

CREDIBILITY CONCERNS FOR ONLINE NEWSPAPERS:  
DO REPORTER COMMENTS INFLUENCE PERCEPTIONS OF CREDIBILITY?

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A Thesis  
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by  
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The undersigned, appointed by the dean of the Graduate School, have examined the thesis entitled

CREDIBILITY CONCERNS FOR ONLINE NEWSPAPERS:

DO REPORTER COMMENTS INFLUENCE PERCEPTIONS OF CREDIBILITY?

presented by Challen Stephens

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and hereby certify that, in their opinion, it is worthy of acceptance.

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CREDIBILITY CONCERNS FOR ONLINE NEWSPAPERS:  
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Margaret Walter, thesis advisor

ABSTRACT

This study seeks to explore the effects of reporter comments on perceptions of credibility when readers encounter traditional news in an online format. Using a between-groups design, the study enlisted volunteers from a local community college to read three traditional, authoritative news articles. Each article was followed by six comments. Control participants saw comments from readers. Experimental participants saw the same comments manipulated to appear as though half had been written and posted by the author of the article. The study finds no results at a significant level in regard to credibility ratings attached to the reporter, the article or the organization. Results are discussed in regard to social presence theory and media equation theory. A significant effect by age of participants is also discussed.

## INTRODUCTION

In the United States, more than 1,300 newspapers print 44 million editions daily. But the media landscape has been shifting rapidly. Those circulation figures have dropped from about 1,500 papers and 56 million daily editions in 1999 (Newspaper Association of America, 2012). The Internet continues to grow as an instant source of information, and the ease of access is rapidly expanding. As of a 2012 survey, 39 percent of adults in the United States got their news online “yesterday.” Just 29 percent got their news online “yesterday” from a newspaper. And 2010 marked the first time in the history of the biennial survey that more people reported getting their news online “yesterday” than from a newspaper. (Pew Research Journalism Project, 2014). Meanwhile, 97 percent of those 18- to 29-years-old now have access to the Internet (Fox & Rainie, 2014). Newspapers, pressed by economic necessity, have sought new ways to reach these online readers.

But the World Wide Web presents a crowded and volatile marketplace, one flooded with ideas and content produced by all manner of competing non-journalist sources. As information providers, newspapers trade on some degree of credibility. Readers tend not to use an information source they do not trust (Gaziano & McGrath, 1988). This study proposes to explore a small piece of the larger question: To what extent does credibility shift as traditional newspapers allow reporters to engage in comments online?

Building on past work about media credibility, this study looks at the reduced social distance between the audience and the reporter. In particular, this study will look at

one facet made possible by the new medium. That's the ability of reporters to respond to readers immediately in a public and visible space among the comments beneath a news article. This study explores the changes in social distance between reader and audience through the lens of social presence theory. The literature review discusses the evolution of credibility research and theories related to legacy media. These are viewed in relation to social presence theory and media equation theory, specifically in regard to possible credibility enhancements provided by the sense of "being with" another communicator. The implications for newspapers may be both significant and practical.

### **Purposes of Research**

In varying degrees, daily newspapers worldwide have taken the step of placing traditional print content in online versions. In the United States in 2006, about a third of Internet users, roughly 74 million, visited the Web version of a traditional newspaper each month (Newspaper Association of America, 2009). Traffic is increasing. By 2012, the most recent year reported, newspaper websites recorded 113 million unique visitors each month. (Newspaper Association of America, 2012).

While print newspapers no longer retain their monopoly as news providers, they do cleave to an authority built on credibility as information sources. Across the Web, blogs turn to newspaper sites for reliable information. Researchers, years before the advent of online news, explored how the distance between journalists and the public influenced media credibility (Gaziano & McGrath, 1987). Gaziano and McGrath studied community involvement of journalists, measuring demographic factors, community group memberships, social contacts and attitudes toward readers. Authors attempted to assess "optimal distance" for enhanced media credibility. Relative isolation of journalists

was proposed as contributing to lack of credibility for traditional media, as such isolation led to misunderstandings, lack of information, and inaccurate perceptions.

Online news has reduced the distance between the reader and the reporter. What used to require a phone call or a formal letter from a reader can now be accomplished in a moment. Readers can simply reply or criticize or inquire at the bottom of a news story. And reporters can and do answer back. Social presence theory suggests that increased social interaction increases awareness and this influences the perceptions of the communicators (Short et al, 1976). The increased interactivity between reporters and readers represents an increase along the awareness continuum suggested by social presence theory.

This study asks: Will the newer online medium, by bridging social distances and increasing social awareness between journalists and readers, enhance overall perceptions of credibility? Potential influences on the perceptions of credibility are considered by article, by reporter, and by news organization.

For this project, the key construct will be credibility. This will be discussed in the ensuing literature review. The definitions of Gaziano and McGrath regarding news credibility and their theories on optimal distance to the source form the starting point for this study (1987). The experimental results will be discussed in light of social presence theory, as well as possible related elements of media equation theory. There is also a discussion of demographic data of participants which is found to have a significant influence on credibility ratings.

## LITERATURE REVIEW

First, this review considers basic material and definitions concerning the construct of media credibility. It looks at relevance today, as well as traces the study of credibility and influencing factors to earlier roots. The review then connects the debate surrounding credibility to social presence theory. Social presence theory is linked to the current manipulation (reporter participation in online comments). The review then considers more recent research and other relevant factors that have been found to influence credibility perceptions, especially in the online medium.

