Examination of Factors That Influence Perceived Credibility of Health Information Websites

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Introduction

Undoubtedly, the internet has become an important part of life for many Americans. As a growing number of people turn to it to purchase products and services, conduct businesses, and search for information, credibility has become a key factor. Those who depend on the web for their livelihoods increasingly realize that potential clients and customers do business more frequently with websites they perceive to be trustworthy and credible.

One type of site that thrives in the online setting is health information. Telephone interviews with more than 2,000 randomly selected participants in the United States about their use of Internet health resources led Fox and Fallows (2003) to suggest that 80% of American internet users, or about 93 million Americans, search online for health-related information. With access to vast amounts of health information at their fingertips, the web has proven to be a perfect tool: the internet is open 24 hours a day and provides anonymity for highly personal inquiries (Freeman & Spyridakis, 2004).

However, not all the information one finds online is of high quality; some are riddled with errors, misleading, intentionally biased, or even dangerous. Due to its unrestricted nature, anyone can publish a website to the public, whether the information within the pages are “true” or not. Hong (2006) notes that the ubiquity of inaccurate, incomplete, and outdated online health information can have potentially dire consequences for the consumer and undermine the potential benefits of online health information. Therefore, when searching for information on the web, internet users are tasked with determining the credibility of the information they have found online (Stavrositu & Sundar, 2008). This leads, then, to a provocative question: What factors influence the consumer’s perception of credibility?
The goal of this study was to examine what factors might be at play in this decision. The researcher acknowledges that a website can be credible yet fail to make a connection with consumers; likewise, a website can be egregiously false in its information yet come across as a credible source. Though complex to set-up, this researcher attempted to structure the study so that subjects focused as much as possible on a refined set of factors associated with credibility (gleaned primarily from a comprehensive review of relevant literature)—without commentating on the quality of the information itself.

**Review of Relevant Literature**
The web presents a unique challenge for online users in determining perceived credibility in and raises some questions:

- What characteristics of website information make us accept it as credible?
- How can we measure credibility of a website?
- What factors influence perceived credibility of a website?

This literature review thus explores four distinct areas: (a) background in studies of credibility in online settings, (b) dimensions of website credibility, (c) measuring website credibility, and (d) factors that influence website credibility.

**Background in Studies of Credibility in Online Settings**
While credibility has been researched extensively within the fields of philosophy, psychology, sociology, management, marketing, and other scholastic domains, it is only now becoming a key construct relative to online settings and warrants separate, dedicated study (Corritore, Kracher, & Wiedenbeck, 2003). While certain factors that lead to perceived credibility are
congruent in both virtual and the physical world, there are obvious differences between them. The online environment removes the physical sociability cues in interaction between the provider and the consumer; visual and auditory cues such as facial expression, body language, and voice intonation that can influence credibility and trust in the physical world are removed as well. In the physical world, credibility is multi-dimensional; it is the aggregation and synthesis of perceived competence, character, composure, dynamism, and sociability (Burgoon, Bonito, Bengtsson, Cederberg, Lundeberg, & Allspach, 2000). Then, what dimensions make up credibility in the virtual world?

**Dimensions of Website Credibility**

In the simplest form, the term *credibility* can be defined as *believability* (Fogg et al., 2001). However, just as defining credibility and trust is difficult in the physical world, defining credibility in the online setting proves to be complex. Credibility is defined by reader judgment; it is a perceived quality that does not inherently reside in a website or in a piece of information (Fogg et al., 2001; Freeman & Spyridakis, 2004). While it is broadly accepted that credibility of a website is perceived by the user, the theoretical dimensions that make up credibility are not.

