

Audience-Aware Credibility: From Understanding Audience to Establishing Credible Blogs

Soo Young Rieh, Grace YoungJoo Jeon, Ji Yeon Yang, and Clifford Lampe

School of Information, University of Michigan, Ann Arbor, MI 48109
{rieh, yjeon, jiyeon, cacl}@umich.edu

Abstract

This study examines how bloggers establish and enhance the credibility of their blogs through a series of blogging practices. Based on an analysis of interviews with 22 independent bloggers who blog on a range of topics, we present *audience-aware credibility* as a theoretical construct. Audience-aware credibility is defined as how bloggers signal their credibility based on who they think their audience is and how they provide value to that perceived audience. The analysis of bloggers' credibility constructs, conceptualizations of audience, and perceived blog value identified four types of bloggers who constructed audience-aware credibility in distinctive ways: Community Builder, Expertise Provider, Topic Synthesizer, and Information Filterer. We then report on these bloggers' blogging practices for establishing credibility and strategies for interacting with their audience to enhance credibility. The contributions of this study are to expand credibility constructs for social media research and to demonstrate the role of credibility perceptions in content contributors' online activities. The findings reveal that a multi-dimensional construct of audience-aware credibility serves as a driving factor influencing and shaping blogging practices of all four types of bloggers.

Introduction

Bloggers make significant contributions to the ecology of social media, informing audiences about particular topics of interest and offering alternative perspectives from mainstream media on a regular basis. In the current social media environment where an audience has a wide choice of online information they could consume, bloggers encounter two important challenges: 1) attracting an audience's attention by offering a distinct value in their blog, and 2) maintaining the audience by providing *credible* information. Although blogs are a common form of social media, used by 32% of Internet users (Zickuhr 2010), a poten-

tial reader of blogs may mistrust blogs in general due to generic doubts about user-generated content (Kittur, Suh, and Chi 2008; Yang et al. 2013), or specific blogs given the heterogeneity of quality in that genre. Therefore, bloggers who want to influence other people may adopt blogging practices that help establish and enhance their blog's credibility.

Given the heterogeneity of both bloggers and audiences, there are various kinds of blogging practices that bloggers might find to be the most salient to meet their own goals and motivations (St. Jean et al. 2011). Practices for establishing credible blogs could be influenced by at least two factors: bloggers' conceptualization of audience and the value that bloggers believe they offer to that perceived audience. When bloggers do not have clear ideas of who their audience is, they develop an "imagined audience" which may influence their blogging practices (Litt 2012). How the blogger conceives of this "imagined audience" would then influence the value they believe they provide to that audience.

This study contributes to understanding social media by examining the intersection between blogging practices and the strategies that bloggers adopt in order to establish and enhance the credibility of their blogs. Previous studies on blogs have provided insights into blogging practices and bloggers' motivations for blogging (Gill, Nowson, and Oberlander 2009; Lenhart and Fox 2006; Nardi et al. 2004). Blogging has long been understood as a social activity (Nardi, Schiano, and Gumbrecht 2004) because blog audiences provide consistent readership, a sense of community, and a feeling of connectedness (Baumer, Sueyoshi, and Tomlinson 2008). Bloggers consider audience as they write blogs, and their consciousness of audience is central to how they enact their blogging practices (Nardi, Schiano, and Gumbrecht 2004). This study addresses how bloggers' perception of their audience influences their idea of the value their blogs provide to their readers.

In addition, this study contributes to the credibility research community by introducing a new construct of *audi-*

ence-aware credibility in online production. In this study, audience-aware credibility is defined as how bloggers signal their credibility based on who they think their audience is and how the value the blog provides to them. In other words, audience-aware credibility is the practice bloggers engage in to provide value to who they imagine to be their audience, regardless of whether or not they actually know much about that audience. The majority of previous studies investigating the concept of credibility in blogs were framed from the viewpoint of blog consumers. This study focuses on examining bloggers' perceptions and practices related to their own blogs in the context of the value they believe they provide to an audience. Understanding bloggers' practices for creating credible blogs is an important research problem because bloggers make significant contributions to the social media ecology as influential leaders of the online world (Huang et al. 2007) and they are avid creators of user-generated content (Lenhart and Fox 2006). Therefore, they demonstrate lead examples of more general types of contribution in social media.

The primary purpose of this study is to characterize the constructs of audience-aware credibility identified in bloggers and to reveal a set of strategies that bloggers take. Specifically, this study addresses the following research questions:

1. To what extent do bloggers' conceptualizations of their audience influence how they see themselves providing value to that audience?
2. What kinds of blogging practices do bloggers adopt through interaction with their audience in order to establish and enhance the credibility of their blog?
3. What are the multiple dimensions of audience-aware credibility constructs that emerge depending on the types of bloggers?

Related Work

To understand how bloggers use a nuanced perspective of credibility to enhance the value they hope their audience receives from their blog, we integrate several different bodies of previous work. First, we discuss some high-level findings about blogging as a general practice. Next, we describe how the concept of credibility has been treated by different research communities, outlining a nuanced set of constructs under the aegis of credibility. Finally we describe some previous findings on how blogs have been perceived as credible by readers.

