05	−0.15**	0.05
Online media use	0.04	0.03	0.04	0.03
Order effects	−0.06	0.08	−0.06	0.08
Variance$_{participants}$	0.99		1.01	
Variance$_{scenario}$	1.37		1.33	
Deviance	3107.94		3026.07	
Participants	422		422	
Scenarios	844		844	

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

out was evaluated as most credible within our study (mean = 4.70, SD = 1.63; mean = 4.70, SD = 1.64, respectively).

Turning towards our expectation regarding the influence of verification strategies on perceptions (H1), we found significant differences as well. As expected, we found that using a verification strategy leads to a source being evaluated as significantly more credible than when no verification strategy was used $F(1, 842) = 8.14$, $p = 0.004$ (see Table 1). H1 was supported.

To test whether news consumer perceptions regarding sourcing practices of journalists differ when a verification strategy was used (RQ2), we conducted a multilevel regression analysis with 844 observations at level 1, nested within 422 participants at level 2 (see Table 2). In Model 1, we predicted the main effects and in Model 2 the interaction effects. We control for

age, gender, educational level, online media use, and for possible *order effects*. The analysis shows a number of interesting and significant interaction effects. We found that, in some cases, using verification would lead to more positive news consumers' perceptions compared to no verification strategy. However, this is not the case for all sources. Verification adds to credibility only in the case of using Facebook (*b* coefficient = 0.87, *p* = 0.049), websites (*b* = 0.97, *p* = 0.026), interviews (*b* = 0.80, *p* = 0.062), telephone conversations (*b* = 0.79, *p* = 0.078), and email (*b* = 0.98, *p* = 0.026), and only when compared to the use of Twitter as a non-credible source (see Figure 1 for a visualization of the interaction effects). The results do not reflect an across-the-board effect. To answer our research question, we can conclude that using source verification does not equalize credibility differences between all sourcing techniques. In other words, according to readers, verification is regarded as an additional aspect of proper sourcing and qualified news production practices and, it seems, not more important for online than for traditional sources.
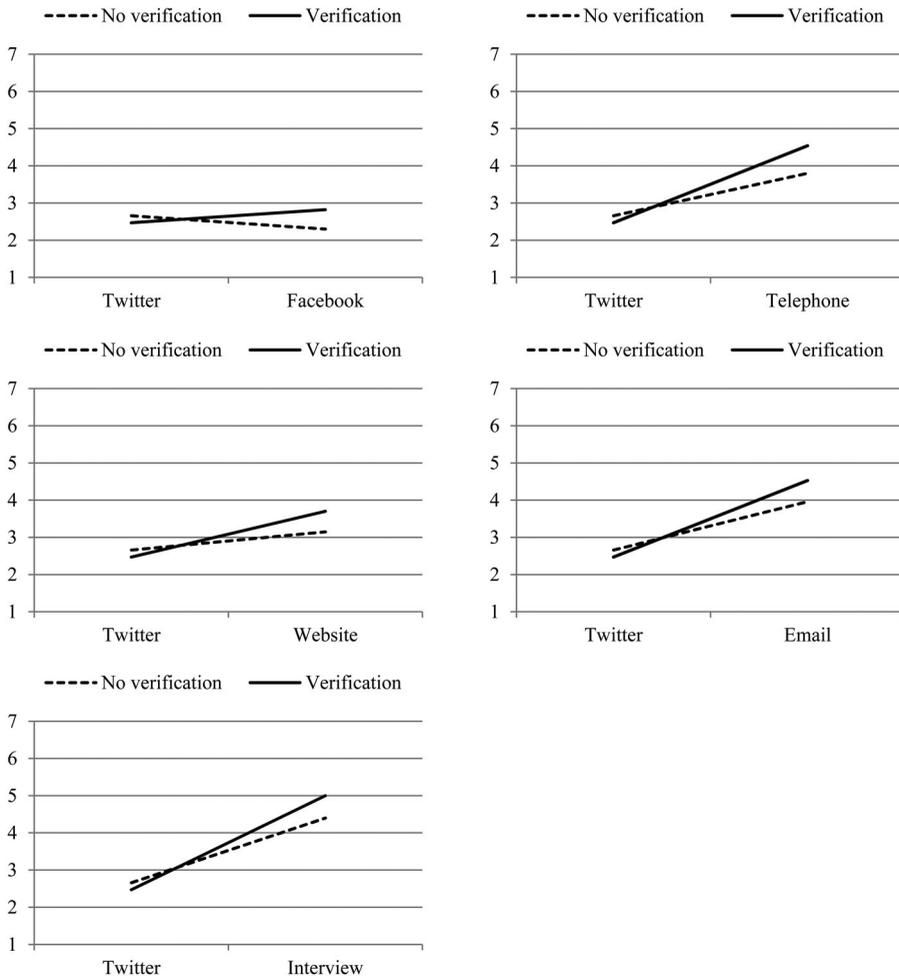
FIGURE 1
Visualization interaction effects