Bates, Romina, Ahmed, and Hopson (2006) proposed truthfulness, readability, and completeness as the dimensions of credibility in online settings. Fogg et al. (2001), however, sees two more comprehensive categories: trustworthiness and expertise. Freeman and Spyridakis (2004) include dynamism, or attraction of the website, into that mix. Still other researchers have proposed such dimensions as expertise, objectivity, goodwill, ease of use, risk, depth, and fairness (Corritore et al., 2003; Hong, 2006).
Within those smorgasbords of dimensions, Dutta-Bergman (2004) contends that while there are no universal set of dimensions on which scholars can agree, trustworthiness and expertise of the source are the two most widely “used” when studying source credibility. Trustworthiness in the online setting can be conveyed through explicit policy statements, lack of commercial content, and attractiveness of the web pages; expertise may be reflected in site informativeness, display of appropriate credentials, or the site’s reputation (Flanagin & Metzger, 2007). However, even within these two dimensions, there is some dispute. Corritore et al. (2003) argue that credibility is a cue for trustworthiness, while others list trustworthiness as an element that makes up credibility (Fogg et al., 2001; Hong, 2006).

With so many dimensions making up website credibility already offered by the researchers, how do the researchers study and measure website credibility?

**Measuring Website Credibility**

Researchers take one of two general approaches in measuring website credibility: studies either take a narrow approach, where a few characteristics of the websites are isolated and manipulated, or a broad approach, where subjects explore a website to rate different aspects of it that influence perceived credibility. In exploring the website characteristics that influence credibility, the factors can be divided into two main areas: content or message features and design or structural features (Hong, 2006). However, studies in website features themselves are not enough to fully cover how website credibility is perceived. Since credibility is a quality that people *perceive*, human factors such as gender (Fogg et al., 2001), age (Fogg, et al.), online experience level (Corritore et al., 2003; Flanagin& Metzger, 2007; Fogg et al., 2001; Hong,
2006), and cultures (Cyr, Bonanni, Bowes, & Ilsever, 2005; Fogg et al., 2001) are studied to see how they influence website credibility.

In addition to those issues, the progressively changing nature of the web makes it harder for researchers and users alike to effectively evaluate credibility in websites. As the internet matures, it is more common to see professional, well-designed websites from personal blogging sites to ill-reputable websites, linked from Spam emails. Recent “phishing” scams, where criminals create a mock website that resembles one for a reputable company or bank in order to steal personal and financial information, are more lethal because of the criminals’ use of credibility indicators in the designs. Warnick (2004) reminds us that “domain names are proliferating; we can no longer rely on .com, .net, .org, .gov, and so forth. Now, .info, .biz, and others are added to the mix, and the URL becomes less and less a reliable marker of what type of site it is” (p. 263).

While those obstacles need to be overcome, researchers have been making steady progress in finding out more about what factors influence website credibility.

Factors that Influence Website Credibility
While listing all the findings for website credibility would be out of this paper’s scope, there are some interesting results from various researchers’ studies.

As earlier mentioned, design elements are prominent factors that influences website credibility. To examine the factors that affect the credibility of online health information, Freeman and Spyridakis (2004) created eight different web pages varying in two article topics, presence or absence of street address of the website, and presence or absence of external links. Each of 150 participants was shown one of eight web pages which he or she evaluated in a
questionnaire-style format. Most revealing were the open-ended comments, which revealed two major issues of criticality to participants: design of the page (“professionally designed,” “easy to navigate,” “easy to scan”) and source of information (p. 253). The earlier survey by Fogg et al. (2001) suggests a similar trend; in surveying 1,410 people with 51 questions on web credibility, ‘ease of use’ of a website was shown to be the second biggest factor impacting web credibility after ‘real world feel.’

Age of the user seems to play a factor when making judgments about the credibility of a website, with younger subjects more critical of amateurism in a website (i. e., typographical errors and broken hyperlinks) than older participants (Fogg et al., 2001). This could be due to the fact younger subjects are likely to have more experience on the web, making them more critical as their expectation is higher from greater number of exposure to different websites.

Message features, such as authorship of text and information about currency of the article, were also indicated as factors that influence web credibility. In her study, Hong (2006) analyzed data gathered from 83 university students to find the structural and message features that influence website credibility. Computer stations were set up where the participants were randomly given a generic and a specific search task. After a task was given, subjects were instructed to take as much time as needed until they have found a page they considered to provide the best information. Subjects then filled out a self-administered questionnaire where they assessed the perceived credibility of the website they found. In addition to the survey data, content analysis was done on all the websites chosen by the subjects using the same coding instrument to indicate the presence or absence of several structural and message
features. Findings suggest that the presence of authorship, information currency, source reference, and other message features positively influence website credibility.