Blogging

The early days of blog research focused on genre analysis of blogs through content analysis of large samples of blogs (Blood 2002; Herring et al. 2004). The focus then shifted to behavioral aspects of blogging. Nardi et al. (2004) found

that blogging is a social activity, as blogger and audience engage in social communication through the writing and reading of blogs. Kumar et al.'s study (2004) on blogspace reinforced this view of the social nature of blogging, indicating that there was rapid growth not only in the number of communities in blogspace but also in community-level interactions.

Scholars also have identified a wide range of motivations for blogging, both intrinsic and extrinsic. For example, Nardi et al. (2004) found five major motivations for blogging, including documenting one's life, providing commentary and opinions, expressing deeply felt emotions, articulating ideas through writing, and forming and maintaining community forums. Lenhart and Fox's (2006) survey of bloggers revealed that bloggers were motivated to keep blogging in order to document their personal experiences or share them with others, and to influence the way other people think.

How bloggers conceive of their audience has been found to play an important role in the social activity of blogging. Bloggers seemed to gain momentum when they realized others were actually reading their posts (Nardi, Schiano, and Gumbrecht 2004). In addition, bloggers who become aware of their audience are influenced by audience attention, interests, feedback, reactions, and feelings when they choose what to write about (Nardi, Schiano, and Gumbrecht 2004). Blog readers also seem to be aware of this dynamic, as they were found to feel obliged to read blog postings or to make a meaningful contribution through comments (Baumer, Sueyoshi, and Tomlinson 2008).

The Construct of Credibility

Credibility has been studied across several academic disciplines, including communication, information science, and human computer interaction (HCI). However, the approaches taken to study credibility in multiple fields are fundamentally different. In the field of communication, mass media researchers and practitioners who have examined credibility were primarily interested in finding out about people's choices of media such as television, newspapers, magazines, online news, blogs, and other media (Metzger et al. 2003). The assumption is that if people perceive that the content and sources from a particular media are accurate, fair, unbiased, objective, and informative, they are more likely to choose and use such media (Johnson and Kaye 2000). In the field of information science, credibility research has been conducted in the context of information seeking and retrieval. Therefore, credibility is often considered a core criterion for people to rely on when they try to reduce the amount of information they consume by selecting more useful, accurate, current, objective, complete, and reliable information (Hillgoss and Rieh 2008). In the HCI community, the agenda of credibility re-

search has evolved over the years. Earlier work done by Fogg and his colleagues (2001) focused on identifying key elements that would improve and boost Web credibility perceptions so that designers could create more credible websites. More recently, the scope of credibility research in HCI has expanded to studying credibility perceptions of social media such as Twitter (Morris et al. 2012), blogs (Baumer, Sueyoshi, and Tomlinson 2008), and Wikipedia (Kittur, Suh, and Chi 2008). The primary purpose of these recent studies is to develop additional system features in order to assist the credibility assessment of people in social media.

Despite the different purposes of and approaches to credibility research, common findings have emerged. Credibility perceptions result from assessing multiple dimensions of the credibility construct simultaneously (Hilligoss and Rieh 2008). Trustworthiness and expertise have long been known to be two key dimensions of credibility perception (Fogg and Tseng 1999): Trustworthiness captures perceived “goodness and morality of the source” (p. 123), while the dimension of expertise reflects perceived “knowledge, skill, and experience of source” (p. 124). Reviewing credibility research identified three other dimensions of credibility constructs: believability, information quality, and affective value (Hilligoss and Rieh 2008; St Jean et al. 2011). Believability refers to people’s confidence in the truth of information without having some form of absolute proof. Accuracy, reliability, and truthfulness are related concepts influencing believability. Information quality includes the concepts of completeness, objectivity, and usefulness of information contributing to the dimension of information quality. Affective value relates to users’ impressions of and general feelings about information. Appealing visual aesthetics, as well as other design factors, may influence the affective value people place on the information being assessed.

How and why people are consuming information may change how salient each dimension of credibility becomes. For instance, Rieh et al. (2010) found that when people used social media, authoritativeness and expertise of the author were considered to be less important, and truthfulness, trustworthiness, accuracy, and reliability were perceived to be more important constructs.

The perception of credibility is a personal judgment of the consumer of information. It does not reside objectively in an information object or a person (Fogg et al. 2001). Credibility judgment is a highly subjective assessment process which reflects individuals’ knowledge, experience, and expertise (Rieh et al. 2010). When individuals make credibility assessments, they consider who will be impacted by the information they select and use (Hilligoss and Rieh 2008). Their consciousness of the potential audience of information use influences the extent to which people

take time and make effortful credibility judgments (Hilligoss and Rieh 2008).

How Blog Readers Assess Credibility

Most previous research on blog credibility has focused on how *readers* make judgments about the credibility of a blog. A number of factors influencing the credibility of blogs and bloggers have been identified.

First, the motivations of blog readers matter in how they assess the credibility of what they read. Using experimental methods, Armstrong and McAdams (2009) also found that users’ motivations influenced their credibility perceptions of blogs in that high information seekers found blogs to be more credible than did low information seekers. Second, blog credibility is related to how reliant the reader is on that blog for information. Johnson et al. (2007) found that the more users relied on blogs for political information, the more they considered them to be credible. Third, presentation and stylistic quality of blogs influenced blog credibility than the authority of bloggers. Yang (2007) studied Taiwanese blog readers and found that “Stylistic Quality Factor”, such as languages used and misspellings, were predictors of the credibility of news-related blogs while “Presenter/Source Factors” (e.g., blogs endorsed by experts; blogs endorsed by someone known) were not. Greenberg, Yaari, and Bar-Ilan (2013) also found that the perceived credibility of a blog was not based on the quality of content but rather based on the presentation of the post. Fourth, a blogger’s personal attributes appear to have little impact on a blog reader’s perception of credibility. According to Chesney and Su (2010), there was no difference in perceived credibility between when the bloggers were identifiable and when they were anonymous. In a study of blog use to obtain medical information, Greenberg, Yaari, and Bar-Ilan (2013) found no difference in the perceived credibility of blogs depending on whether a blog was created by an individual, expert, or corporation.