Discussion

The current study tested whether the use of new online sources in the journalistic news production process changes how news consumers view the journalistic news production process. Our results show that news consumers do not appreciate social media sources quite as much as many journalists or observers of public life might think. Also, we find that verification improves the negative standing of some sources, but that it is not consequential for those that really need it, such as the micro-blogging website Twitter.

Our results contribute to the literature in at least two ways. First, this study is among the first that examines how news consumers view journalistic sourcing techniques. By doing so, the study follows previous work that notes: "to understand journalism, we need to understand how people understand journalism" (Kleis Nielsen 2016, 7). In the current study, we show that social media sources might not be as equalizing and immediate as many might imagine. Research has shown that journalists increasingly directly quote from Twitter or Facebook in their reporting, often when in need of "man on the street" views or to dramatize an existing story (Broersma and Graham 2012). Yet, our findings suggest that the use of such quotes might devalue the credibility of a political news report. While social media are likely accepted for other forms of journalism, such as entertainment or sports reporting (Broersma and Graham 2013), they have a decidedly negative connotation in the political realm. This is in a sense surprising, given that tweets or Facebook posts represent an unfiltered and direct view of a politicians' or party's opinions (Lee and Shin 2012; Vergeer and Hermans 2013). The fact that these are "new" new media might play a role, albeit that other (almost equally new) new media, such as Wikipedia, are judged as relatively credible. Thus, importantly, not all online sources are seen as unreliable. Websites and Google are evaluated much more positively. This coincides with recent literature on journalism, which has shown that journalists see websites and Wikipedia as credible news sources (e.g., Messner and South 2011; Tylor 2014). In sum, this certainly suggests that it is now no longer possible to speak of "online" versus "offline" sourcing techniques in journalism, but that a definite distinction needs to be made between new and emerging sourcing techniques on the internet. Future studies might classify these further into social media sources and website or search engine-based sources and could further juxtapose the credibility of each type of source.

A second contribution is connected to our findings regarding verification strategies. One might argue that verification is an implicit mechanism, one that need not necessarily be known to news consumers. Yet, calls for greater transparency and accountability in journalism suggest that visible verification of sources in journalistic writing should have positive effects on news consumers' perceptions of journalism (de Haan and Bardoel 2012). Moreover, as news consumers are often unfamiliar with how news is produced, this could lead to a growth in mistrust towards journalist sourcing practices (Tewksbury, Jensen, and Coe 2011). This study is one of the first to find support for this claim. However, we also show that verification will not benefit all sourcing strategies. For instance, we find that verification improves the credibility of Facebook, but not of Twitter as a source. This is likely connected to the increased anonymity level of Twitter: while Facebook often (but not necessarily) contains full name and location details on a person or organization, this is much less common on Twitter. Along the same lines, we show that verification benefits sourcing journalistic news coverage via interview and telephone, yet not via other "traditional" sourcing techniques. We speculate that news

consumers do not see verification as necessary, if personal and unscripted contact (such as in a stake-out) has occurred (e.g., Sellers and Schaffner 2007).