### **Trust in Media**

Americans repeatedly demonstrate low levels of trust in the accuracy of local and national media. In 1985, most Americans said the press got it right most of the time. By 2007, that had flipped, with 53 percent of Americans saying the press gets it wrong most of the time and 55 percent saying reporters routinely demonstrate bias (Project for Excellence in Journalism, 2009.) Trust, or credibility, has long been a significant factor in analyzing media performance and social influence. But credibility has also proved an elusive concept in academic study, as researchers have yet to agree on a single, comprehensive definition.

In the 1950s, Hovland and Weiss conducted some early, influential studies of source credibility, focusing on the perceived “trustworthiness” and “expertise” of the source of the message (1951). Later scholars expanded the theoretical foundation, arguing that credibility is a multi-dimensional concept, which contains underlying factors

such as “safety,” “qualification,” and “dynamism” (Berlo, Lemert, & Mertz, 1970).

Gaziano and McGrath later identified twelve contributing factors that form perceived credibility. These include consumer ratings of whether content is complete, whether content is factual, and whether content is accurate (Gaziano & McGrath, 1986).

Researchers throughout the field also began to differentiate regularly between credibility of the source and credibility attached to the medium itself. Some early researchers noted, and numerous later studies found, large and sustained differences in perceived credibility between delivery modes of television and newspapers (Abel & Wirth, 1977; Gaziano & McGrath, 1986; Atkinson, 2007). In some areas of research, the difference between print and online may be insignificant. A study of media blogs, online news and print newspapers found the third-person effect—in which news consumers attribute greater levels of media influence to consumers other than themselves—to be equally distributed across all formats (Banning & Sweetser, 2007). But that’s not been the case with credibility.

### **Economic Relevance**

Newspapers have entered a protracted state of transformation. Most retain a same sense of mission and agenda, but even the most routine content is transformed by online presentation. Interactivity is increased. Online readers can not only voice opinions instantly but can judge the reaction of the crowd. What were once discrete and isolated reports, though of similar content and length, are now reviewed and recommended by the audience. U.S. newspapers have in large part attempted to stake their territory online, but most have been slow to change newsroom practices or news judgments to meet this new

interactivity. Some have been derided for attempts to place an emphasis on interactivity beyond the traditional news story (Carr, 2014).

Why is online credibility important? Traditional newspapers have been steadily losing readership, which translates to a loss of subscription and ad revenue (Newspaper Association of America, 2009). Without sufficient revenue, legacy media have been cutting costs by reducing reporting staffs (Pew Research Journalism Project, 2014). This has thinned the news product. Meanwhile, traditional newspapers in the United States have been diverting scant newsroom and financial resources to online presentation of news content. But without a credible product, readers may not continue to return to a newspaper (Gaziano & McGrath, 1988). That's not always the case. Case studies in Singapore find that newspapers do not necessarily fail because of a lack of credibility (George, 2007). George's work demonstrates that credibility with readers ranks behind more vital survival issues of finance and availability. But in a free market, those factors overlap. Meanwhile, online readership provides but one-tenth the ad revenue of print readership (Pew Research Journalism Project, 2014). Without a higher degree of credibility than attributed to non-journalist blogs, it is unclear how newspapers can increase readership and attract more revenue online, which is currently the only proven model to underwrite the local journalism vital to democratic participation.

### **What It All Means for Newspapers**

There are concerns about the future of local journalism. Studies find credibility in one environment may not automatically translate to the same content and same source delivered in a different medium (Abdulla, Garrison, Salwen, Driscoll, & Carey, 2002). There has been a great amount of new work in this area, as researchers relate the concept

of credibility, and particularly medium credibility, to the emergence of digital media. Some of this work has opened new lines of inquiry. For example, building on previous work by Gaziano and McGrath, Abdulla and colleagues surveyed 536 adults to examine differences in perceived credibility among television, newspapers and now online news sources. Abdulla established new criteria for assessments of different media. Newspaper credibility was most often based on assessments of balance, honesty, and currency. But credibility of online sources was evaluated differently, rated most often for trustworthiness, timeliness, and bias factors (Abdulla, Garrison, Salwen, Driscoll, & Carey, 2002). Television was also rated differently.

As had been found in earlier studies regarding television and newspapers, the study again found audience credibility in one medium does not automatically transfer to credibility in a second medium. Consumers have different expectations of content online than for print. Traditional newspapers that are establishing an online presence may need to consider new approaches, even if the content remains largely the same, in order to maintain credibility.

Journalists themselves report different attitudes toward print delivery and online delivery. In one recent survey, 45 percent of journalists answered that online delivery was loosening standards and creating less careful reporting methods. (Project for Excellence in Journalism, 2009). However, a survey of online newspaper editors found that online practitioners still applied traditional values for online content. Online editors rank credibility as the foremost concern of 38 site criteria. This was defined as trustworthiness and accuracy. (Gladney, Shapiro, & Castaldo, 2007).

A focus on the underlying factor of source accountability, in particular, may provide a possible theoretical framework to explain such differences in perceived credibility between media (Hayes, Singer, & Ceppos, 2007). Hayes and colleagues contend that enhanced and rapid interaction increases perceptions of trust. Specifically, they encourage more posts, more links, and more connections online for traditional media to increase perceptions of trust. Authors emphasize transparency in sourcing, as well as the newfound ability of consumers to research the journalist and the source. This dovetails with speculation by Gaziano and McGrath in 1986, as they explored the optimal distance to the source for credibility, well ahead of the digital migrations for news providers.