In this study, we move the focus from how consumers assess the credibility of blogs to how the producers of that content perceive and shape the ways in which they signal credibility to those consumers. We are particularly concerned with how bloggers perceive the blog value they provide to their audience and how bloggers’ perceptions of blog value and of their audience shape strategies for establishing and enhancing credibility in their blogs.

Methods

Recruitment

We used purposive sampling to ensure the inclusion of bloggers (1) who create and manage their blogs independently, not being affiliated with a particular organiza-

tion; and (2) who blog on topics of their expertise as a public endeavor rather than as a personal pursuit. We chose to recruit independent bloggers because these bloggers were expected to make autonomous decisions in terms of what to write, what information to use, how to present content, and to what extent they interact with an audience. As we also decided to recruit active bloggers, we reviewed each potential participant's blog, and contacted only bloggers who updated their blog at least once a month.

A variety of sources were used to identify blog sites and potential interview participants that met our recruitment criteria. We collected a set of blog award lists and blog directories available on the web (e.g., Technorati Top 100 Blogs, The Bloggies Annual Weblog Awards, The Edublog Awards, TIME The Best Blogs, and Bloggeries Blog Directory). In addition, we used blog directories available on blog hosting platforms such as WordPress and education-related listservs.

We also employed snowball sampling, asking each interview participant to recommend other bloggers they knew. Of 76 bloggers contacted, 22 bloggers responded to our invitation, for a response rate of 29%. Monetary compensation was given to each participant.

Data Collection

Interviews were conducted between June and August 2012 using various methods including face-to-face, phone, Skype, and Google Voice. Interviews took 44 minutes on average, ranging from 22 minutes to 80 minutes. All interviews were audio-recorded and then transcribed for data analysis purposes. Prior to each interview, an interviewer spent about 30-60 minutes reviewing the blog and reading recent posts in order to become familiar with its content. A questionnaire was used to capture background information about both the blogger and the blog.

Data Analysis

Through a series of team meetings, we developed a coding scheme for data analysis. The initial set of coding categories was drawn deductively from the interview protocol, as well as inductively through iterative analyses of the interview transcripts. The development of a coding scheme was iterative as we went through multiple revisions until all four authors reached consensus. To verify the reliability of our coding scheme, three transcripts were selected at random and were each coded by two coders independently. Instead of simply calculating inter-coder reliability, we revised the coding scheme until both coders agreed that the coding scheme represented all of the core themes emerging from the transcripts and each code sufficient examples. The following 12 coding categories were eventually identified: motivation to start a blog, motivation to continue a blog, blogging behavior, understanding audience, methods

used to understand audience, channels for reaching different audience, value of blog to audience, conception of credibility, credibility strategies in information gathering, credibility strategies in content creation, credibility strategies in post-production activities, and credibility as feedback loop.

Interview transcripts were imported into NVivo 9, qualitative data analysis software. Two of the four authors of this paper then analyzed the transcripts using a content analysis technique. Each coder examined 11 transcripts by reading line by line, and assigned one or multiple coding categories to the text whenever we found appropriate categories for phrases or sentences.

Characteristics of Participants

Participants' (N=22) experience as bloggers showed wide variation, ranging from less than 1 year to 13 years with the average being 5 years. A majority of the participants (16 participants, 73%) were hobby bloggers who made no income from blogging, while 6 (27%) were professional bloggers who reported that blogging was their source of income.

Of our 22 interview participants, 13 (59%) were male, and 9 (41%) were female. The participants ranged in age from 25 to 68, with a mean age of 48. They had a high level of education, with 15 participants (68%) having a graduate or professional degree, 6 participants (27%) having college degree, and 1 participant (5%) having some college education. Participants represented various types of occupations including manager, lawyer, educator, librarian, entrepreneur, student, writer, publisher, artist, and blogger.

Findings

Awareness of Audience and Perceived Blog Value

Bloggers in our study reported diverse ways of understanding the audience of their blog. They also described explicitly how their conceptualization of who their audience was and what that audience wanted to read influenced the ways in which they constructed the *value* that their blog offered to that audience. Bloggers discussed the value of their blog with respect to the contribution a blog made to its users.

The analysis of interview transcripts about the value of their blog identified four distinct types of bloggers: Community Builder, Expertise Provider, Topic Synthesizer, and Information Filterer (see Table 1). These four categories were based on the perceptions of value and the conceptualizations of an audience identified by bloggers who participated in our study rather than based on the analysis of the blog content itself.

- *Community Builders* believe that the value of their blog is in offering an open space for audience participation and engagement.
- *Expertise Providers* conceptualize their audience with respect to occupation or social role and see the value of their blog as offering a venue to inform and educate such an audience by providing in-depth and detailed information about certain issues.
- *Topic Synthesizers* conceptualize their audience more broadly based on geographic areas, political stance, and demographic characteristics, and recognize their blog's value in providing balanced viewpoints by analyzing and synthesizing content from multiple perspectives.
- *Information Filterers* perceive the value of their blog to lie in filtering, compiling, and organizing content that they collect from a wide range of sources.

