

# Developing a Theoretical Framework for Web Credibility Assessment—A Case of Social Q&A Sites: Preliminary Findings



Wonchan Choi<sup>1</sup> & Besiki Stvilia<sup>2</sup>

<sup>1</sup>School of Information Studies, University of Wisconsin-Milwaukee; <sup>2</sup>School of Information, Florida State University

#### Introduction

- Social question-and-answer (Q&A) allow users to "ask and answer question, evaluate content submitted by others, and view the com-munity's aggregate assessment of which questions, answers, and users are best."<sup>[1]</sup>
- Characterized by their content-focused and collaborative nature, Q&A sites allow users to express their information needs as questions in natural language and obtain answers based on the community's collective knowledge.
- Relatively less research has focused on web credibility issues in social Q&A sites.

### **Theoretical Background**

- Two-factor model of credibility<sup>[2]</sup>
  - Trustworthiness: Perceived willingness of the source to provide high quality information
  - Expertise: Perceived ability to provide high quality information
- Web credibility framework<sup>[3]</sup>
  - o Operator (author): Source characteristics
  - o Content: Attributes of the content
  - Design: Design elements related to organizational, technical, aesthetic, and interactive features of the site
- Extended typology of web credibility (Table 1)<sup>[4]</sup>

|          | Trustworthiness             | Expertise          |
|----------|-----------------------------|--------------------|
| Operator | Operator<br>Trustworthiness | Operator Expertise |
| Content  | Content<br>Trustworthiness  | Content Expertise  |
| Design   | Design Trustworthiness      | Design Expertise   |

Table 1. Six types of web credibility

## **Study Design**

- To develop a platform-type specific framework for web credibility assessments, a three-phased study was conducted.
- Phase 1 Literature Analysis: To understand how previous studies on social Q&A sites or similar peer knowledge production communities have conceptualized and operationalized the credibility of information on such sites
- Phase 2 Synthesis of Findings of Phase 1: To create a conceptual framework for web credibility assessments of social Q&A sites.
- Phase 3 Content Analysis: To test and refine the framework by analyzing two specific cases—the Stack Exchange network of Q&A sites and Wikipedia Reference Desk.
  - Note: The current poster reports on preliminary findings of the first two phases.

# **Findings & Discussion**

- Phase 1: Twenty-one criteria for web credibility assessment of social Q&A sites have been identified.
- Phase 2: An extended typology of web credibility for social Q&A sites, categorizing the 21 criteria into six types of web credibility has been proposed (see Table 2).
- Existing frameworks focus more on contentrelated attributes (e.g., evidence-based, semantic clarity), but less on operator- or author-related attributes (e.g., credentials).
- Design-related attributes (e.g., interactive design) were rarely included in the frameworks, which warrants further investigation on the potential influences of design on people's web credibility assessments of social Q&A sites.

|          | Trustworthiness                             | Expertise  |
|----------|---|--|
| Operator | Operator (author) trustworthiness:          | Operator (author) expertise: • Credentials • Reputation  |
| Content  | Content trustworthiness:                    | Content expertise:      Accuracy     Evidence-based     Novelty     Reinforcement     Semantic Clarity/     Comprehensive     Structural     Complete     Usefulness |
| Design   | Design trustworthiness: • Responsive Design | Design expertise:  • Appropriate Design • Ease of Use  |

Table 2. Proposed typology of web credibility assessments in social Q&A sites

#### References

- [1] Gazan, R. Social Q&A. Journal of the American Society for Information Science and Technology 62(12), 2301–2312 (2011).
- [2] Hovland, C. I., Janis, I. L., Kelley, H. H: Communication and persuasion. Yale Uni-versity Press (1953).
- [3] Fogg, B. J. Persuasive technology: Using computers to change what we think and do. Elsevier (2003).
- [4] Choi, W., Stvilia, B.: Web credibility assessment: Conceptualization, operationaliza-tion, variability, and models. Journal of the Association for Information Science and Technology 66(12), 2399–2414 (2015).

#### **Contact Information**

Wonchan Choi, PhD, Assistant Professor, School of Information Studies, UW-Milwaukee; Email: wchoi@uwm.edu