### **Credibility Trends Online**

Here is a look at some significant findings regarding credibility as newspapers go online. Some credibility studies find pre-existing interest in the content itself is key to perceptions of credibility among news consumers (Armstrong & Collins, 2009). That's good news for local and regional papers attempting to deliver the same traditional content in a new medium. Other studies that tackle credibility measures within this transition have identified several other predictive factors of practical and theoretical significance. As established earlier in this paper, Internet use is rising. And Internet use itself has been found to predict credibility for online information. One study used a large mail survey to probe whether extensive use of the Internet led to it being considered a credible delivery format. The findings show that Internet use for information retrieval, as well as newspaper readership, predict credibility for online sources (Sundar & Stavrositu, 2006). However, Internet use for entertainment did not show the same correlation.

A similar effect can be found among reporters themselves. A survey of 655 reporters found online news viewed as moderately credible overall, but online reporters rated online news significantly higher than did traditional print reporters (Cassidy, 2007). Also, this study hints at a growing mindset—those who go online are prepared for digital migration. It may be a simple matter of familiarity, as people trust the medium they know.

In a similar vein, but producing an opposite result, a study of media consumers during the 2000 presidential election found that reliance on traditional media was the greatest predictor of perceptions of credibility for online media (Johnson & Kaye, 2002). This was followed by political trust and convenience. Other studies found that readers attach less credibility to nontraditional Internet sites (Melican & Dixon, 2008). This gives support to the notion that newspaper sites enter a crowded marketplace with the advantage of trust. Several studies suggest that online interactivity itself may enhance credibility (Gaziano & McGrath, 1987; Kiouisis, 2006).

### **Credibility by Source**

Studies have identified several factors that influence the perceived credibility among news consumers. Many communications researchers have found that credibility varies with changes in the medium (Abel & Wirth, 1977; Gaziano & McGrath, 1986; Atkinson, 2007). Although the medium is shifting for newspapers, the source itself—both defined as the originators of the message and the actors contained within—is also influenced by the migration online. The new format makes the source, especially when defined as the reporters, more accessible and easier for the audience to communicate with. Yet they remain part of a traditional newspaper.

The news organization itself is also a source. And one look at how different online organizations affect perceived source credibility among consumers found varying responses to online newspaper sites, journalist blogs, and non-journalist blogs. The non-journalist blog was found to have the highest degree of credibility with readers, regardless of media use, dependency, or political interest of readers (Mackay & Lowrey, 2007). Mackay and Lowrey theorize this may be due to the blog's perceived lack of attachment to any particular institution. The results here suggest newspapers could have trouble migrating online and could have difficulty competing to become a trusted news source as the Web is rife with niche non-journalist publications.

Yet other researchers have found that online sites sponsored by traditional media are perceived as more credible than commercial sources (Flanagin & Metzger, 2003). However, this gap was not as great as anticipated. Flanagin and Metzger explored the interplay of various site features on the perceived credibility of Internet news sources. Researchers found that site design and appearance was a significant factor in explaining the high degree of source credibility for commercial sites. This offers numerous implications for traditional media, suggesting newspapers could enhance credibility for online content by focusing on the style of presentation itself, as much as on traditional tenets of accuracy and balance.

Another study found that readers, as might be expected, attach the least credibility to the less established, nontraditional sites, giving support to the idea that newspaper sites enter a crowded marketplace with an advantage. (Melican & Dixon, 2008). Researchers surveyed news consumers to assess the perceptions of credibility associated with various forms of media, including Internet sites associated with traditional media outlets and

independent Internet sites. Greater trust automatically attached to the traditional sources in the new medium.

But studies have found that credibility does correlate with interest in the content itself (Armstrong & Collins, 2009). And studies have suggested that newspapers may enhance trust through improved site design, careful placement of content and interactive features (Steffes, 2007; Flanagin & Metzger, 2003; Thorson, Vraga, & Ekdale, 2008; Kiouisis, 2006). However, a survey of online editors found that, while they rank the traditional value of credibility foremost, they are slow to adjust to the new medium; online newspapers editors ranked “interactivity” and “community relevance” at the bottom of 38 criteria for online content (Gladney, Shapiro, & Castaldo, 2007).

Some theorize that the new digital technology will reduce distance between journalists and consumers, increasing credibility perceptions as journalists write more posts, add more links, and make more personal connections with readers (Hayes, Singer, & Ceppos, 2007). And others find evidence of a sort of steady assimilation. As more people use the Internet specifically to retrieve information, they will gain more credibility for online presentation (Sundar & Stavrositu, 2006).

Semiological analysis in communications research allows for greater meaning in text than is present in the words themselves. And a similar approach to media credibility could locate influential factors outside the characteristics of the consumer, the source, the medium, or even the message itself. For instance, probing a perceived “credibility crisis” caused by the shifting media environment, researchers have discussed the contributing factor of placement of stories on the new websites of traditional media. Specifically, researchers contend that placement of a balanced story near uncivil commentary

enhances the perceived credibility of the article (Thorson, Vraga, & Ekdale, 2008). Other research suggests that newspapers would enhance credibility for online content by focusing on the style of presentation as much as on accuracy and balance (Flanagin & Metzger, 2003). Thorson and others argue that traditional studies of media credibility too often measure either dispositional elements of the media outlet or the merits of isolated messages.