This typology focuses on how the blogger perceives the way they provide value and credible information to their imagined audience. Like any typology, it is a guide to practices and characteristics rather than an exclusive description.

Community Builder

Community Builders see the value of their blog in offering an online space for people to interact, rather than solely in providing content about the areas of their expertise. Community Builders welcomed and encouraged their readers to leave comments on their blog and actively participated in interactions with their readers. They saw their contribution to their audience as asking “lingering questions and throw[ing] them out into the world about topics that are really engaging” (S04). These bloggers consistently mentioned that “readers would be the largest motivator [to continue blogging]” (S04). S05 described her primary motivation for blogging as to be able to help other journalists by providing a space to “discuss things that sometimes you don’t get a chance to discuss in a newsroom setting.” To Community Builders, readers are a critical part of their blogging practices. For instance, S03 stated that “[readers’] comments were more interesting than the posting.” Overall, these bloggers seemed to believe the success of a blog was dependent on how successfully it engaged with an audience.

These Community Builders’ conceptualization of the audience tends to be based on wide and broad readership. S03, who blogs about science, responded that his blog audience includes government researchers, post-docs, graduate students “from all over the world,” people in the publishing industry, and journalists. S04, who blogs about education and technology, believes that her blog audience has been “spreading... internationally in weird pockets of the world, which has been fun.” S05 also explained that the audience of his blog “opens up a somewhat broader audi-

ence.” He then added, “I don’t know to what extent any of those people are actually coming in.”

The Community Builders are interested in growing their audience. S04 expressed her desire to “reach out” to an even wider audience with her blog. S05 would promote his blog to Facebook friends and Twitter by inserting his blog into a discussion on social media to reach a broader audience.

Expertise Provider

Expertise Providers were confident that they have sufficient expertise to provide educational value to the readers of their blog, as the topic was usually tied to their professional experience. They presented content based on critical analyses of other’s work using their expertise. S01’s blog dealt with advertising issues, and S01 perceived that was to educate consumers to be careful and be aware of tricks. S02, who maintained a blog about education and technology, also expressed a strong intention to educate readers. S07, who wrote a blog about science, deliberately selected certain topics where he found inaccurate or untrustworthy information. He viewed his job as “having some knowledge and expertise to point out why it was not trustworthy.” S13, who blogs about educational policy, viewed his blogging as an act of trying to persuade readers about a point of view that he was asserting. S13, therefore, chose “words that are colorful, precisely for the goal of trying to engage readers and to be more persuasive by doing so.”

Expertise Providers researched other people’s work critically based on their own expertise, and presented content based on such critical analysis. These bloggers seemed to have relatively clear ideas about who their audience was, with a somewhat narrow scope. For instance, S07 described his audience as people who were in the “online science community” as graduate students, post docs, or faculty members. S01, whose blog dealt with consumer protection, said that his audience was within a range of “35 or 45 up with a significant chunk 65 or older” who have strong interests in this issue. It appeared that Expertise Providers liked to have a group of people that was well-defined by occupation, social role, or interest group and tended to develop blogging practices serving a specific group of people who share similar backgrounds and interests.

Topic Synthesizer

Topic Synthesizers perceive their blog’s value to be in providing online content synthesized from multiple viewpoints. For instance, S12 said that his decision to post was based on what he believed was “best for the community” rather than his own opinions. S12, who considered herself a “thought leader” in the community, asked people to send her information about their problems and synthesized them for a blog story. S20 responded that she tried to “fill the framework for a whole new kind communication” by figuring out ways of evaluating online content in terms of

“what’s good and what’s less good and what makes something really worthwhile and what doesn’t.”

Topic Synthesizers demonstrated that they could describe their audience based on geographical areas, political stance, or demographic characteristics. Their descriptions of an audience seemed to be more loosely and broadly defined than those of Expertise Providers, but more clearly defined than those of Community Builders. S15 was one of several bloggers who kept track of the geographical locations of her blog audience. S15 maintained a local news blog, and stated that her audience was either people throughout the United States who traveled to the area and the people who lived there. S08 paid attention to countries of readers based on their IP addresses. In the case of S16, who had a site about political news, the audience was characterized as “being conservative politically.” S18, a local news blogger, had targeted her audience explicitly for her blog site. She described her audience as “influencers” who were judges, lawyers, the people who run the state, and people who had influence on the community.

Information Filterer

Information Filterers are interested in maintaining broad topical areas or news, and they are least likely to express their opinions as they try to be as objective as possible. Their attitude was that “I am just telling you what they said. I am not telling you that I think it’s right. I just want you to know what people are saying” (S06). Therefore, to S06, his blog was “just being a place that people can look to find out what other people are saying and not necessarily what I’m saying.” Given this role, he was hesitant to “put a stamp on it” saying “this is true” for each link he provided. Another way to distinguish Information Filterers from other types of bloggers was that they minimized their writing on the blog. Instead of producing original content on a blog, Information Filterers pointed to other resources. S21 described his blog as “a Reader’s Digest.”

