

# Interpreting User-Generated Content: What Makes a Blog Believeable?

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**Abstract.** Blogs have democratized participation for everyone who wants to publish on the Internet. This trend, however, is problematic for readers trying to determine trustworthy and believeable sources. This blog diary study, allowed us to understand what aspects influenced believability and ultimately utility through capturing routine blog-surfing behaviors. We found that literary appeal constituted by authentic and personalized stories positively influence the believability of blogs. Blogs that stimulated readers' desire for novel and rare information also enhance their believability. Other factors that significantly correlated with believability included aesthetics, matching information needs and user expectations.

## 1 Introduction

Web logs (blogs) have become an essential cord in the social fabric of the Net. A blog is usually defined as a frequently updated webpage and generally have customized navigation forms with dated entries organized as an archive in reverse chronological order [18]. Blogs can come in many different forms: filters, personal journals, and notebooks [13]. Filter blogs are mainly comprised of selective links by the authors, which often become pointers to other information resources. Personal journal blogs are more diary-like, containing personal thoughts and records of daily events. Lastly, notebook style blogs are usually in the form of long and focused essays. While blogs' form and function have shifted over time, these solo-authored, widely read, personal information sources remain the bedrock of our user-generated infoculture [16].

Blogs have democratized participation for everyone who wants to publish on the Internet. Their popularity is largely dependent on commercial blog software, such as Blogger [4]. Through such user-friendly software, any individual can feasibly create and publish contents on a potentially international scale with little technical knowledge. Given the personal voice, opinionated writing style, and opportunity to author anonymously, how do readers evaluate the believability of individual blogs?

## 2 Background

Most research on the concepts of credibility or believability in social media has been conducted on web pages, a more general genre of online authorship than blogs. It has

focused primarily on trustworthiness and expertise. Trust is described as the willingness of the author to make valid assertion while expertise is the ability (competency) of the author in making those assertions [12]. In perceptions of website credibility, researchers have emphasized three factors: navigation, usability, and author background/affiliation. Their studies have demonstrated that websites with a professional look and feel and ease of use positively influence the perception of credibility [12]. The site author's background and identifiable personal information also has positive impact [10].

Scholars have argued that mechanisms for establishing a perception of credibility among readers may be meaningfully different from general websites and traditional media [15][19]. It has been speculated that trust with readers are facilitated by developing a personal relationship through disclosing the intimate personal and professional lives of bloggers, allowing readers to see the world through their eyes [22]. These authentic experiences, shared in the form of narratives, are a quintessential trait of blogs [2][20].

Compared with credibility in web sites, author identifiable information has no significant influence towards blog believability or credibility perception. One study demonstrated that there were no differences in perceived credibility when the blogger was identifiable versus when they were anonymous [7]. This implied that the identity of the writer was not being used to evaluate the credibility of the blog content. Another study suggested that bloggers build their credibility by showcasing their intellectual abilities through their analytical arguments and insightful commentaries of issues or events [2].

In addition, among experienced Internet users, blogs are perceived as more credible compared to traditional media such as newspapers or TV. [14]. Furthermore, unlike other media, bias in blogs was considered acceptable to readers [14]. These current studies suggest that blog readers may use distinctive factors in evaluating the believability of blogs, which have not yet been explored in greater detail.

### 3 Study Design

Informed by the limitations of prior studies, we designed a contextual diary study that best preserved natural user behavior. An email invitation was sent out to undergraduate and graduate students and their friends who regularly maintain or read blogs. Twenty people participated in this study. Of the participants, 20% were male and 80% were female. The range of participant ages was 24 to 45 years, with a mean age of 28.5 years and a mean of 16 years of education. Our participants' demographics were representative of the population of bloggers as indicated by Pew Internet and American Life Project [16]; in which half of all bloggers are under the age of 30. Based on answers to the self report question about their blog reading habits 20% reported doing so on daily basis, 50% were weekly, and 30% monthly.