### **Social Presence Theory**

More recent theoretical work related to media credibility has opened the door for some interesting experimentation with news online. Media equation theory holds that human interactions with computers, televisions, and other media are generally social (Reeves & Nass, 1996). The theory considers the psychological and evolutionary aspects of the receiver, suggesting the audience reacts socially, essentially responding to the medium itself as though it were human. This is a key construct in the new online environment, where news articles are “alive”—reporters make comments and even edit in real-time. Headlines can change in front of your eyes. The theory helps draw the link between audience and reporter interactions and credibility. TV news reports were found to be more credible by Reeves and Nass, despite having the same content as print versions (1996). This was attributed to a human interaction and social cues.

Social presence theory, as originally suggested, posits a continuum of social awareness across the various mediated environments (Short et al, 1976.) The original proposition defined presence as the sensation of — and “the degree of salience” of — the interaction with another intelligent communicator. Today social presence has a range of definitions across various areas of research. Biocca (1997) sorted social presence into

three categories, the physical, the social, and the self. Biocca viewed social presence as the degree to which a communicator is aware of the access to and presence of another's intelligence and intentions. Lombard and Ditton (1997) conceived of social presence as the illusion of no medium.

Here the focus is on social interaction and the way this interaction can move awareness along the continuum, which ranges from face-to-face to telephone to email to print. Where does online news fit? What about when the reporter responds? Researchers further divide social presence into three dimensions: source attention, which is the attention paid to the source; co-presence, or the feeling of being "with" another person; and mutual awareness or psychological involvement, which is the sensation of being "known" by the other communicator (Biocca et al., 2001). All three areas could be influenced by reporter interactions.

Researchers have found a correlation among a reporter's social presence, the audience's co-presence, and credibility. It's been suggested that this connection with the source may be an element in the definition of credibility (Meyer et al., 2010). This is valuable insight for newspapers online.

Meyer in 2012 wrote: "The impact of new credibility concepts, such as co-orientation and social presence, does not invalidate the more traditional credibility definitions originally applied to newspapers. A modern credibility definition must combine the Web's ability to make connections through technology with traditional concepts of trust, believability, and expertise." (Meyer and Lohner, 2012).

## **Increased Interactivity**

Thorson and others suggest that in the new online environment, with instant feedback and links to critical comments, traditional media need to embrace greater interactivity and consider varied placement to enhance credibility (Thorson, Vraga, & Ekdale, 2008).

Hayes and colleagues contend that enhanced and rapid interaction increases perceptions of trust (Hayes, Singer, & Ceppos, 2007). Specifically, researchers encourage more posts, more links, and more connections online for traditional media. This seems to move in step with suggestions of social presence theory. Authors emphasize the potential increases in credibility resulting from greater transparency in sourcing, as well as the newfound ability of consumers to research the journalist, the actors in the story, and the institutional source.

One researcher, attempting to determine the characteristics of media consumers that best predict online interactivity, found that credibility itself predicts who will access the interactive communication features on newspaper Internet sites (Chung, 2008). Credibility had a higher predictive correlation than political engagement. She suggested newspapers identify their audiences first and focus on content before building interactive Web features. "This study, thus, points to the importance of quality news reporting that will in turn build credibility of the news organization and subsequently encourage audiences to actively participate in their online news consumption experiences," wrote Chung.

Another study, examining non-journalistic content providers, seems to support and broaden findings on the interplay of interactivity and credibility. One researcher,

looking at two types of government websites, found greater interaction or usability, which is driven in part by uniform standards of Web design, to be a predictor of both credibility and positive ratings of content quality (Steffes, 2007). The more consumers can interact with online content, the greater their trust and esteem of that content.

Taken in concert with work by Chung and Kiouisis and considered alongside suggestions by Hayes and Thorson, as well as social presence theory, the online interaction with the source appears to portend a possible and rapid increase in credibility for newspapers. First, online presence decreases distance to the source (the reporter). A decrease in distance to the source increases credibility (Gaziano & McGrath, 1987). An increase in credibility leads to more interactivity, or a continued diminishment of distance from the reporter (Chung, 2008). Increased interactivity predicts continued increases in credibility (Kiouisis, 2006).

This study proposes to examine the possible effects of reporter comments on ratings of credibility for news content, news organization, and the reporter. While the participants will not interact with a reporter, participants will read evidence of a past interaction between a reporter and a reader. This study argues this represents both a decrease in social distance between the source (reporter) and news consumer and a corresponding increase in evidence of social presence. This small interaction between reporter and reader stands in stark contrast to static presence in print media. This leads to the following hypotheses.

**H1:** People who read articles where the reporter participates in the comments will report higher levels of credibility in the reporter than people who read articles without reporter comments.

**H2:** People who read articles where the reporter participates in the comments will report higher levels of credibility in the article itself than people who read articles without reporter comments.

**H3:** People who read articles where the reporter participates in the comments will report higher levels of credibility in the news organization than people who read articles without reporter comments.

## RESEARCH METHODOLOGY AND DESIGN

Does the participation of a reporter in online comments influence credibility ratings? This between-group experiment employed an online survey to evaluate variations in perceived credibility by systematically manipulating the appearance of reporter participation in the comments attached at the bottom of online news articles.