These Information Filterers had the least clear sense of who their audience was among the four blogger types. These bloggers often refer to their audience in terms of friends, family, and acquaintances. S10 and S19 assumed that their friends, Facebook friends, and Twitter followers were their audience. S06 said his blog audience was “a mixture of people I know and a lot of people I don’t know.” Because of relatively loosened conceptualizations of an audience, S10 did not “chase after an idea of what a group wants.” He let readers come to his blog.

The four types of bloggers are not necessarily set in stone for individual bloggers. In fact, it was found that most bloggers we interviewed began as Information Filterers, and later evolved into other types of practices as their conceptualizations of their audience changed. For instance,

when S16 first started blogging on politics, she was “just putting up interesting links.” However, as she gained more experience in blogging, her posts became more and more an expression of her political opinions. For many bloggers, as they interacted with their audience they refined the sense of how they could provide value to that audience, leading them to adopt new practices beyond posting links to other content. This means that bloggers’ blogging practices evolve over time, and it is plausible that bloggers could move from one type to another as their conceptualizations of audience becomes defined differently and their perception of blog value changes.

Blogging Practices for Establishing Credibility

In this section, we address a research question about what blogging practices bloggers adopt in order to signal the credibility of their blog during content creation. Some blogging practices for establishing credibility were more prominent in one type of bloggers than others.

There were at least three blogging practices that appeared to be common across different types of bloggers: transparency, design, and consistent postings. Transparency seemed to have two distinct meanings among bloggers who participated in our study. First, it represented honest disclosure in terms of who the bloggers were, what their affiliations were, and why they were posting content. To S20, transparency was “the number one rule of credibility.” S20 explicitly described how being transparent about the motives of a blog was related to the perception of credibility in the following quote: “So you have to be honest with yourself about what it is you’re doing and then just be honest about it. If you’re just trying to get hits, then, don’t pretend to be something more than that.” S11 also stated that in order to signal credibility in her blog, she tried to show that “there aren’t sort of any hidden relationships, particularly hidden financial relationships that people might think would sway me in certain directions or others.” The second meaning of transparency was to make modifications to blog posts in open ways. S15 described the concept of transparency with respect to correcting inaccurate information. When she found out that the information she posted was not accurate, rather than deleting the post, she believed it was important to let her readers know about the mistake. When a blogger tells readers directly and clearly about misinformation, readers are more likely to believe that he/she is “the best source of information” (S15). S18 said that if she happened to post content that she thought true but had not verified, she would add extra exposition to make it clear that she was not sure about it.

The design of the blog was an important factor in signaling credibility, mostly through visual aesthetics, for most of the bloggers we interviewed. S04 made it clear that “design is a huge factor for credibility.” S07 also thought that “look and feel” was important for credible blogs. He also believed that including pictures enhanced the credibility of the blog. S14 changed the background of his blog recently to make it “look cleaner.” The purpose of his design choice was that he wanted his readers to be “impressed by the way this blog looks before they are impressed by the way the words read.” Both S09 and S20 pointed out that design and content should match. S09 explained that the designs of blogs should look different when one blog covered fashion news and another dealt with information about electrical engineering. S20 also pointed out that the design and the tone of the writing needed to match. For instance, if she decided to include graphics, the characteristics of the graphics had to fit what she was writing about. In her words: “You can really run down your credibility by being too cute and too fun and using too many different kinds of typefaces and I think also the illustrations that you pick all have to live up to the tone of what you’re writing.”

Across different blogger types, participants noted that consistent postings with a reasonable frequency would be likely to influence the reliability of a blog. There was no golden rule about what could be a “reasonable” frequency of posting. S12 believed that best bloggers needed to post at least three times a day. S09, however, said that posting needed to be done at least once a month. The key point here was to “post consistently,” which meant that a blogger needed to come up with a schedule and stick to it. S07 suggested a new post once a day or once a week. He be-

lieved that such a regular posting gave a sense of reliability to an audience, and such reliability perception would “do a lot to build your credibility” (S07).

We then found that there were some blogging strategies that were uniquely adopted by a particular type of bloggers than other types. For instance, Community Builders seemed to believe that completeness of a blog could be achieved by gathering the intelligence of readers who actually leave comments on the blog. Community Builders also mentioned that engagement with readers would make the readers feel that they could trust the information in the blog. Rather than waiting for an audience to come to their blog, some bloggers decided to be proactive in bringing readers to the blog. For instance, S04 sometimes went out to specific readers seeking feedback. S04 followed other bloggers who were “very big” and emailed them to ask for feedback on some areas she struggled with. S04 believed that displaying interactions with big name bloggers would make her blog more likely to be perceived as credible.

Expertise Providers’ primary strategy for establishing credibility was to write content with a narrow focus. Several Expertise Providers pointed out that having a narrow focus helped them to provide credible information with precision as they could write within a topical area in which they felt that they had expertise. The common practice among this type of bloggers was to focus on a particular subject that they knew well, and compile the data that backed up their explanations. S09 stated that when bloggers kept a narrow focus, they were “much more likely to be able to demonstrate some expertise” than if they wrote about a variety of different topics. S07 also characterized his blog as “a more focused, fine-tuned niche blog.” He

