Older Adults’ Credibility Assessment of Online Health Information

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Abstract

This study examines older users’ information needs and related online information behaviors with a focus on information credibility assessment. In particular, the study will explore older adults’ perception of information credibility on the Web, and the markers (cues), and heuristics used in their credibility judgments. The study is guided by a new framework of Web credibility assessment which is synthesized from an analysis of the literature and by identifying and integrating common (and unique) components of existing theoretical frameworks and models pertinent to credibility assessment of online information. A semi-structured interview is employed as an effective means of data collection, which incorporates both open-ended and more theoretically driven questions, eliciting data grounded in the experience of the participant. Expected research and practical implications of the proposed study are discussed in the proposal.

Keywords: information credibility, credibility assessment, Web credibility, online health information, older adults
Problem Statement

In the current world of interactive information systems, in which people post and share information through various Web-based venues such as personal homepages, blogs, and social networking sites (SNSs), credibility of information may be a more important issue than ever before. One important reason why credibility is a particularly crucial factor that requires consideration in the Web environment is that anyone can edit and reproduce information anonymously on the Web. While substantial resources and expertise were required to produce and disseminate printed information on a mass scale in the past, nearly anyone can be an author in the current Web environment because no type of censorship is demanded (Metzger, 2007). Web credibility is a particularly crucial factor when it comes to selecting and using online health information, as the decision to make use of health information can affect the overall quality of human life (Eysenbach, 2008; Gustafson & Wyatt, 2004). Despite the potential lethal effect of inaccurate health information on human life, health information available online is not necessarily authored by medical professionals, thereby potentially leading people away from proper care (Eastin, 2001).

In addition, the distinctive characteristics of the Web, such as the overwhelming volume of information, the ease of publishing professionally-appealing content, the convergence of genres, hyperlinking from source to source, and the malleability of digital information, require more attention to credibility issues (Burbules, 2001). In other words, assessing credibility of online resources is different from and more challenging than assessing credibility in traditional settings (Metzger, Flanagan, Eyal, Lemus, & McCann, 2003).

Significance of the Study

The process of assessing information credibility relies on users’ perceptions, which are highly influenced by users’ demographic characteristics (i.e., audience factors), such as age, gender, and education levels, as well as by topics, such as news, entertainment, and health
OLDER ADULTS’ CREDIBILITY ASSESSMENT OF ONLINE HEALTH INFORMATION  

(Flanagin & Metzger, 2013; Hovland, Janis, & Kelley, 1953; Lucassen, Mulwijk, Noordzij, & Schraagen, 2013). In particular, some previous studies have found that age may have a significant impact on Web credibility assessment (Agosto, 2002; Fogg et al., 2001; Zulman, Kirch, Zheng, & An, 2011). For instance, Fogg et al. (2001) found that participants of 28 years old or younger tended to be more critical of amateurism on a site, compared to those who were 37 years old or older. In addition, the older respondents in the study reacted more favorably to Websites conveying markers of expertise and trustworthiness.

Older adults are a relatively less studied user group in the information credibility literature, even though their use of Internet services has been expanding rapidly over the years: As of April 2014, 59% of American older adults who are 65 years old or older use the Internet (Smith, 2014), up from 15% in 2000, 37% in 2008, and 56% in 2013 (Smith, 2013); in terms of SNSs use, 46% of the older Internet users use SNSs in 2014 (Smith, 2014), up from 5% in 2005, 11% in 2008, and 43% in 2013 (Brenner & Smith, 2013). In particular, a significant proportion of older adults look for health information online, having a great concern for health care: approximately 58% of Internet users who are 65 years old or older looked for health information online in 2013 (Fox & Duggan, 2013). Most of the previous studies on information credibility assessment have been either based on or focused on younger generations’ perceptions, such as college students or high school students (Hargittai, Fullerton, Menchen-Trevino, & Thomas, 2010; Hilligoss & Rich, 2008; Hong, 2006; Liu, 2004; Metzger, Flanagin, & Zwarun, 2003; Rieh & Hilligoss, 2008). Other studies have been conducted with the general population, consisting of a wide range of age groups (Fogg et al., 2003; Kim, 2010; Metzger, 2007; Princeton Survey Research Associates, 2002; Savolainen, 2011). Even though some studies have dealt with older adults’ credibility assessment of online health information, they tended to focus on the factors responsible for older adults’ distrust in online information (Robertson-Lang, Major, & Hemming, 2011; Zulman et al., 2011), rather than looking into the underlying dimensions and structures of their perceptions of Web credibility.
Older adults, who have relatively less experience with the Internet than younger generations, tend to have more concerns or doubts about the credibility of health-related resources on the Web. Kaiser Family Foundation (2005) reported that only 26% of Internet users who were 65 years old and older trusted online health information “a lot” or “some” to provide accurate health information, while 57% of younger adults did. Fisk, Rogers, Charness, Czaja, and Sharit (2009) mention that it may be because their expectations about how a system should work is based on how previous versions (i.e., non-electronic) were structured. In other words, they may assume that the credibility of online information is relatively lower than that of printed information because they are more familiar with printed information that is produced and disseminated through a stricter process that requires enough authority and capital to justify and sell information product. In the same context, younger people tend to less care about the credibility issues when they select online information (Agosto, 2002; Rieh & Hilligoss, 2008), which indicates that there are different levels of concerns with credibility of online information among age groups.