A convenience sample of 47 students recruited through the history and political science courses at a land grant institution in northern Alabama participated in the experiment. Students volunteered through a sign-up sheet provided after class. Participants were randomly assigned to one of two conditions.

### **Independent Variables**

*Reporter/No Reporter.* The experiment created three fictional reporters, each with a fictional name and with a non-specific gender. Each reporter was responsible for one of three stories presented to participants.

Participants received a link to a series of three articles of general interest. Each appeared under a different fictional byline. Each article was immediately followed by six comments from readers.

In the reporter condition, participants encountered three comments by online readers. The fictional reporter appeared to respond to each of these three comments. The reporter comments were made clear by title and by indentation.

In the no-reporter condition, stories contained these same bylines with the same fictional name of the reporter. They also concluded with the identical six comments. But in this condition all comments appeared to have been made by online readers.

For example, in the control condition, participants encountered:

**zikes09**

great picture! Hopefully not much damage or any injury

**fourtino**

I watched it from the other side of the bay. From here it appeared to dissipate before reaching the shore.

In the experimental condition, participants encountered:

**zikes09**

great picture! Hopefully not much damage or any injury

**Reporter: Jamie Nicholson**

I watched it from the other side of the bay. From here it appeared to dissipate before reaching the shore.

*News Articles.* Each participant read three brief news articles on topics of general interest. These were selected from newspapers in the Southeast. The articles reported on a bald eagle learning to fly, health benefits of daily coffee intake, and sighting of a water spout in the Gulf of Mexico. The news articles were selected for content that appeared apolitical and non-controversial. The articles did not contain any clearly stated opinion.

Each story was an actual news story as had appeared on the news site of a metro daily in the American Southeast. The reporter bylines were changed, and the fictitious reporters were assigned gender neutral names (Chris Miller, Pat Murray and Jamie Nicholson) to control for gender bias in credibility ratings.

Three separate articles were used to help control for confounding variables of single message design. To control for semiotic effects of positioning, all three articles appear in the same position on the screen. Each ran with one photo.

### **Dependent Variables**

*Credibility:* This multiple-message experiment attempted to explore the relationship between source and audience perceptions of credibility. Specifically, the study looked at the effects of reporter comments attached to news stories. Researchers have used Likert-type scales, semantic differential scales, and content analysis to study credibility perceptions.

Each article in this study was followed by 23 survey questions using a semantic differential scale to gauge responses. The survey terms used are derived from previous studies on news credibility (Abdulla et al., 2002; Gaziano & McGrath, 1986). Three separate credibility factors were combined to form a single variable. The mean score was employed as a measure of credibility. The combination of the credibility scores was tested and verified through a reliability analysis.

The first factor, credibility by article ( $\alpha=.78$ ), contained five items. “I find the news and information in this newspaper article to be:” Inaccurate to accurate. Incomplete to thorough. Not true to factual. Biased to balanced. Not believable to believable.

The second factor, credibility by reporter ( $\alpha=.90$ ), contained six items. “What did you think of this reporter?” Dislike to like. Biased to balanced. And “How would you rate this reporter?” Incomplete to thorough. Inaccurate to accurate. Not true to factual. Biased to balanced. One question pertaining to this factor was dropped from the results due to similarity with another question about dislike to like.

The third factor, by news organization ( $\alpha=.89$ ), contained seven items. “How would you rate this news organization?” Dislike to like. Incomplete to thorough. Inaccurate to accurate. Not true to factual. Biased to balanced. Not believable to believable. Untrustworthy to trustworthy.

Scores for items were averaged to create a credibility index.

## **Procedure**

The hypotheses were tested with a 2 (reporter commented: yes/no) by 3 (news article) mixed-design experiment. Reporter/no-reporter commented served as the between-subjects factor, while news article was a within-subjects factor. During the experiment participants read three articles online and six comments beneath each article.

After reading each article, subjects filled out an online questionnaire containing semantic differential measurements for the dependent variables.

After the third questionnaire related to the articles, subjects were presented with a short survey to collect demographic data, Internet habits, and news habits.

Participants consist of a nonprobability sample of student volunteers at a U.S. university. They were recruited through a sign-up sheet passed out after class. Students averred they were at least 18 years of age to participate. The only other criteria for exclusion was the inability to read or comprehend English at a basic level. Participants were asked to read, understand and sign an informed consent before participating. As an incentive, participants had their names entered in a drawing for a small gift certificate to the campus bookstore.

The researcher randomly assigned students into two groups using a table of random numbers. The subjects were contacted by email and the experiment was

conducted online. Subjects were randomly assigned to one of two experimental conditions. A brief set of instructions was emailed to the subjects along with the link to the experiment. The survey took about 20 minutes to complete. Nine participants completed the reading and questionnaires but did not complete the demographic survey.

Results were collected online and transferred to SPSS for examination.

### **Manipulation Check**

Subjects were presented with two questions after each article to confirm subjects were aware of the manipulated conditions. The first asked if “Readers commented on this story.” The second asked if “The reporter commented on this story.”

Independent samples t-tests found significant differences in the means between the two conditions.

**TABLE 1: Manipulation Checks**

	<u>Reporter comment</u>		<u>No reporter comment</u>		<i>t</i>
	M	SD	M	SD	
“Readers commented on this story:”	2.41	1.23	1.86	.99	1.66
“The reporter commented on this story:”	2.15	1.12	4.63	1.94	-5.19*

\* $p < .001$

Note: Response scale 1 = strongly agree, 7 = strongly disagree

The results for “reporter commented” were significant at the  $p < .001$  level. The results for “readers commented” were not significant ( $p > .05$ ) between control and experiment conditions.