Study results also indicate that there is no difference in making judgments about perceived credibility whether the user had a specific search task at hand or casually browsing the website (Dutta-Bergman, 2004; Hong, 2006). While this result is surprising at a first glance, this result could infer that a user makes an automatic judgment in credibility of a website rather than deliberately processing different characteristics of the web page before making the judgment.

In addition, Flanagin and Metzger (2007) examined genre of the website as a factor affecting credibility. Participants in their study (n=574) were shown the same content in one of four genres of websites: news organization, e-commerce, special interest, and personal sites. Subjects were then directed to a questionnaire which had them rate the website’s sponsor, message, and site credibility. From their data analysis Flanagin and Metzger found that there is a genre bias when it comes to credibility; both the news website and the e-commerce website were perceived to be significantly more credible than the special interest website, which in turn was seen to be more credible than the personal website.

In summary, this researcher’s review of relevant literature revealed many factors that can influence website credibility. However, because of several limitations the scope of this study has to be narrower; before going into the methodology of this study, it is critical to take the contextual factors into perspective for the settings and limitations of the study.
Contextual Factors

The researcher faced three main factors that hindered his ability while conducting this study: time, study design, and sample selection.

Time

Time was an overarching problem the researcher anticipated from the start of the study; being part of a shorter Summer course, there were fewer than 8 weeks for the entire study to be conceptualized, designed, implemented, and analyzed. In addition to anticipated time constraints, the researcher had to make a major modification to the focus of his study during the planning stages. Consequently, the researcher had less time than originally planned in the following steps necessary in the implementation of the study. In addition, the researcher’s lack of previous experience with analytical statistics made the time constraints more apparent in analyzing and interpreting the data.

Study Design

The study was based on Pre-Experimental Design 1: One-shot Experimental Case Study (Leedy & Ormrod, 2005); the researcher acknowledges that the study was affected by external factors which he could not control—affecting internal validity.

Because of the time limitation previously noted, the researcher elected to utilize only the survey as the tool to gather data. Clearly, interviews with the respondents would have yielded more insight on the limitations of the survey and would have allowed for data triangulation. In addition, the survey used in this study was a self-report; however, multiple researchers have found that what the respondents say they did to verify website credibility does not always
match with *what they actually did* (Bates et al., 2006; Flanagin & Metzger, 2007; Warnick, 2004). Finally, there is a possible bias in the survey data due to *persistence*; participants were assigned a real task to complete and those who did not want to spend much time could have answered the survey questions without giving much thought to the task.

**Sample Selection**
Due to the budget and time constraints of the study, the sample chosen for this study was done through convenience sampling with the sample being largely homogeneous in terms of geographical location. The researcher acknowledges that due to the nature of the sampling, the study’s external validity is severely weakened. The sample size is another limitation to the study; 61 people were contacted as potential participants, from which 28 respondents participated in the survey (for a response rate of 46%). In addition, 17 of the 61 sampled (28%) were contacted via email by another person with additional email introduction; such differences could potentially have had an effect in the data collected through the survey. Due to the nature of the sample and with such small sample size, findings from this study cannot be representative of the overall population.

With these contextual limitations in mind, we will look at how the study was conducted.

**Methodology for the Study**
To discover possible factors which influence perceived credibility of a website, participants were asked to complete a series of repetitive tasks and, after each set, answer several
questions. In this section, we will look at how the study was conducted in four separate sections: sampling, instrument used, procedure, and data analysis.

Sample
A total of 61 people were contacted as potential participants for this study using convenience sampling. The sample consisted of two distinct groups: 44 acquaintances of the researcher and 17 distance students enrolled in EDTEC 541, an introductory class to Educational Technology Master’s program at San Diego State University.

Instrument
Three websites were chosen for the subjects to explore: familydoctor.org, quitsmoking.com, and quitsmoking.about.com (see Appendix A for screenshots of each websites). Each website was reviewed by the researcher to verify the information needed for the task was present. The three websites were chosen to have conspicuous differences in design, layout, number of articles, and authorship information. Well-known health websites such as Health.com and Webmd.com were avoided in an effort to curtail any previous bias for or against the website.