However, the fact that older adults have more concerns with credibility issues does not necessarily mean that they are able to seek out indicators of credibility when exploring a Website. 93% of older adults believed that the Websites they chose were credible, but only 29% of them actually checked the source of the sites to make sure they were credible; some participants automatically trusted online health information simply because they are on the Web (Robertson-Lang et al., 2011). Zulman et al. (2011) showed that older adults’ lack of Internet experience and unfamiliarity with technology influenced their trust of online resources. More specifically, the relationship between age and distrust in the Internet as a source of health information was attenuated after adjusting for the Internet experience and technical difficulties with the computer or Internet. Therefore, older adults who have relatively lower levels of experience and proficiency with the Internet than other age other age groups may need to be studied separately.
Furthermore, there have been studies examining age differences in trust from the perspectives of neural activity, which may underlie older adults’ vulnerability to fraud. In Castle et al.’s (2012) study, older adults rated untrustworthy faces as significantly more trustworthy and approachable than younger adults did. Also, older adults show lesser activation in the anterior insula (AI), a region believed to contribute to decision-making by instantiating subjective feeling states, when making explicit judgments of trustworthiness and when perceiving untrustworthy faces. The authors argue that reduced AI activation seen in older adults may be a neural indicator of a weaker warning signal than is present in younger adults. Thus, the results may be implicated that older adults may have a lower visceral warning signal in response to cues of untrustworthiness, which could make deciding whom to trust difficult, and may make them fall victims of online fraud a higher rate than other age groups.

Despite the increase in the population of older adults who use the Internet and their vulnerability in perceiving and/or processing markers/cues to assess information credibility they found online, there are few studies focusing on older adults’ credibility assessment of online information. Therefore, the findings from the proposed study will contribute to the information behavior and HCI literature, and provide preliminary data for future research. In particular, the review on the seven existing theoretical frameworks regarding information credibility assessment will provide a good overview of the conceptual models of the topic, identifying common and unique components of each theory. Moreover, the study will come up with a refined/improved conceptual model for Web credibility assessment based on the data collected from older adults. It will be a meaningful extension for theorizing the process of credibility assessment of online information, taking audience and contextual factors into consideration.

Further, studying the mechanisms of older adults’ Web credibility assessment has several practical implications as well. First of all, Web credibility assessment will provide a better understanding of how older adults make decisions about the quality of information pertinent to their information needs on the Web. When people do not have sufficient knowledge and expertise
to directly judge the quality of information, credibility markers (i.e., cues) and heuristics can play roles in the decision-making process of acceptance or rejection of the information.

Also, findings from the study can inform online service developers and intermediaries (e.g., search engines) about mechanisms of how older adults perceive credibility of online information, and how it affects their use of online systems. This can be used as a knowledge base in designing, describing, indexing, ranking, and promoting Web-based services.

Lastly, Web credibility research can be utilized for educational purposes. Knowledge about the process of Web credibility assessment and involved markers and heuristics could be used to teach people how to evaluate information and recognize credible sources. In particular, public librarians could take advantage of this knowledge to provide better reference services to patrons.

**Purposes of the Study and Research Questions**

First, the research attempts to provide a better understanding of the target population (i.e., older adults) in the Web context. In particular, the research defines who older adults are and identifies what their typical information needs are.