Participants were randomly presented with a search scenario to identify blogs that they would want to recommend to a friend within three broad interest areas: health, parenting, and travel. The rationale of having diverse types of blogs was to see whether there are any significant differences of factors influencing believability. The three areas were selected to represent various degrees of consequences and opinionated contents.

For example health blogs would likely have higher consequences of believability and a lower degree of opinionated contents compared to parental and travelling.

Based on the scenarios, participants were asked to search for blog at home on their own time, bookmarking each one that they found to be useful, with a minimum request of five. For each discovered blog, they were asked to complete an online diary consisting of a brief online survey with both open and 5-point Likert-scale questions. The open ended questions asked participant to briefly summarize the blog to ensure that they were actually reading it. The participants were also asked to describe their reasons for selecting the blog. As for the 5-point Likert scale questions (1=strongly disagree and 5=strongly agree) participants rated the blog on dimensions developed from Flanagan and Metzger [11] like believability, bias, persuasiveness and interest. The participants also rated each blog using 10-point scale (1=very low <property> and 10= very high <property>) in property terms proposed by Rubin and Liddy [19]: design, accuracy, timeliness of information, transparency of author information, literary appeal, profit purpose, appeal, and believability. Participants were given a maximum duration of two weeks for completing these online diaries.

After analyzing the participants' compilation of selected blogs and their evaluation for each one, we invited 5 people for a follow-up interview session to better understand their rationale for selecting those blogs and to provide further explanatory detail for our data analysis. These participants were selected based on the extremes of their property ratings, focused on those with large variance in their factors that might influence believability. The interview session was contextualized in the sense that both participants and the interviewer revisited the blogs of interest during the interview session. This interview was conducted through the Skype application which permits screen sharing between the two parties.

## 4 Analysis

In total 77 blogs were analyzed. We performed correlational analyses to identify factors that correlated with believability. We also coded the participants' responses to the open ended question "why do you think the blog is useful?" to help interpret the statistical results.

The relationship between all variables and the blog's believability was investigated using the Spearman correlation coefficient since the measures were ordinal in nature. There was a moderate correlation between the two variables literary appeal and believability ( $r_s = .37, p < .05; n=77$ ). The variable curiosity trigger also had moderate correlation with believability ( $r_s = .32, p < .05; n=77$ ). The other three variables that were weakly correlated with believability were aesthetic, ( $r_s = .26, p < .05$ ), matching needs ( $r_s = .22, p < .05$ ) and matching expectation ( $r_s = .25, p < .05$ ). The following section provides a discussion of our results.

## 5 Result and Discussion

### 5.1 Literary Appeal and Believability

Similar to the web credibility literature [10], we observed that participants valued reliable citations and references in judging the believability of the blogs:

*I think this blog is very useful for parents because it provides a scientifically proven result. (Tracy)<sup>1</sup>*

*There are a lot of links and information about diabetes. The information is a concrete, supported by links, videos, academic research and other reliable resources.  
(Melissa)*

However, the importance of these factors was most dominant in the medical scenario given the serious consequences of applying fraudulent knowledge. For other scenarios where citations are absent, participants relied on self disclosure of the bloggers and authenticity of their personalized stories in making a believability judgement. Self-disclosure has been shown to increase trust in workgroups [5][24]. For bloggers, the self disclosure tended to be holistic covering not only aspects of her/his work, but her/his self and personal life [22]. Through stories, photos, and personal links a blog's personality can reveal much about the author's values, orientation, and biases. In our study, participants valued the personalized diaries which enforced the believability of the blog. One participant explained:

*It gives a daily account of a person living with diabetes, which gives a balanced and realistic story to believe in.  
(Kate)*

The participants also emphasized the authenticity of the blogs' content as one of the criteria they used in recommending it to others. Participants perceived real people's experiences as authentic and trustworthy, as one noted:

*It [the blog] provides a perspective on Bali done by a foreigner who is actually living there instead of simply visiting as a tourist.  
(Sam)*

The authentic and genuine experience allowed readers to relate to the author and immerse themselves in the situation, thus enabling greater believability of the content:

*“When I want to go blogs, I like them to be like talking to themselves, don't act like they are at work, or a teacher or university professor. I just want to have their pure feeling because it helps me to relate and be more attune to the situation.”  
(Cheryl)*

This finding potentially explains why the author background has not been found to be critical for determining credibility. The personalized voice and first-hand experience of the bloggers are cues for determining their competency and hence the believability of their blogs. This observation is also supported by a recent finding that authors' authenticity and passions are a reliable measure for determining blog's content credibility [15].