### **Limitations**

This study looked at a narrow portion of online interactivity, specifically the posts attached to online versions of new articles. The researcher selected this area because the news articles most often appear the same, word for word, in print. One key difference online is the availability of interactivity found in the readers’ opportunity to voice views and send messages back to the source. The researcher will be looking to see what happens to credibility when the source (the reporter) replies. But there are numerous other differences online, such as placement and curation and the medium itself.

This study will not look at semiotic effects, which also could influence ratings of credibility. This study will not explore other aspects of interactivity, such as the reader’s new ability to instantly and independently investigate the other work of the reporter and

the histories of the sources involved or quoted in the article. Readers online can also at times compare an article to coverage from rival news outlets.

This study will not consider effects of credibility of negative or positive comments that other readers share beneath a news article, though this is a fertile area for study based on past work by others. Finally, this study will not evaluate reader responses according to pre-existing political or personal characteristics of the reader.

## RESULTS

### **Reporter Commented and Reporter Did Not Comment**

In this study, the three hypotheses predicted relationships between the manipulation and ratings of credibility. There was one independent variable, the presence or absence of reporter comments. The hypotheses were tested with an independent samples t-test.

The first hypothesis predicted that people who read articles where the reporter participates in the comments will report higher levels of credibility in the reporter than people who read articles without reporter comments. Participants who read articles with reporter comments provided higher average credibility ratings ( $M=5.27$ ,  $SD=.78$ ) than those who read articles without reporter comments ( $M=5.21$ ,  $SD=.84$ ); [ $t(45) = .233$ ,  $p = .817$ ]. But the effect of the manipulation was not significant ( $p>.05$ ). This hypothesis was not supported.

The second hypothesis predicted people who read articles where the reporter participates in the comments will report higher levels of credibility in regard to the article itself than people who read articles without reporter comments. Participants who read articles with reporter comments ( $M=5.40$ ,  $SD=.92$ ) recorded credibility ratings little different than those who read articles without reporter comments ( $M=5.22$ ,  $SD=.94$ ); [ $t(45) = .643$ ,  $p = .524$ ]. The effect of the manipulation was not significant ( $p>.05$ ). This hypothesis was not supported ( $p>.05$ ).

The third hypothesis predicted that people who read articles where the reporter participates in the comments will report higher levels of credibility in regard to the news

organization. Participants who read articles with reporter comments ( $M=5.26$ ,  $SD=.93$ ) reported credibility ratings similar to those who read articles without reporter comments ( $M=5.17$ ,  $SD=1.05$ ); [ $t(45) = .294$ ,  $p = .770$ ]. The result was not significant ( $p>.05$ ). This hypothesis was not supported ( $p>.05$ ).

Additional analysis of moderating effects showed no significant influence from demographic factors of gender, median age, or news consumption habits. Participants ranged in age from 22- to 61-years-old. The median age of participants was 27. An independent 2 (manipulation) by 2 (age) ANOVA showed no significant interactive effects for median age and experimental condition on credibility ratings by article [ $F(1,33) = .456$ ,  $p>.05$ ], by reporter [ $F(1,33) = .001$ ,  $p>.05$ ], and by news organization [ $F(1,33) = .038$ ,  $p>.05$ ]. An independent 2 (manipulation) by 2 (gender) ANOVA found gender was not significant as an interactive factor. Participants were also asked how they consumed news, and participants were sorted into those who get news from a printed newspaper and those who do not. An independent 2 (manipulation) by 2 (print consumption) ANOVA also yielded no significant effects. Newspaper reading itself was not a significant predictor of credibility ratings and did not show a significant interaction on the manipulation.

## DISCUSSION

This study attempted to examine the relationship between a reporter's participation in online comments and audience perceptions of credibility. This new relationship—at times immediate and at times personal—marks an important development in communication between traditional newspaper reporters and their rapidly growing digital audience. The researcher expected that greater awareness of the presence of the reporter would heighten the sense of co-presence for readers and increase perceptions of credibility for the news product. While the results indicate that readers were aware of the presence of the reporter, the effects on credibility were not significant.

The study employed a multi-dimensional construct of credibility. The study collected and explored credibility ratings for online news articles, for the reporter and for the news organization. None were significantly influenced by the experimental manipulation. This is, in and of itself, an interesting result, given changes in newspaper practices and a recent emphasis in some newspaper chains on having reporters engage readers in the comment sections that frequently follow online newspaper articles. For example, *The Oregonian* in Portland, Oregon, this year required reporters to post the first comment on their stories to initiate the interaction with the readers (Chittum, 2014.) These practices are being employed with little inherent understanding of the ramifications for credibility and audience perceptions.

These findings would seem to indicate that such policies are without basis, at least in terms of maintaining credibility during the digital migration. In short, readers noticed that the reporter had responded to comments, but they seem uninfluenced in regard to

ratings of the individual reporter, article, or organization. Looking more specifically at credibility scores, the study shows that the median for all three credibility factors was consistently higher in the experimental condition. Although none of the findings were significant, perhaps there is room for further study given the uniformity of the higher median ratings. The results are summarized in Table 1.