Second, the research develops a conceptual model for Web credibility assessment that takes user population factors into consideration (e.g., age, gender, technology proficiency/comfort levels, etc.). Seven existing theoretical frameworks pertinent to credibility assessment are reviewed and analyzed, identifying common and unique components of each theory.

Lastly, the study will gain deeper understanding of older adults’ health information seeking and Web credibility assessment behaviors using semi-structured interviews. The conceptual model will be used to guide the construction of interview protocols and data analysis.

To address the research purposes, the following questions have been developed:

RQ1: In general, what are older adults’ common (everyday life information seeking: ELIS) information needs?
RQ2: What are older adults’ health information needs and related information behaviors?

RQ2-1: What sources do older adults use to find health information both on- and offline?

RQ2-2: Why do they use those sources?

RQ2-3: How do they use the information they find?

RQ2-4: Do they share the information they find? If yes, when, why, how, and with whom?

RQ3: What is the perception of Website credibility by older adults (i.e., credibility criteria)?

RQ3-1: What are some of the psychological, social, and/or cultural mechanisms that underlie and/or affect those perceptions?

RQ4: What are some of the markers/cues and heuristics that are used by older adults to assess the credibility of health-related Websites?

RQ4-1: Which markers/cues and heuristics increase older adults’ perceived credibility of a health-related Website?

RQ4-2: Which markers/cues and heuristics decrease older adults’ perceived credibility of a health-related Website?

Method

Identifying the Sample

The target population of the research is older adults who use health information online. This research defines older adults as people who are 55 years old or older based on Neugarten’s (1974) definition, which is relatively more specific and comprehensive than other definitions by U.S. Social Security Administration (2014) or Laslett (1989). In particular, Neugarten’s subdivision of older adults (i.e., ‘young-old’ and ‘old-old’) is a useful framework to have a deeper understanding of the target population, identifying differences in perceptions of information credibility on the Web even among older adults. Fisk et al. (2009) mention that older adults tends
to be more heterogeneous than younger age groups due to age-related declines in perception, cognition, and movement control that might affect their interaction with computers and technology. Therefore, it would be more appropriate to use the definition of older adults that covers a wide range of ages (55+) and specifies the sub-groups (i.e., young-old and old-old), rather than relying on a single chronological age cut-off.

Among the total population of American older adults, this research limits the population to older adults who reside in Florida. The proportion of older adults (aged 55+) in Florida (29.78%) is not only significantly higher than the average proportion of the age group in the country (24.86%), but is also the highest among all fifty states (U.S. Census Bureau, 2012). Thus, Florida is a good place to conduct a study with older adults.

In addition, since this research focuses on the credibility assessment of ‘online’ health resources, older adults who have not looked for information online about health/medical issues, such as specific disease or medical problem, certain medical treatment or procedure, how to lose or control weight, and health insurance, will not be included in the research. Focusing on older adults who use online health information will specify the interview processes and help to ensure the validity of the data. In particular, the researcher will recruit ‘active’ online health information users who searched for health information online at least once during last six months. This sampling criterion can also be beneficial from recall perspective.

Lastly, the research will conduct two pre-screen tests before recruit subjects to assure that their cognitive functioning is adequate for the study (see Appendices): a) Short Portable Mental Status Questionnaire (SPMSQ) is used to assess the presence and degree of any intellectual impairment using ten questions that the participants must answer, without referencing outside materials, such as the date, recalling the names of former presidents, and a small subtraction problem (Pfeiffer, 1975); b) Wechsler Memory Scale III (WMS-III) involves reading aloud a short story that the subject must then recall as much as they can (Wechsler, 1997).
Recruitment of the Sample

A sample of Florida residents over 55 years old, whose cognitive functioning is intact, and who have looked for health information online will be sought. This study will utilize a purposive sampling and snowball sampling techniques to recruit subjects who qualify for specific conditions for the research design: 1) age (55+), 2) Florida resident, 3) use of online health information, and 4) intact cognitive functioning.

The Osher Lifelong Learning Institute (OLLI) at Florida State University and Tallahassee Senior Center, in which the researcher collected data for the preceding research (Choi, 2013), will be used as recruitment sites. In addition, the researcher will use the six public libraries in Leon County in Tallahassee, Florida as recruitment sites, as they provide free Internet access for the public as well as offer classes for older adults.