A survey was created using Surveymonkey.com (a web-delivered and fee-based tool) for the participants to fill out at the end of their task. The survey featured identical set of questions for each of the three websites that the respondents reviewed.

- The first question asked for the amount of time spent for the website.
- The second question inquired about the actions the subject took to determine the credibility of the website – whether he or she had looked for the author’s name, checked for the author’s credential, reviewed different articles, and other behaviors.
• The third question prompted the participant to rate the website (using a four point ordinal scale) in different areas of the website such as the clarity of the author’s credential, ease of navigation, design of the page, and other factors. The ordinal scale ranged from needs improvement (1) to excellent (4). Finally, the fourth question for each websites asked whether the participant would recommend the page using a five point ordinal scale, which ranged from strongly disagree (1) to strongly agree (5), to gauge their overall credibility “value.” A copy of the survey appears in Appendix B.

Procedure

Potential participants were contacted via email either directly from the researcher or through the instructor for EDTEC 541 class with a brief description of the study and a task for them to complete. The introductory paragraph of the email message informed the individual of the scholastic nature of the study, assured confidentiality and anonymity of the respondents, and the value of their participation. Following the introductory text, the subject was given the following task:

Your uncle, a man in his 50s, has been a heavy smoker for 20 years but is now contemplating quitting. To assist him, you've searched the web for sites that offer credible information about quitting smoking -- and found three from which to choose.

Please look for steps recommended in quitting smoking from each websites and other contents relevant to quitting smoking until you come to a firm conclusion on whether you would send the link to the website to your relative or not.

(Full texts of the emails are available in Appendix C.)
The participant was asked to click on each of the three links to the websites embedded in the email, spending as much time as needed on each website before moving on to the survey. After reviewing all three websites, the individual was to fill out the online survey. Upon completion of the survey, the subject was linked to an exit page with a brief note of thanks.

**Data Analysis**

Data from the survey were analyzed in SPSS 16 and Microsoft Excel 2007 on a personal computer. The survey analysis was largely descriptive, with the researcher utilizing basic frequency distributions, cross tabulations and measures of central tendency.

**Findings**

The questions in the explored two distinct factors affecting website credibility: the behavior of the person when determining perceived credibility of the website and structural or content factors within the website that influence credibility.

**Analysis**

**Driving Factor in Analysis**

In analyzing the data, results from Question 4 were chosen to be the driving factor in the process. As previously mentioned, question 4 called for respondents to indicate their willingness to recommend the website to their relative using a five point ordinal scale, ranging from *strongly disagree* (1) to *strongly agree* (5). Descriptive statistics between the websites indicate the difference between Familydoctor.org (M = 3.93, SD = .874) and Quitsmoking.about.com (M = 3.67, SD = .961) is much smaller than Quitsmoking.com (M = 2.30, SD = 1.325). The scale then was re-coded into a dichotomy (*disagree* and *agree*), discarding the
neutral. Figure 1 shows that there is a noticeable difference between the results from Familydoctor.org/Quitsmoking.about.com and Quitsmoking.com; while Familydoctor.org/Quitsmoking.about.com had relatively identical, high recommendation rate, Quitsmoking.com had a much lower recommendation rate than the other two websites and a high non-recommendation rate. While results from all three websites will be used to analyze the behavior of the subjects, data from Quitsmoking.com will not be taken into consideration when analyzing the structural and content factors that influenced website credibility for the participants.

Subject’s Behavior in Verifying Credibility

One conspicuous result from this study is that most respondents did very little in terms of verifying the credibility of the website. There were five specific actions about which they were asked to report: (1) I looked for the author’s name, (2) I looked for the author’s credentials, (3) I looked for the recency of the articles, (4) I reviewed different articles concerning smoking
cessation, and (5) I looked for information about the sponsoring organization. Data gathered from the survey were aggregated to give an overview of the pattern in the actions taken to verify credibility of the websites, in addition to the data from individual websites. From the five actions, three items had over 50% of the subjects indicate that they did not take the said action:

- 53.7% of the respondents did not look for the author’s credential nor the recency of the article.
- 51.9% of the respondents did not look into information about the sponsoring organization.
- 47.6% of the respondents did not look into the author’s name. (In fact, only 7.3% claimed to perform this task thoroughly.)