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<sup>1</sup> Our stylistic convention is to identify quotations from the interviews in italics and direct excerpts from the diaries in Courier font.

## 5.2 Curiosity Trigger and Believability

In the studies of online trust, curiosity has been perceived as critical component in a two staged trust model [17]. Based on this model, trust is formed gradually, initially started with exploratory stage and continue to commitment stage [17]. In exploratory stage, the user did not engaged yet in a specific web site and trying to decide whether or not to explore the web site. Egger [9] argued that users initial reaction to a web site is influence by the its appeal and its ability to arouse the users' curiosity for further exploration. In this study, blogs that have meaningful headings/title and offers variety of information aroused their desire to explore the blog in details as described by our participants:

*"I could see that thediabetesblog.com would be more informational. Thus I would explore this blog more."* (Melissa)

*"It combines food and travel, so i'm curious about the topic, on how food varies around the world."* (Adam)

Most of our participants were motivated by the desire to seek out novel information, also known as diversive curiosity [3]. Thus, authors who satisfied the readers' desire for novel and intriguing information, enhanced the believability of their own blogs. One participant noted:

*"I was curious to know the different between the types of diabetes stages, and from reading her blogs and links provided from this blog, I get to know them."* (Tania)

As described by other researchers [1][14], blogs are perceived to be a credible medium due to the perception of their ability to provide insightful, independent information. Our study found that participants were seeking blogs that provided exquisite and interesting information that was hard to find elsewhere, which eventually lead to higher believability ratings. The following diary notes explain:

*This blog shows the more "hip" side of Bali life. As opposed to other blogs about Bali/Indonesia which tend to be on the denser, more intellectual side of the blogosphere spectrum, this blog provides a lighthearted view of the nightlife, style and beach culture of Bali.*

(Sam)

*If someone wants to travel around the world and eager to know the hidden treasures of the destinations, this [the blog] is the right place to find.* (Adam)

In a prior study, the novelty of a blog's content significantly influenced the playfulness perception of the travel's blog which eventually led to a positive intention to visit the places[6]. This implied that the novelty of the blog content is used as a reliable indicator to actually make decisions. Our study provides further explanation of this novelty impact for the believability perception of blogs.

### 5.3 Aesthetics and Believability

Aesthetics, described as the overall look and design of a site, has been established as one of the factors that influence the credibility of websites. In Fogg's [12] credibility study involving 2500 participants, the general look and feel was the top most factor. Professional looking web sites were often rated as more credible. For this study, generally participants described blogs with high aesthetic qualities as:

*"A good blog should have a neat design, not too colorful, and has a appealing color scheme. It also has to have contemporary design"*

(Adam)

Look and design impacts the judgement of the competency of the blogger, and, hence, influence the believability of the contents, as one participant highlights:

*"I think that an author who would spare some time on finding a good layout is actually dedicative about his/her blog."*

(Melissa)

There was also a strong reliance on images for verifying the blogs' contents and the blogger's experience particularly in travel blogs as illustrated by the following excerpt:

*This blog is based on his real experience which inclusive tips and photo as a proof.*

(Lisa)

Our findings suggest that similar to web credibility perception, the look and design of blogs is being actively considered in evaluating believability. However, it has a somewhat weaker correlation with believability when compared to literary appeal or writing style. This finding might be attributed to the nature of blogs which are diary like, with a higher degree of personal disclosure, resulting in greater attention to its writing style and contents. The look and design, however, supplemented other cues in determining the competencies of the bloggers.