Procedure of Data Collection: Semi-Structured Interview

This study will employ a semi-structured interview as an effective means of data collection to have a comprehensive understanding of older adults’ credibility assessment of online health information. A semi-structured interview is a type of interview that is well-suited for the exploration of the perceptions and opinions of respondents regarding complex issues and provides an additional opportunity to probe for more information and clarification of answers (Barriball & While, 1994).

In terms of types of questions that can be asked in the interview, the semi-structured interview incorporates both open-ended and more theoretically driven questions, eliciting data grounded in the experience of the participant as well as data guided by existing theoretical frameworks regarding the particular research topic (Galletta, 2013). Because no theory has particularly examined older adults’ perceptions of online information credibility, which may be different from younger generations’ perceptions, the semi-structured interview can be a useful
data collection method not only to understand older adults’ Web credibility assessment process, but also to expand the existing theories to an older population.

Furthermore, since older adults have relatively less experience and familiarity with the Internet than younger generations and a wide range of cognitive and physical abilities (Fisk et al., 2009; Robertson-Lang et al., 2011; Zulman et al., 2011), employing the self-administrated data collection methods, such as a survey and diary, may not be appropriate methods to accurately capture older adults’ perceptions of online information credibility. The researcher may need to help older adults understand any ambiguous or difficult-to-understand terms in the questionnaire, if needed. Thus, the semi-structured interview that allows the researcher to utilize the pre-determined questions as well as have the additional opportunity to probe participants’ responses for clarification is beneficial for examining older adults’ Web credibility assessment.

Interview Style

In carrying out the semi-structured interview, the researcher will meet with participants in a one-on-one interaction. Also, the researcher will meet with participants in person (i.e., face-to-face), rather than through telephone or online communication tools.

Interview Protocol

In the preceding research (pilot study) that explored how older adults perceive various credibility markers/cues on health-related Websites (Choi, 2013), the researcher developed an interview protocol based on two existing survey instruments designed by the Stanford Persuasive Technology Lab (Stanford Persuasive Tech Lab, 2014) and the Center for Research and Education on Aging and Technology Enhancement (CREATE, 2014). Since these two instruments covered key concepts of the pilot study and had been used with a large group of people, the validity and reliability of the questionnaires were assumed to be ensured. The research instrument was refined based on the comments from the participants in the pilot study. Also, more items were added, so that the proposed research can address broader research questions than
the pilot study. Overall, the design of the proposed study, including the interview protocol, has been reviewed and approved by the Human Subject Committee at the Florida State University (see Appendices). Table 1 shows the outline of the revised interview protocol.

Table 1
Interview Protocol Overview

<table>
<thead>
<tr>
<th>Question</th>
<th>Information that will be acquired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section A</td>
<td>Internet Use</td>
</tr>
<tr>
<td>A1</td>
<td>Hours of Internet use a week</td>
</tr>
<tr>
<td>A2</td>
<td>Years of Internet use experience</td>
</tr>
<tr>
<td>Section B</td>
<td>Older Adults’ Information Needs</td>
</tr>
<tr>
<td>B1</td>
<td>Older adults’ Information needs (in general)</td>
</tr>
<tr>
<td>Section C</td>
<td>Older Adults’ Health Information Needs and Related Behaviors</td>
</tr>
<tr>
<td>C1</td>
<td>Health-related topics</td>
</tr>
<tr>
<td>C2-1 &amp; C2-2</td>
<td>Sources for health information</td>
</tr>
<tr>
<td>C3</td>
<td>Reasons for using certain source(s) to obtain health information</td>
</tr>
<tr>
<td>C4</td>
<td>Use of health information</td>
</tr>
<tr>
<td>C5</td>
<td>Share of health information</td>
</tr>
<tr>
<td>Section D</td>
<td>Credibility of Online Health Information</td>
</tr>
<tr>
<td>D1</td>
<td>Older adults’ credibility assessment of health-related Websites</td>
</tr>
<tr>
<td>D2-1 to D2-34</td>
<td>Ratings on credibility markers/cues on health-related Websites</td>
</tr>
</tbody>
</table>

Data Analysis

All data acquired from semi-structured interviews will be transcribed. The interview protocol will be used as the main coding schemes to analyze collected data. The computer software, QSR NVivo 10 will be used to aid a systematic coding process, facilitating the management of a large amount of data and memos, classifying themes and relationships between codes. All procedures of data analysis will be focused on looking for logical and systematic relationships and patterns within transcripts.
References


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Informed Consent Form

Introduction to the Study

This dissertation project will explore older adults’ health information seeking and Web credibility assessment behaviors. In particular, this study will explore the ways older adults search for and select health-related websites and will identify a set of cues/markers and heuristics they use to judge credibility of health information.