An additional examination of possible moderating demographic effects did reveal a significant effect for news credibility based on age. This was not seen at the median age. An independent 2 (manipulation) by 2 (age) ANOVA showed no significant interactive effects for median age and experimental condition on credibility by article, organization, or reporter. But when the participants were divided at 35 and above, age alone was a significant predictor of credibility regardless of experimental condition. This yielded significant variation in credibility ratings of the reporter, but not for the article or organization. Participants who were under 35 ( $M=5.10$ ,  $SD=.98$ ) recorded lower credibility ratings for the reporter than their more senior counterparts ( $M=5.74$ ,  $SD=.78$ ); [ $t(33) = -1.97$ ,  $p = .05$ ]. This was significant. Participants who were under 35 ( $M=5.09$ ,  $SD=1.09$ ) also recorded lower credibility ratings for the news organization than did participants 35 and over ( $M=5.60$ ,  $SD=.73$ ); [ $t(33) = -1.46$ ,  $p = .155$ ]. Participants who were under 35 ( $M=5.09$ ,  $SD=.90$ ) provided lower average ratings in regard to the article when compared to those 35 and over ( $M=5.49$ ,  $SD=.64$ ); [ $t(33) = -1.36$ ,  $p = .184$ ]. But the variation in ratings due to age was not significant for the article nor the organization. The sample was relatively small, as 12 of the 47 participants did not fill in their age and were not included in this secondary analysis. The interactive effects of age, even when divided at 35, did not lead to a significant result for the experimental condition.

This finding could represent an effect carried over from those who “grew up reading a newspaper.” Or it could simply be that as individuals age they begin to attribute more credibility to mainstream news outlets. Several studies have found credibility linked to demographics and other pre-existing factors. For example, Kim and Johnson, looking at credibility ratings during a 2004 election in Korea, found that pre-existing reliance on both online and traditional media to be the foremost predictors of credibility for online content (Kim & Johnson, 2009). Some have found that the more an audience uses a particular medium, or the more they are interested in the content delivered there, the more they come to perceive it as a credible source of accurate information (Sundar & Stavrositu, 2006; Armstrong & Collins, 2009). Although the moderating effects based on the median age were not significant for this study, it would seem to indicate that future research on interactivity and credibility should control for age of participants.

There were no significant moderating effects related to gender. And more interestingly, there were no significant effects related to whether participants reported regularly reading print newspapers.

This work appears consistent with some recent findings. Building on media equation theory (Reeves & Nass, 1996), researchers in 2012 expected to find that a visible reporter in video news clips would increase credibility perceptions, but they did not. They found no significant effects on credibility despite higher ratings of social presence and co-orientation (Meyer et al., 2012). Meyer, Marchionni and Thorson (2010) have found co-orientation, or the perceived similarity in ideas, leads to higher ratings of credibility for both traditional online news stories and blogs. However, they found no

significant effects on credibility ratings due to social presence outside of ratings for blogs.

The social presence variable was a major predictor of expertise and credibility only in the blog condition. For the straight, collaborative, and opinionated news conditions, social presence barely registered, which suggests that allowing reporters to share their voice, personality, or views does little to encourage readers to see them as credible.

The comments employed in this study were incidental, lacking in coherent or even identifiable political or controversial viewpoints to allow for measures of co-orientation. Reporters were merely present, allowing for attention to the source. Perhaps social presence, or the mere perception of the humanness of the source, does not influence credibility for news stories, at least not to the degree that co-orientation does. But again, this warrants further study.

However, in a later study, Marchionni and Thorson looked at hostile media effects in regard to newspapers and reporter blogs. They found that pre-existing personal biases did not lead to higher credibility ratings for blogs over traditional news stories, not even when the blog matched the readers own viewpoint. They did find that readers provided higher measures of social presence and co-orientation for blogs, where reporters wrote in a more natural voice and recounted personal observations. Yet the same participants still gave higher measures of credibility for the traditional news stories. Marchionni and Thorson (2014) wrote:

Our findings suggest readers definitely notice the person behind the blogs, as evident in social presence scores. But readers appear to still find news stories more trustworthy. Newspaper managers' reluctance to let reporters blog may have been sound.

While not exactly blogging, reporter participation in comments also relies on the same natural voice and personal observations that Marchionni and Thorson found raised social presence without raising credibility. Newspapers are still adapting to the demands of the digital audience. Some chains have explored other strategies, eliminating comments, curbing anonymous comments, and placing content behind paywalls. But just this year the Gannett newspaper chain began to follow the practices of the Newhouse chain in terms of digital emphasis, which includes an emphasis on reporter comments (Hochberg, 2014). Is this a wise use of journalists' limited time? This study finds no negative effects on credibility ratings. Instead, it's as though reporter interactions are of no consequence when it comes to evaluating news.

There may be other benefits, aside from influences on credibility, of interacting with readers in comments. This new practice could increase commenting itself, generating more activity by readers. It could bring readers back more often, generating more views. These are areas that could be worth future study. With regard to the topic at hand, this study would need to be replicated in a larger format, with more participants before drawing influential conclusions. There were other limitations. This study could also be replicated in a within-group design to strengthen the effects, using participants who are relatively uniform in age.