### 5.4 Matching Information Needs, Prior Expectation and Believability

Increasing numbers of people are relying on blogs as primary sources of information. It is reasonable to argue that the ability of blogs to provide sufficient and appropriate information to the readers enhances their believability perceptions. Our diary responses demonstrated that users acquired the information they were looking for which eventually influence their believability perceptions:

*The links provided on the site are suitable for our needs of information.*

(Lyn)

*It [the blog] helps me to plan out when should I go and expect upon vacation to Langkawi by next month.*

(Lisa)

It has been demonstrated elsewhere that readers are often attracted to blogs for their depth of information [23]. The comprehensiveness of information may signal the expertise of the blogger to either compose or compile useful information, hence

positively influencing the believability of the blog. The excerpts below demonstrated our participants' views:

*It consists of everything that a diabetic needs to know.*  
(Abby)

*The current posts and seem to mostly be relevant to child development and the responses seem to be appropriate for the topic of the original post.*  
(Gilmore)

In the public relations literature, an important property of trust is the trustee's expectation about the motives and behaviors of a trustee [8]. If those expectations are met, trust is seen as having been warranted. If not, either the level of trust will be lowered or distrust may guide future actions. Similarly, in the blog literature, the audience of a blog has expectations for the authenticity of the blog [20]. In Baumer et al.'s [2] study, readers recognized the personal opinion and narratives in a blog as part of the blog's authenticity. We shared a similar observation in our study where participants expected the blogs to be based on firsthand experience as precisely described by Tania:

*"My expectations are personal experience from the author and also other useful links related to the topic"*  
(Tania)

On top of that, readers also had some expectation for the frequency of updates, visual style, navigability, responsiveness, appropriateness, and other aspects [2]. From the previous discussions we have observed that aesthetics (visual style) and matching information needs (appropriateness) positively correlate with believability. Having most of the readers' expectation met, led to perception of believability for a blog.

## 6 Conclusion

This study has a few key limitations. Firstly, it employs a correlational analysis method which prevents us from making cause and effect conclusions. Future work can establish a reliable model of believability perceptions by incorporating the aspects identified in this study. Secondly, although we tried to cover a wide range of blogs topics, our three categories are just the beginning of a comprehensive study. Blogs that are dedicated to crisis management (in event of natural disaster), for example, may give greater importance to the "timeliness" factor for assessing the believability.

The value of this particular study is twofold. Firstly, previous studies have mainly focused on credibility perceptions of blogs with other traditional media. These studies have highlighted that blogs are perceived as more credible particularly among experience Internet users. Previous studies also demonstrated that traditional measures like author identifiability did not influence the credibility perception in blogs. These suggested that other factors may be more important in determining the believability and usefulness of the blogs. Our multi-method study is a step toward addressing these gaps. In our field analysis, some key factors like literary appeal and aesthetics emerged as central traits, confirming past literature. However, literary appeal has taken a different meaning where the emphasis is on the personalized and

authentic experience of the authors which positively influence the believability and utility of their blogs. We also found an emerging factor, curiosity trigger, described as the ability to stimulate readers desire for novel information, to influence the believability of blogs. Readers were attracted to blogs that provided exquisite and unique information which could not be found anywhere else. This finding supports other studies who found that people considered blogs as source of rich and deep alternative information source, which eventually led to positive credible perceptions [1]. This study also provided explanatory details that readers have certain expectations of look and design, writing style and appropriateness of information presented.

Secondly, as our information sources are increasingly dominated by user generated content, the question of credibility or believability has become more relevant. Although blogs offer myriad opportunities for learning and gaining new information, improper consideration of the contents' believability and reliability may lead to harmful consequences especially in riskier scenarios such as with medical information. This research is useful in highlighting the measures used by readers in believing the blogs and hence can be used for assessment of such potential harmful consequences and the formation of appropriate Web policies and education both formal and informal.

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