A doctoral candidate, Wonchan Choi (wc10d@my.fsu.edu), in the School of Information at the Florida State University will be conducting this study.

What Will Happen During the Study

In a semi-structured interview, each participant will be asked to answer questions regarding his or her health information needs and perception of health-related websites’ credibility. Each interview is anticipated to take around 45 minutes to complete. Interviews will be scheduled at a time and place convenient to the participant. Interviews will be tape recorded; transcripts will be prepared with names and any personal identifiers changed. Participants have the right to have the tape turned off at any time during the interview.

Signing this form constitutes informed consent for participation in the study.

If you have questions or concerns about participating in this study, please contact:

Principal Investigator:
Wonchan Choi, Doctoral Candidate
Florida State University School of Information
Email: wc10d@my.fsu.edu
Tel: (850) 570-7051
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IRB Study#: 

Risks

Risks associated with the research are very low and are considered no greater than those of everyday life. All collected data will be confidential, and only pseudonyms will be used in data analysis and subsequent reports and publications. Collected data will be kept on a secure, password protected external hard drive. Primary data will be disposed of 1 year from the end of the project. Minimal risk is associated with the impact on privacy if excerpts from interviews reveal information that may be considered to affect an individual’s privacy.

Benefits of this Project

This study will benefit the studies of older adults’ health information need and associated behaviors, consumer wellness and health informatics, and credibility assessment research. No promise or guarantee of benefits is made to encourage you to participate.

Extent of Anonymity and Confidentiality

Confidentiality is assured to the participants to the extent allowed by law. Publications about the findings from the study will mask the identity of the individual. Interviews will be tape recorded; transcripts will be prepared with names and any personal identifiers changed. Participants have the right to have the tape turned off at any time during the interview. Tapes and transcripts will remain in the possession of the primary investigator.

Participant’s Rights

In accordance with Florida State University (FSU) policy, and as the principal investigator, I would like to assure you that:

- Participation in this study is entirely voluntary.
- If you decide to participate, you are free to withdraw at any time without consequence. You are free to decline to answer any questions that you choose or to request that the tape recorder be turned off at any time during an interview.

All research on human volunteers is reviewed by a committee that works to protect your rights and welfare. If you have any questions or concerns regarding the study and would like to talk to someone other than the researcher, you are encouraged to contact the FSU IRB at telephone number 850-644-7900. You may also contact this office by email at humansubjects@fsu.edu, or by writing or in person at 2010 Levy Street, Research Building B, Suite 276, FSU Human Subjects Committee, Tallahassee, FL 32306-2742.
Participant’s Permission

By signing this form below, you acknowledge that you have read and understood the above statement and consent to participate in this study.

If I participate, I may withdraw at any time. I agree to abide by the rules of this project.

______________________________  ______________________
Signature  Date
**Participant Pre-Screening**

PRE-SCREENING ID: __ __ __ __  DATE: ___ / ___ / ___

P1. Gender:  □  Male  □  Female  Age: ___

P2. What is your highest level of education? Please check the category.
   □  No formal education  
   □  Less than high school graduate  
   □  High school graduate/GED  
   □  Vocational training  
   □  Some college/Associate’s degree  
   □  Bachelor’s degree (BA, BS)  
   □  Master’s degree (or other post-graduate training)  
   □  Doctoral degree (PhD, MD, EdD, DDS, JD, etc.)

P3. How would you describe your primary racial group? Please check the category.
   □  No Primary Group  □  American Indian/Alaska Native  
   □  White Caucasian  □  Native Hawaiian/Pacific Islander  
   □  Black/African American  □  Multi-racial  
   □  Asian  □  Other (specify): ________________

P4. Is English your primary language? Please check the category.
   □  Yes  □  No  
    a) If “No,” what is your primary language? __________________________

P5. Do you have any problems with your vision that cannot be corrected?
   □  Yes  □  No  
    a) If “Yes,” specify __________________________

P6. Do you wear glasses or contacts?
   □  Yes  □  No  
    a) If “Yes,” specify __________________________
P7. Do you have any problems hearing that cannot be corrected?

☐ Yes ☐ No

a) If “Yes,” specify_____________________

P8. Do you wear a hearing aid?