Perhaps most importantly, this study used a one-way measure of social presence, in that readers were aware of the presence of the reporter. This is representative of the vast majority of readers online. However, there may be more complex psychological mechanisms at play when the reader is the one whose comment is responded to, meaning the reader and the source have exchanged messages and both sides have demonstrated awareness of social presence. This could represent a higher rung on the social presence ladder. Researchers have posited three dimensions of social presence, including co-presence, psychological involvement, and behavioral engagement. Co-presence is defined as the feeling of existing with another individual; psychological involvement involves mutual attention and empathy; and behavioral engagement includes interaction (Biocca et al., 2001). Other researchers divided social presence into source attention, co-presence, and mutual awareness (Meyer et al. 2010; Meyer & Lohner, 2012). In each case, the definitions sort social presence by degree of involvement or participation on the part of the person receiving the message. It is possible that this experiment engaged only the most passive dimensions of social presence, those involving mere attention to or awareness of the source, while credibility could be affected by more interactive elements of social presence, such as psychological involvement. Meyer (2012) defines this as the feeling of being known by another. This would also be an area for future study, building on past work in social presence theory and the recent changes in online content delivery.

## **Conclusion**

This study attempted to build on past work on credibility by showing that credibility could be influenced by increased social presence as represented by asynchronous, conversational exchanges online with a reporter. In this study, the effects

did not substantiate this prediction. But interactivity remains a new and distinct facet of digital journalism. In the film “Absence of Malice,” Paul Newman plays the subject of fallacious newspaper story (Pollack, 1981). The film was written by Kurt Luedtke, who had earlier served as executive editor of the Detroit Free-Press. Newman’s character enters a buzzing newsroom to speak to the reporter who had made an error affecting his reputation. She fetches her editors, and they bring their lawyer into a conference room. No conversation nor interaction is possible with the reporter. Later, a friend asks Newman’s character if he had attempted to set the record straight. “Did you ever try to talk to a paper?” he answers.

This circumstance has changed entirely, and even now editors and reporters are making adjustments and issuing directives based on little more than gut instinct on how to handle online communications. The effects of the digital migration on the relationship between readers and reporters, as well as on credibility perceptions and related communication effects, remain worthy of continued examination.

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## APPENDIX 1: DESCRIPTIVE STATISTICS

*TABLE 2: Descriptive Statistics*

	<u>Reporter Commented</u>		<u>Reporter did not comment</u>	
	M	SD	M	SD
Credibility by article	5.27	.78	5.21	.83
Credibility by reporter	5.40	.91	5.22	.94
Credibility by organization	5.26	.93	5.17	1.05

## APPENDIX 2: REGRESSION TABLE

**TABLE 3: Regression**

	Df	<i>T</i>	Sig.
Credibility by article	45	.233	.817
Credibility by reporter	45	.643	.524
Credibility by organization	45	.294	.770

## APPENDIX 3: SAMPLE QUESTIONNAIRE

### Questionnaire about reading news online

Hello. Please take a few minutes to answer the following questions. All of your information will be both anonymous and confidential.

#### News content

*Please take a moment to rate the news coverage you have just encountered. Mark the number that best represents your general impressions of the online article. The number closest to a word indicates the strongest agreement.*

1) I find the news and information in this newspaper article to be:

Thorough	1	2	3	4	5	6	7	Incomplete
Inaccurate	1	2	3	4	5	6	7	Accurate
Factual	1	2	3	4	5	6	7	Not true
Biased	1	2	3	4	5	6	7	Balanced
Believable	1	2	3	4	5	6	7	Not believable

2) Did you like or dislike this news story?

Like	1	2	3	4	5	6	7	Dislike
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3) What did you think of this reporter?

Like	1	2	3	4	5	6	7	Dislike
Biased	1	2	3	4	5	6	7	Balanced

4) How would rate this reporter?

Thorough	1	2	3	4	5	6	7	Incomplete
Inaccurate	1	2	3	4	5	6	7	Accurate
Factual	1	2	3	4	5	6	7	Not true
Believable	1	2	3	4	5	6	7	Not believable
Untrustworthy	1	2	3	4	5	6	7	Trustworthy

5) How would you rate this news organization?

Like	1	2	3	4	5	6	7	Dislike
Thorough	1	2	3	4	5	6	7	Incomplete
Inaccurate	1	2	3	4	5	6	7	Accurate
Factual	1	2	3	4	5	6	7	Not true
Biased	1	2	3	4	5	6	7	Balanced
Believable	1	2	3	4	5	6	7	Not believable
Untrustworthy	1	2	3	4	5	6	7	Trustworthy

6) Readers commented on this story:

Agree	1	2	3	4	5	6	7	Disagree
-------	---	---	---	---	---	---	---	----------

7) The reporter commented on this story:

Agree	1	2	3	4	5	6	7	Disagree
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### **Final questionnaire**

*After completing the three articles and questionnaires, please take a moment to answer the following questions about the ways you encounter news coverage.*

1) On a typical day, do you access the Internet?

- Yes
- No

2) Do you get news or information from the website of a newspaper?

- Yes
- No

*\* If your answer was no, please skip to question 4. If yes, please continue.*

3) How often do you read news online?

- Daily
- Weekly
- Occasionally
- Rarely
- Never

4) Do you get news and information from a print version of a newspaper?

- Yes
- No

*\* If your answer was no, please proceed to question 7. If yes, please continue.*

5) How often do you get news and information from the print version of a newspaper?

- Daily
- Weekly
- Occasionally
- Rarely
- Never

6) How old are you? \_\_\_\_\_

7) What is your college major? \_\_\_\_\_

**You have completed the survey. Thank you for your time and participation!**