Interestingly (and somewhat oddly), 76.8% of the respondents reviewed different articles concerning the topic, either by skimming (52.4%) or looking thoroughly (24.2%) within the website. This action, in fact, was consistently shown to be the highest across all three websites. Clearly, though, skimming or reading did not include looking for author or sponsoring organization information.

The researcher also noticed that respondents took greater “care” as they moved from one website to the next. While the time spent on each website does not directly suggest this, there was indeed a gradual increase in count for both “I skimmed for this” and “I looked very thoroughly for this” while the count from the scale “I did not do this” went down over the period of the survey (See Table 1). The researcher recognizes that this finding could reflect an order bias in the survey; random ordering of website would be ideal to prevent such bias from possibly skewing the data.
Factors influencing website credibility

To find out what factors within the websites caused the respondents to choose to recommend or reject the website, cross tabulation was utilized to explore what structural or content factors influenced their decision to recommend or not. As previously mentioned, the data from Quitsmoking.com were removed in this process to keep its data from contaminating the within group analysis between Familydoctor.org and Quitsmoking.about.com.

Data from four point ordinal scale for question 3 of the survey was re-coded into a dichotomy: needs improvement and satisfactory and then paired with results from question 4.

The results indicate that clarity of the author’s credential was the least indicative of perceived credibility. While there were 12 respondents who indicated the need for improvement in clarity of the author’s credential for Familydoctor.org and 7 for Quitsmoking.about.com, 9 people or 75% for Familydoctor.org and 3 people or 42.8% for Quitsmoking.about.com went on to indicate that the he or she would recommend the website to the relative (Table 2). The item “[website] seems to be judgmental in the information provided” was the most inconsistent data

\[
\begin{array}{|c|c|c|c|}
\hline
[Website] is clear about the author’s credentials. & Needs improvement & Satisfactory & Total \\
\hline
\text{For website 1 & 3} & & & \\
\hline
\text{Disagree} & 7 & 0 & 7 \\
\text{Agree} & 12 & 25 & 37 \\
\text{Total} & 19 & 25 & 44 \\
\hline
\end{array}
\]

\[
\begin{array}{|c|c|c|c|}
\hline
[Website] seems judgmental in the information provided. & Needs improvement & Satisfactory & Total \\
\hline
\text{For website 1 & 3} & & & \\
\hline
\text{Disagree} & 2 & 5 & 7 \\
\text{Agree} & 10 & 25 & 35 \\
\text{Total} & 12 & 30 & 42 \\
\hline
\end{array}
\]
within the two websites. 83.3% of the respondent indicated that the website needs to improve on the topic he or she went on to respond that they would recommend the webpage to their relative. In addition, this item had the highest number of count being satisfactory (5) for a website the subject later chose not to recommend (Table 2).

Five factors were found to have the most positive effect in influence perceived credibility of the website: website that seems to be user/customer focused, seems to be comprehensive in information, is arranged in a way that makes sense, is easy to navigate, and seems professionally designed -coincidentally, the first two factors listed are message features and the latter three are the structural features of a website. The data suggests that message features seem to be more influential than the structural features; website that seems to be user/customer focused and seems to be comprehensive in information were tied to be the best indicator of website credibility, with the lowest rate of people who indicate the need to improve recommending the website (1 out of 6) as well as having the highest rate (38 out of 40) of people who report the feature to be satisfactory recommending the website. Arrangement of the website and ease of navigation followed with professional design barely behind with one and two counts off, respectfully, from the message features.

**Discussion**
Results from this study seem to reinforce the findings from other relevant literature. Hong (2006) reported in her study that message features were more indicative than structural features in determining the perceived credibility of a website, which this study also supports. However, there is some evidence to the contrary. While Quitsmoking.com was rated to have the worst structural features (design, ease of navigation, arrangement of the website), the
number of actions taken to verify the credibility for Quitsmoking.com was largely similar with Familydoctor.org. Furthermore, people spent the least amount of time in determining the credibility of the website for Quitsmoking.com, with 16 respondents (64%) reported to have spent 2 or less minutes on Quitsmoking.com in comparison to 11 (39.3%) and 6 (24%) subjects reporting the same behavior for Familydoctor.org and Quitsmoking.about.com respectively; such result indicate that structural features, which take much shorter time to verify than message features, could have been the biggest influence for Quitsmoking.com.