☐ Yes ☐ No

P9. Do you have arthritis in your hands to the extent that it makes it difficult for you to write?

☐ Yes ☐ No

a) If “Yes,” ask subject if they think they would be able to type on a keyboard:

☐ Yes ☐ No
# Short Portable Mental Status Questionnaire (SPMSQ)

<table>
<thead>
<tr>
<th>Test</th>
<th>Question</th>
<th>Wrong</th>
<th>Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>What is the date today?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>S2</td>
<td>What day of the week is it?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>S3</td>
<td>What is your street address?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>S4</td>
<td>What is your telephone number?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>S5</td>
<td>How old are you?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>S6</td>
<td>When were you born?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>S7</td>
<td>Who is the current president of the U.S.?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>S8</td>
<td>Who was the President just before him?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>S9</td>
<td>What was your mother's maiden name?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>S10</td>
<td>Subtract 3 from 20 and keep subtracting 3 from each number, all the way down. 20, 17, 14, 11, 8, 5, 2</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Total number of errors:** ____

0 – 2 errors = intact  
3 – 4 errors = mild intellectual impairment  
5 – 7 errors = moderate intellectual impairment  
8 – 10 errors = severe intellectual impairment

Allow one more error if subject had no grade school education.  
Allow one fewer error if subject had education beyond high school.

Subject Passed: ☐ Yes ☐ No
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Wechsler Memory Scale III (WMS-III)

PRE-SCREENING ID: ___ ___ ___ ___  DATE: ___ ___ / ___ ___ / ___ ___

Story A and B

Say I am going to read a short story to you. Listen carefully and try to remember it just the way I say it, as close to the same words as you can remember. When I am through, I want you to tell me everything I read to you. You should tell me all you can remember even if you are not sure. Are you ready?

Read Story A
Anna / Thompson / of South / Boston, // employed as a cook / in a school / cafeteria, // reported / at the police / station / that she had been held up / on State Street / the night before / and robbed / of fifty-six dollars. // She had four / small children, // the rent was due, / and they had not eaten / for two days. / The police, / touched by the woman’s story, // took up a collection / for her. //

After reading the story, say Tell me everything you can remember about this story. Start at the beginning.

Read Story B
At 6:00 / on Monday / evening, / Joe / Garcia / of San Francisco // was watching television /// as he dressed / to go out. // A weather bulletin / interrupted the program // to warn that thunderstorms / would move into the area / within the next two to three hours / and remain until morning. // The announcer said / the storm could bring hail / and up to four inches / of rain / and cause the temperature to drop / by fifteen degrees. // Joe decided to stay home. / He took off his coat / and sat down / to watch old movies.

Number of elements Story A: ___
Number of elements Story B: ___

For subjects aged 18 – 54: Story A ≥ 7 elements. If failed, Story B ≥ 5.

Subject Passed:  ☐ Yes  ☐ No
Section A – Internet Use

The purpose of this set of questions is to ask your familiarity and experience with the Internet. Please answer all questions by placing a check mark on or filling in the appropriate response.

A1. About how many hours a week do you use the internet?
   - [ ] Never (skip the rest of the questionnaire)
   - [ ] less than one hour a week
   - [ ] between 1 hour and 5 hours a week
   - [ ] between 6 hours and 10 hours a week
   - [ ] between 11 hours and 15 hours a week
   - [ ] between 16 hours and 20 hours a week
   - [ ] more than 20 hours a week

A2. How long have you been using the internet?
   - [ ] Less than 6 months
   - [ ] between 6 months and 1 year
   - [ ] more than 1 year, but less than 3 years
   - [ ] more than 3 years, but less than 5 years
   - [ ] more than 5 years

A3. Have you looked for health-related information online during the past 6 months?
   - [ ] Yes
   - [ ] no
   A) if “no,” when was the last time you searched for health information online? _____
Section B – Older Adults’ Information Needs

The purpose of this set of questions is to ask your information needs for your everyday life. Please answer the following questions.

B1. What are your everyday life information needs, as opposed to work-related information needs? Examples of topics may include health/wellness, shopping, leisure, etc.

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________
Section C – Older Adults’ Health Information Needs and Related Behaviors

The purpose of this set of questions is to ask your information needs for health-related topics. Please answer the following questions.

C1. What are some of your health-related information needs?