	Community Builder (N=3)	Expertise Provider (N=8)	Topic Synthesizer (N=7)	Information Filterer (N=4)	Common Characteristics
Perceived Blog Value	Offering an open space for audience participation	Serving as a venue to inform and educate people by providing details and depth about specific issues	Presenting opinions on certain issues by analyzing and synthesizing information from multiple sources	Filtering, compiling, and organizing online content collected from a wide range of sources	Starting as <i>Information Filterer</i> and moving to one of the other blogger types
Conceptualizations of Audience	Embracing a broadly and widely-defined audience	Having the clearest ideas about an audience defined by occupation, social role, or interest group	Perceiving an audience based on geographical areas, political stance, and demographic characteristics	Having no clear idea about an audience other than friends, family, and acquaintance	Being aware of their audience
Blogging Practices for Establishing Credibility	Inviting fellow bloggers to give feedback	Keeping narrow focus on content	Presenting multiple viewpoints	Linking to sources with short summaries	Being transparent; Matching design with content; Posting consistently
Interaction with Audience for Enhancing Credibility	Showing and explaining work processes; Responding to commenters	Monitoring readers’ comments; Moderating comments for quality control purposes	Having dialogue with commenters; Interacting with readers occasionally	Correcting errors based on feedback from readers	Receiving feedback and comments from readers

Table 1: Value, Conceptualization of Audience, and Practices for Credible Blogs

stated that “it can really help to pick a fairly narrow focus that nobody else is doing. And I think that’s another way that you can establish your credibility not sort of spreading it out all over the place.”

Topic Synthesizers attempted to create credible online content by making an effort to show multiple perspectives on a particular topic. Compared to Expertise Providers, Topic Synthesizers tended to cover broader and more diverse topics, often as news blogs. They seemed to believe that such credibility strategies helped their blog to be perceived to be fair. While covering the subject “a little more widely and an additional dimension” (S20), S20 consistently made sure that she relied on “multiple sources either to back up the argument or to expand it into a little more interest.” S15 also said that “if it’s a controversial issue, which I do occasionally cover, I try to present both sides of the issue.”

To establish credibility, Information Filterers made considerable effort to provide links to original sources thoroughly so that their blog would be perceived to be truthful. For instance, S19 made sure that she did not omit authoritative links, especially for those links that she did not agree with. In addition, these bloggers did not write extensively on their blogs. S21 explained that his role was to point to sources with very little description. Information Filterers’ practice was well summarized in S06’s quote: “You should not just summarize what anybody else said; you should point to it and use exact quotes.”

Across common practices of four types of bloggers and distinct practices identified in particular types of bloggers, we noted that blogging experiences and credibility concerns during content creation were related to each other. As bloggers gained extensive experience with their blogging, credibility became an increasingly important issue for them. S07, S09, S16, S19, and S21, who had more than 10 years of blogging experience, tended to take the credibility of their blog more seriously. This was due to the fact that they had established personal reputations around their blogs over the years, and they felt a social responsibility to their audience. Therefore, these experienced bloggers were more likely to recognize how their consistent postings of credible content accumulated and eventually contributed to developing the distinct value of their blog.

Interacting with an Audience to Enhance Credibility

Bloggers who participated in our study discussed extensively their activities after posting content in order to enhance the credibility of their blog. Post-production activities were often driven by the feedback and conversations they had with their readers. In fact, the majority of bloggers agreed that a blog needed to be socially interactive with an audience in order to be credible. One of the com-

mon blogging practices across different types of bloggers was to modify posts after they had been originally posted and to delete original content only rarely. The impetus to make changes in their original content was often initiated by a reader who pointed out errors such as a misspelled name or an incorrect fact. Or, readers would provide new information, and bloggers added that to the post. On the other hand, the extent of the activities a blogger engaged in to interact with an audience differed depending on the type of blogger.

Community Builders tended to get involved in the interaction with their audience most actively. S03 said that he wanted to show his work process clearly to an audience by explaining how he came to certain conclusions. He said that this kind of process gave him and his blog credibility. S03 also believed that “people are allowed to express their opinions but they are not allowed to state facts that aren’t true” on his blog (S03). He “looked very carefully at comments” and often responded to a commentator. S05 also “always responded” to a reader who asked a question, who suggested that he/she disagreed, or especially who “raised a question about credibility or veracity of it.”

Expertise Providers reported that they paid attention to comments from their readers, but rarely participated in the discussions with their readers. They often showed concerns about the quality of readers’ comments because it could hurt the credibility of their blogs if the comments were of poor quality. Therefore, Expertise Providers maintained the credibility of their blogs by monitoring readers’ comments and moderating the comments section. S01 made it clear that his blog was “not a forum” or “not a message board” or “not a conversation back and forth.” Therefore, S01 typically would not reply to a reader more than once, and he rarely reposted based on a conversation. Similarly, S22 said she seldom responded to readers’ comments due to lack of time although she knew that “in blogging you’re supposed to interact with our audience.”

Topic Synthesizers demonstrated a wide range of practices in interacting with an audience and managing comments for their blogs. Their general strategy of achieving credibility is to have an open communication venue in their blog. On the one hand, there was a blogger such as S14 who always tried to “spark dialogue” with commenters. S14 had been blogging for only two years. He reported that he “welcomes all sorts of comments because his readership isn’t that big right now.” S15 engaged in communicating with readers in extremely unusual cases such as when someone got angry with her postings and disputed them. Typically, Topic Synthesizers seemed to stand somewhere between these two cases.