Naturally, this study has a number of limitations. First, in this study, we asked news consumers' about their perceptions of journalism. In such studies, people might be more prone to give certain (more socially desirable) answers. Therefore, future research should be conducted to verify our results. Second, we focus only on sourcing techniques, not on other credibility cues such as design, structure, and content of sourced information. This means that the news consumers' perceptions on credibility we collect are predominantly focused on previous experiences of news consumers with these sources, as well as their personal views of them. Further studies might combine labels such as "Facebook" or "Twitter" with other content-related variables to further explain credibility of social media sources. A third limitation relates to our vignette design. We went to great lengths to improve external validity in our study, for instance, by using a varied sample of citizens rather than a student sample, and by crafting vignettes that directly correspond to day-to-day news production in the study country. However, our vignettes covered (by definition) shortened and simplified, as well as hypothetical, scenarios of news production and journalistic routines. Our data should be enriched with news consumer studies based on real events and news coverage, as well as content analyses examining the use of different journalistic sourcing techniques. Last, this study was conducted in the Netherlands, a Western democracy wherein journalists enjoy a lot of freedom (Freedom House 2015). It would be interesting to examine to what extent our findings are similar in countries with less press freedom. For instance, it could be that in countries with less press freedom, people do not trust journalists in general. Furthermore, the Netherlands has a high internet-penetration rate. Almost every Dutch citizen has internet access. It is therefore even more surprising that Dutch citizens do seem to believe that social media are credible. It would be interesting to examine this in countries with low internet-penetration rates. Therefore, more comparative work is desirable.

Our study also has a number of implications for the practice of journalism today. First of all, it suggests that more critical thinking is required to avoid any kind of bandwagon effect regarding the use of social media in news reporting. While journalists must certainly make use of social media in representing themselves and their medium in daily life, the blind use of trending topics, tweets, and re-tweets in news articles is not recommended. Another important point is connected to verification. Many journalists view verification as an implicit process, gone through by trusted journalists in the news production process. Our results suggest that media that aim to gain news consumers' trust should increase the visibility of how they verify information, either in daily reporting or in editorial office "mission statements" on the quality of their journalism.

NOTES

1. Stake-outs can be defined as spontaneous press events. They happen outside of hearing rooms or just outside the parliament where journalists are waiting. A minister or member of parliament stops briefly to talk with journalists to give a short interview (Sellers and Schaffner 2007).
2. Dutch population (50.5 percent female; mean age = 41.0, source: CBS Staline, 2014).

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Appendix A

Stimulus Material/Vignettes

Each vignette consists of a general part that is held constant across conditions (in italics) and a stimulus part (in bold).

A journalist works for a Dutch national newspaper. The journalist works for the political desk. During the daily morning editorial meeting, the journalist receives the assignment to write a news article about a parliamentary proposal regarding data privacy in primary schools. This proposal is caused by a recent conflict regarding a new system implemented in some schools that sends children's progress information to publishers that developed e-learning materials. The parliament boycotts the use of such private information for commercial purposes. According to the Secretary for Education, Culture, and Science, Sander Dekker, private information of children can be passed on to publishers. The journalist switches on his computer. He compiles an outline for his article. The journalist decides to write about the disagreement between the parliament and State Secretary Sander Dekker.

The journalist wants to find new information to write the article. He wants to know more about different politicians' viewpoints regarding the subject. He decides to seek out further information through **[Facebook / Twitter / Wikipedia / news websites / Google / interviews / a stake-out in front of parliament / a press conference about this subject /**

news from press agencies / an email with the parties involved / phone calls]. *The journalist finds sufficient information from* **[Facebook / Twitter / Wikipedia / news websites / Google / the interviews / the stake-out / the press conference / the press agencies / emails / the phone calls]. [To make sure everything is correct, the journalist verifies and checks the information he has gotten from Facebook / Twitter / Wikipedia / the news websites / Google / the interviews / the stake-out / the press conference / the press agency / the emails / the phone calls, with other information].** *The journalist starts writing the article.*