This study also indicates that people do not check for currency of the information—an observation that Metzger (2007) also reports. In addition, data from this study indicates that the participants did not look for the author’s credential as well. One finding from this study may offer an explanation for such actions; this study’s result indicates that reviewing different articles to verify the credibility of the website was utilized the most. This could mean that the subjects were confident in their ability to sieve through information to determine the credibility of the information without having to check the authorship information or recency of the article. However, without additional information confirming that idea, it remains a mere speculation.

As mentioned in the contextual factors, this study does not have a high external validity due to the design of the study. Further research needs to take into account of the gender, age, and cultural background of the subjects to paint a clearer picture of what factors truly influences a person in perceived credibility of a website.
References


Appendix A

Screenshots of the Websites

Figure A1: Familydoctor.org

Figure A2: Quitsmoking.com
Figure A3: Quitsmoking.about.com
Appendix B

Online Survey

We would highly appreciate your participation in the study conducted for a graduate level research class in the College of Education at San Diego State University (SDSU). The entire process should roughly take between 10 to 15 minutes to complete, and your anonymity and confidentiality are strictly assured. Because we’re working under a tight timeline during Summer classes, please respond no later than Monday, July 28.

Following is the scenario with which you’ll be working:

Your uncle, a man in his 50s, has been a heavy smoker for 20 years but is now contemplating quitting. To assist him, you’ve searched the web for sites that offer credible information about quitting smoking – and found three from which to choose. Please look for steps recommended in quitting smoking from each websites and other contents relevant to quitting smoking until you come to a firm conclusion on whether you would send the link to the website to your relative or not.

Please read each survey item carefully before responding -- and feel free to visit the websites as you’re answering the questions. If you have any questions or concerns regarding this survey or the use of the data, please contact my faculty supervisor, Dr. Marcia Doben-Michel.
**Website Credibility**

Please answer the following questions without skipping any item.

*This page of this survey is for the first website only.*

1. How much time did you spend on familydoctor.org?
   - 2 minutes or less
   - 3 to 5 minutes
   - More than 5 minutes

2. In determining the credibility of the first website:

<table>
<thead>
<tr>
<th>Action Description</th>
<th>I did not do this</th>
<th>I skimmed for this</th>
<th>I looked very thoroughly for this</th>
</tr>
</thead>
<tbody>
<tr>
<td>I looked for the author’s name</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I looked for the author’s credentials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I looked for the recency of the articles</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I reviewed different articles concerning smoking cessation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I looked for information about the sponsoring organization</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Website Credibility

#### 3. Familydoctor.org...

<table>
<thead>
<tr>
<th></th>
<th>Needs Improvement</th>
<th>Barely Acceptable</th>
<th>Satisfactory</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is clear about the author's credentials.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is arranged in a way that makes sense to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is easy to navigate to find the information.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appears to have experts on the topic discussed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seems professionally designed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seems user/customer focused.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seems comprehensive in information about quitting smoking.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seems judgmental in the information provided.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has additional resources sponsored by sources I recognize.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### 4. After evaluating familydoctor.org,

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>This website is worth recommending to my relative.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Website Credibility

Page 3/4 - Website 2 - quitsmoking.com

Please answer the following questions without skipping any item. This page of this survey is for the second website only.

1. How much time did you spend on quitsmoking.com?
   - 2 minutes or less
   - 2 to 5 minutes
   - More than 5 minutes

2. In determining the credibility of the second website:
   - I did not do this
   - I skimmed for this
   - I looked very thoroughly for this

   I looked for the author's name
   I looked for the author's credentials
   I looked for the recency of the articles
   I reviewed different articles concerning smoking cessation
   I looked for information about the sponsoring organization
### Website Credibility