In the case of Information Filterers, most of them did not actively engage with their audience except S10. This does not mean that Information Filterers did not make changes in their postings. They paid attention to feedback from

readers and corrected errors based on the feedback. S19's practice was that she would respond only if she thought there was something needed to be responded to. If people asked specific questions, she would "definitely" respond. To S10, one of the challenges with interacting with his audience was to set a "consistent tone" across his own postings and readers' comments. He said that he made an effort to keep a consistent tone in the posts because he noted that it influenced the tone of readers' comments as well. As long as his readers kept in sync with the tone he had established for comments, he did not mind disagreement. He stated that he "moderated" comments constantly and would sometimes delete some of them because people occasionally made a comment that was "just too uncivil."

The results from data analysis about credibility enhancing practices during post-production activities demonstrated that credibility is closely related to the dimension of time. It is not something that people can evaluate based on one post or one strategy, but rather is an iterative exchange between bloggers and their audience over a series of posts. As S12 put it, "credibility is built over time." Participants in our study discussed blogger reputation as well as blog credibility rather than describing credibility of individual blog posts. Credibility is an evolving and dynamic concept that needs to be established and enhanced through a series of blogging practices.

Discussion

Above, we described patterns that different types of bloggers adopted to provide value to their perceived audience, and how they adapted their credibility practices over time as they interpreted signals from their audience about how that value was being received. To explain these patterns, we introduced a concept of audience-aware credibility. Interviews with bloggers suggest that how they picture their audience, and why that audience is benefitting from reading the blog, shapes how they continue to provide blog value. We found that, across all four types of bloggers credibility practices involve three dimensions: transparency in the process of content creation, matching design with nature of content, and consistency in blogging frequency.

While the bloggers who participated in our study were cognizant of their audience, the extent to which audience-awareness influenced their credibility constructs differed depending on the four types of bloggers. To Community Builders, audience engagement was a core dimension of audience-aware credibility. Community Builders seemed to believe that the success of creating a credible blog was dependent on the extent to which they engaged with an audience directly. They made extensive efforts not only to interact with their current audience directly but also to expand their blog community. Among the four types of blog-

gers, Expertise Providers had the clearest conceptualizations of a blog audience, and they intended to influence a relatively narrowly-defined audience community by offering well-articulated blog content about issues and topics on which they already had expertise. For Expertise Providers, the most important aspect of audience-aware credibility was informativeness and level of detail. Topic Synthesizers showed a distinct audience-aware credibility construct by emphasizing the importance of being neutral and objective to maintain a credible blog. To achieve such objectivity, Topic Synthesizers adopted strategies of including multiple viewpoints on a topic and maintaining a balance of opinions, especially when dealing with controversial issues. Therefore, they are one of the most active blogger types, next to Community Builders, in terms of having open dialogue with commenters and accepting feedback from the audience for their postings. Even though Information Filterers had the least clear conceptualization of their audience, they had developed their own audience-aware credibility constructs. Information Filterers seemed to believe that their role as a blogger was moderating online content while not exposing their own personal stance on the issues. Therefore, they emphasized the importance of actively aggregating online content and expressed their belief that making sure they provided links to original sources along with their short descriptions for each link would help establish and enhance the credibility of their blog.

These differences highlight how the conception of who their audience is, and what value they derive from reading the blog can shape how blogger's try to provide that value. In each case, the bloggers were interpreting cues from their audience to inform how they expressed their expertise on the topic. This indicates that a recursive, iterative relationship between the blogger and their audience is at the core of credibility for blogs.

The findings from this study need to be interpreted with caution because there are at least three limitations that need to be acknowledged. First, this study is based on interviews with just 22 independent bloggers who were screened based on specific recruitment criteria we developed. Although the sample size was small, we were able to recruit bloggers who tended to make autonomous decisions in terms of what to write and how to present content. The goal of qualitative work like this is not to represent a population, but rather to illuminate principals embedded in individual respondents. The second limitation is also related to purposive sampling of participants, as we recruited bloggers who demonstrated evidence in their blogs that they blog as a public endeavor rather than as a personal pursuit. We then considered the blog as a genre of social media rather than journalism, as we focused on blogging as a series of online social activities which involve the audience. The third limitation is that the blog audience investigated in this paper is based on bloggers' "imagined audi-

ence” (Litt 2012) rather than the actual audience. Although there may be misalignment between the imagined audience and the actual audience, we did not include data about audience directly because the objective of this study was to investigate bloggers’ conceptions of audience and how those conceptions shape and influence their credibility-related blogging practices.

Conclusion

We are confident that this study makes several contributions to the field of social media by expanding the concept of credibility to consider the connection between bloggers and their audience. While it is not surprising that bloggers rely on iterative audience feedback to shape their credibility practices, it is notable that the extent of their conceptualization of audience is closely related to the kind of value bloggers are trying to offer. Although the four types of bloggers had different levels of understanding of their audience, they based their actions and decisions on the same fundamental construct of credibility, which we defined as audience-aware credibility. The empirical findings of this study reveal that a multi-dimensional construct of audience-aware credibility serves as a driving factor influencing and shaping blogging practices of all four types of bloggers.

Acknowledgements

Support for this project was provided by the John D. and Catherine T. MacArthur Foundation. We would like to thank Irina Zeylikovich, Anna Boot, and John Simpkins who provided assistance in recruiting bloggers and conducting interviews. We would also like to thank our study participants.

References

Armstrong, C. L. and McAdams, M. J. 2009. Blogs of Information: How Gender Cues and Individual Motivations Influence Perceptions of Credibility. *Journal of Computer-mediated Communication* 14: 435-456.