____________________________________________________________________________

C2. How do you search for health information?
   C2-1. What source(s) do you use to obtain health information (e.g., physicians, family and friends, websites, social media, etc.)?

____________________________________________________________________________

C2-2. Which online sources do you use to look for health information (e.g., websites, social media, mobile applications, etc.)?
   ▪ Websites:
   ▪ Social media:
   ▪ Mobile applications:

C3. Why do you use the source(s) to obtain health information?

____________________________________________________________________________

C4. Do you use (apply) or act on the health information you obtained?
   □ Yes    □ No

B4-1. If “Yes,” when, why, and how?

____________________________________________________________________________

C5. Do you share the health information you obtain? If yes, when, why, how, and with whom?
   □ Yes    □ No

C5-1. If “Yes,” when, why, how, and with whom?

____________________________________________________________________________
Section D – Credibility of Online Health Information

This section asks you about credibility markers/cues and heuristics on health-related websites. Please tell me what makes health-related websites credibility for you.

D1. How do you evaluate credibility of a health-related website? Which markers/cues on the website make you perceive it as credible?

D2. Please indicate the extent to which you disagree or agree with the following statements by circling the appropriate number in the scale next to each statement:

<table>
<thead>
<tr>
<th></th>
<th>Much Less Credible</th>
<th>Less Credible</th>
<th>Neutral</th>
<th>More Credible</th>
<th>Much More Credible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The site lists the organization’s physical address.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>2</td>
<td>The site has articles containing citations and references.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>3</td>
<td>The site lists authors’ credentials for each article.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>4</td>
<td>The site is arranged in a way that makes sense to you.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>5</td>
<td>The site has been updated since your last visit.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Much Less Credible</td>
<td>Less Credible</td>
<td>Neutral</td>
<td>More Credible</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------------</td>
<td>---------------------</td>
<td>---------------</td>
<td>---------</td>
<td>---------------</td>
</tr>
<tr>
<td>6</td>
<td>The site was recommended to you by a friend (non-expert).</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>7</td>
<td>The site was recommended to you by a doctor.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>8</td>
<td>The site represents a nonprofit organization.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>9</td>
<td>The site has ratings or reviews of its content.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>10</td>
<td>The URL for the site ends with “.org”</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>11</td>
<td>The site recognizes that you have been there before.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>12</td>
<td>The site has one or more ads on each page.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>13</td>
<td>The site requires a paid subscription to gain access.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>14</td>
<td>The site takes a long time to download.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>15</td>
<td>The site is rarely updated with new content.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>16</td>
<td>The site links to a site you think is NOT credible.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>17</td>
<td>The site represents an organization you respect.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>18</td>
<td>The site gives a contact phone number.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>19</td>
<td>The site is by organization that is well respected outside of the Internet.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>20</td>
<td>The site looks professionally designed.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
<tr>
<td>21</td>
<td>The site gives a contact email address.</td>
<td>-2</td>
<td>-1</td>
<td>0</td>
<td>+1</td>
</tr>
</tbody>
</table>
22. The site states its policy on content. | Much Less Credible | Less Credible | Neutral | More Credible | Much more Credible |
--- | --- | --- | --- | --- | --- |
23. The site is linked to by a site you think is believable. | -2 | -1 | 0 | +1 | +2 |
24. The site provides links to its competitors’ sites. | -2 | -1 | 0 | +1 | +2 |
25. The site displays an award it has won. | -2 | -1 | 0 | +1 | +2 |
26. The site is small (e.g. less than five pages). | -2 | -1 | 0 | +1 | +2 |
27. The site has a commercial purpose (as opposed to academic). | -2 | -1 | 0 | +1 | +2 |
28. The site is sometimes unexpectedly unavailable. | -2 | -1 | 0 | +1 | +2 |
29. The site automatically pops up new windows with ads. | -2 | -1 | 0 | +1 | +2 |
30. The site has typographical errors. | -2 | -1 | 0 | +1 | +2 |
31. The site has links that do not work. | -2 | -1 | 0 | +1 | +2 |
32. This site is complete in the information it provides. | -2 | -1 | 0 | +1 | +2 |
33. The site provides information that is neutral. | -2 | -1 | 0 | +1 | +2 |
34. The site tries to cover all the different approaches to the issue. | -2 | -1 | 0 | +1 | +2 |
35. The site is customizable according to your preference. | -2 | -1 | 0 | +1 | +2 |

**Thank You!**