#### 3. Quitsmoking.com...

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Needs Improvement</th>
<th>Barely Acceptable</th>
<th>Satisfactory</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is clear about the author's credentials.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Is arranged in a way that makes sense to me.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Is easy to navigate to find the information.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Appears to have experts on the topic discussed.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Seems professionally designed.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Seems user/customer focused.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Seems comprehensive in information about quitting smoking.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Seems judgmental in the information provided.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Has additional resources sponsored by sources I recognize.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

#### 4. After evaluating quitsmoking.com,

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>This website is worth recommending to my relative.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Website Credibility

1. How much time did you spend on quitsmoking.about.com?
   - 2 minutes or less
   - 3 to 5 minutes
   - More than 5 minutes

2. In determining the credibility of the third website:

<table>
<thead>
<tr>
<th>I did not do this</th>
<th>I skimmed for this</th>
<th>I looked very thoroughly for this</th>
</tr>
</thead>
<tbody>
<tr>
<td>Looked for the author's name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Looked for the author's credentials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Looked for the recency of the articles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reviewed different articles concerning smoking cessation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Looked for information about the sponsoring organization</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Website Credibility

#### 3. Quitsmoking.about.com...

<table>
<thead>
<tr>
<th></th>
<th>Needs Improvement</th>
<th>Barely Acceptable</th>
<th>Satisfactory</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is clear about the author’s credentials.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Is arranged in a way that makes sense to me.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Is easy to navigate to find the information.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Appears to have experts on the topic discussed.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
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<td>○</td>
<td>○</td>
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<td>Seems user/customer focused.</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Appendix C

Study Solicitation Email

Email Through EDTEC 540 Instructor

Hi everyone

I’d like to invite each of you to take a few minutes to help an EDTEC grad student, John Park, by responding to the survey he’s conducting as part of his ED 690 course this summer. I believe John will get back to all participants with the results of the study, and you should probably find it fun and easy to participate. This is a perfect topic for our class, too, as you may be able to incorporate some of John’s recommendations in your own final project and future web work.

Thanks for helping out!

HI ...

I’m John Park -- a fellow EDTEC graduate student. This Summer I’m enrolled in ED 690: Methods of Inquiry.

I would highly appreciate your participation in the research study I’m conducting for this course. The entire process should roughly take between 10 to 15 minutes to complete, and your anonymity and confidentiality are strictly assured. Because we’re working under a tight timeline during Summer classes, please respond no later than Monday, July 28.

Following is the scenario with which you’ll be working. After reading through it, you’ll visit each of the links listed below (First website, Second website, Third website) and then complete a series of questions about them (Link to survey).

Your uncle, a man in his 50s, has been a heavy smoker for 20 years but is now contemplating quitting. To assist him, you’ve searched the web for sites that offer credible information about quitting smoking -- and found three from which to choose.

Please look for steps recommended in quitting smoking from each websites and other contents relevant to quitting smoking until you come to a firm conclusion on whether you would send the link to the website to your relative or not.

Please read each survey item carefully before responding -- and feel free to visit the websites as you’re answering the questions.

If you have any questions or concerns regarding this survey or the use of the data, please contact my faculty supervisor, Dr. Marcie Bober-Michel.

------------------

Please do not close this e-mail until the end of the survey for easy access to the links.

First website
Second website
Thank you once again for your participation.

**Direct Email from Researcher**

I would highly appreciate your participation in the study conducted for a graduate level research class in the College of Education at San Diego State University (SDSU). The entire process should roughly take between 10 to 15 minutes to complete, and your anonymity and confidentiality are strictly assured. Because we're working under a tight timeline during Summer classes, please respond *no later than Monday, July 28.*

Following is the scenario with which you'll be working. After reading through it, you'll visit each of the links listed below (First website, Second website, Third website) and then complete a series of questions about them (Link to survey).

Your uncle, a man in his 50s, has been a heavy smoker for 20 years but is now contemplating quitting. To assist him, you've searched the web for sites that offer credible information about quitting smoking -- and found three from which to choose.

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Please read each survey item carefully before responding -- and feel free to visit the websites as you're answering the questions.

If you have any questions or concerns regarding this survey or the use of the data, please contact my faculty supervisor, [Dr. Marcie Bober-Michel](mailto:dr.markiebobermich@sdstate.edu).

Please do not close this e-mail until the end of the survey for easy access to the links.