Baumer, E.; Sueyoshi, M.; and Tomlinson, B. 2008. Exploring the Role of the Reader in the Activity of Blogging. In *Proc. CHI*, 1111-1120. ACM Press.

Blood, R. 2002. *The Weblog Handbook; Practical Advice on Creating and Maintaining Your Blog*. Cambridge, Mass.: Perseus Publishing.

Chesney, T., and Su, D. K. 2010. The Impact of Anonymity on Weblog Credibility. *International Journal of Human-Computer Studies* 68: 710-718.

Fogg, B. J., and Tseng, H. 1999. The Elements of Computer Credibility. In *Proc. CHI*, 80-87. ACM Press.

Fogg, B. J.; Marshall, J.; Laraki, O.; Osipovich, A.; Varma, C.; Fang, N.; and Treinen, M. 2001. What Makes Web Sites Credible?: A Report on a Large Quantitative Study. In *Proc. CHI*, 61-68. ACM Press.

Gill, A. J.; Nowson, S.; and Oberlander, J. 2009. What Are They Blogging About? Personality, Topic and Motivation in Blogs. In *Proceedings of the Third international ICWSM Conference*, 18-25. AAAI Press.

Greenberg, S.; Yaari, E.; and Bar-Ilan, J. 2013. Perceived Credibility of Blogs on the Internet—The Influence of Age on the Extent of Criticism. In *Aslib Proceedings* 65: 4-18.

Herring, S. C.; Scheidt, L. A.; Bonus, S.; and Wright, E. 2004. Bridging the Gap: A Genre Analysis of Weblogs. In *Proc. HICSS*, IEEE.

Hillgoss, B., and Rieh, S. Y. 2008. Developing a Unifying Framework of Credibility Assessment: Construct, Heuristics, and Interaction in Context. *Information Processing & Management* 44: 1467-1484.

Huang, C. Y.; Shen, Y. Z.; Lin, H. X.; and Chang, S. S. 2007. Bloggers’ Motivations and Behaviors: A Model. *Journal of Advertising Research* 47: 472-484.

Johnson T. J., and Kaye, B. K. 2000. Using is Believing: The Influence of Reliance on the Credibility of Online Political Information among Politically Interested Internet Users. *Journalism & Mass Communication Quarterly* 77: 865-879.

Johnson, T. J.; Kaye, B. K.; Bichard, S. L.; and Wong, W. J. 2007. Every Blog Has Its Day: Politically-interested Internet Users’ Perceptions of Blog Credibility. *Journal of Computer-Mediated Communication* 13: 100-122.

Kittur, A.; Suh, B.; and Chi, E. H. 2008. Can You Ever Trust a Wiki?: Impacting Perceived Trustworthiness in Wikipedia. In *Proc. CSCW*, 477-480, ACM Press.

Kumar, R.; Novak, J.; Raghavan, P.; and Tomkins, A. 2004. Structure and Evolution of Blogspace. *Communications of the ACM* 47(12): 35-39.

Lenhart, A., and Fox, S. 2006. *Bloggers. A Portrait of the Internet’s New Storytellers*. Pew Internet & American Life Project. <http://pewinternet.org/Reports/2006/Bloggers.aspx,2006>

Litt, E. 2012. Knock, Knock. Who’s There? The Imagined Audience. *Journal of Broadcasting & Electronic Media* 56: 330-345.

Metzger, M. J.; Flanagin, A. J.; Eyal, K.; Lemus, D. R.; and McCann, R. M. 2003. Credibility for the 21st Century: Integrating Perspectives on Source, Message, and Media Credibility in the Contemporary Media Environment. *Communication Yearbook* 27: 293-336.

Morris, M. R.; Counts, S.; Roseway, A.; Hoff, A.; and Schwarz, J. 2012. Tweeting is Believing?: Understanding Microblog Credibility Perceptions. In *Proc. CSCW*, 441-450, ACM Press.

Nardi, B. A.; Schiano, D. J.; and Gumbrecht, M. 2004. Blogging as Social Activity, or, Would You Let 900 Million People Read Your Diary? In *Proc. CSCW*, 222-231, ACM Press.

Nardi, B. A.; Schiano, D. J.; Gumbrecht, M.; and Swartz, L. 2004. Why We Blog. *Communications of the ACM*, 47(12): 41-46.

Rieh, S. Y.; Kim, Y. M.; Yang, J. Y.; and St. Jean, B. 2010. A Diary Study of Credibility Assessment in Everyday Life Information Activities on the Web: Preliminary Findings. In *Proc. ASIS&T*, 47.

St. Jean, B.; Rieh, S. Y.; Yang, J. Y.; and Kim, Y. M. 2011. How Content Contributors Assess and Establish Credibility on the Web. In *Proc. ASIS&T*, 48.

Yang, J.; Counts, S.; Morris, M. R.; and Hoff, A. 2013. Microblog Credibility Perceptions: Comparing the USA and China. In *Proc. CSCW*, 575-586, ACM Press.

Yang, K. C. C. 2007. Factors Influencing Internet Users’ Perceived Credibility of News-related Blogs in Taiwan. *Telematics and informatics* 24: 69-85.

Zickuhr, K. 2010. *Generations 2010*, Pew Internet & American Life Project. <http://pewinternet.org/Reports/2010/Generations-2010.aspx,2010>