

Authority and Trust in Information

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BACKGROUND

As information science becomes better grounded in late-modernity's notions of pluralism and interpretative facts, many of the services and systems that information science have traditionally been associated with are being challenged to justify themselves as cognitive authorities. Further, designers and developers are being challenged to consider how information sources, systems, and services are trusted by users, what constitute authority and how that it is expressed, and how credibility plays out in a world of infinite choice and opinions. While *relevance* was once a central challenge in information science, *authority and trust* are quickly becoming the defining aspects of systems, services and sources. This panel will explore the notions of authority and trust from multiple perspectives and offer insights from across the broad spectrum of information science, incl. specific technologies, epistemologies, media, traditions, etc.

The panel will offer insights from leading scholars in the area and give the audience opportunity to interact with the

panelist and each other about key questions that need to be address with respect to authority and trust in information.

FORMAT

The topic will briefly be introduced by the moderator and each panelist will give a short (approx. 10 min) presentation in which they outline their take on the major challenges facing the development of authoritative and trustworthy information systems and services. Each panelist will propose two-three key questions that should be addressed by information science and practice in the near future. After the panelists have given their presentations, the audience is encouraged to engaged with the panel and each other about the topic. The moderator will facilitate the discussion and the key questions proposed by the panelists will be used as the springboard for the discussion. The aim of the discussion, and of the panel in general, is to bring about an awareness of the challenging issues that lie ahead of information science and practice and advance the discourse about bring authority and trust in information.

PRESENTATIONS

An Analysis of Disinformation

Don Fallis, University of Arizona

Many information scientists are now developing techniques for finding information that is not just relevant, but that meets certain *quality* standards. A popular strategy is to identify features of websites that will allow people to distinguish between accurate and inaccurate information on the Internet. Unfortunately, research in this area typically fails to differentiate among the various *types* of inaccurate

information. For example, is the inaccuracy due to an honest mistake, negligence, or intentional deception? After all, one would certainly use different clues to detect that someone is lying than one would use to determine that she just does not know what she is talking about. But before we can try to identify these different clues, we need to know exactly what the different types of inaccurate information are. Toward this end, this paper will offer an analysis of *disinformation* (i.e., intentionally deceptive information).

Key questions: i) What is disinformation? ii) And how can it be identified?

Justifying Trust in Social Media Environments

Melanie Feinberg, University of Texas at Austin

Social media applications, such as Flickr and Facebook, rely on users to contribute both content and metadata to describe that content. On the one hand, through their impartial acceptance of both resources and descriptive information, these systems enable the aggregation of many different viewpoints, increasing their comprehensiveness and, therefore, potentially their trustworthiness. However, given the difficulty of understanding the true semantic complexity behind any individual contributor's decisions, such distributed authority is at best unreliable. At worst, these systems belie their emancipatory promise by reinforcing the existing biases of their users, both contributors and information seekers. In contrast, true authority is achieved only when an information seeker is actively convinced by a contributor's vision, when the seeker accepts the contributor's rhetorical argument. In this presentation, I explore the implications, for both designers and users of information systems, of accepting that information authority flows from development of a successful rhetorical strategy.

Key questions: i) What factors contribute to a successful rhetorical strategy for user-contributed metadata? ii) How can aggregated metadata from multiple user contributors achieve rhetorical success, and thus trustworthiness? and iii) How can systems of user-contributed content and metadata challenge audience impressions instead of reinforcing them?

A Heuristic Approach to Credibility and Authority Assessment

Soo Young Rieh, University of Michigan

The fields of communication and information science have both long been concerned with the concepts of credibility and authority. In the communication field, research focuses on examining how an individual constructs, conceptualizes, and defines credibility and authority. Since 1953 when the two classic notions of credibility – trustworthiness and expertise – were first proposed, more than several dozens of concepts have been suggested to operationalize credibility,

such as believability, authority, accuracy, reliability, and completeness. While this research approach is useful in that it provides a particular point of view about credibility and authority assessment, it calls for investigating human perceptions without taking into account people's associated actions or behaviors. Within the field of information science, a series of user-based relevance studies identified credibility and authority as particular aspects of human judgments about information. As a result, research within this field tends to carry over the tradition of relevance criteria studies, focusing on identifying factors or criteria that influence people's credibility and authority judgments. What have been missing from both fields until recently is a heuristic approach which suggests that people apply mental shortcuts or rules of thumb in order to minimize the amount of cognitive effort and time to make these judgments. Heuristics enable individuals to quickly make credibility and authority assessments without much need for substantial examination of a piece of information or its source. In this presentation, I will discuss why a heuristic approach is key to reaching a more comprehensive understanding of people's credibility and authority assessments within the information-abundant online environment.

Key questions: i) How are credibility and authority judgments related to relevance judgments? ii) How can we accumulate research on information authority, credibility, quality, and trust across different approaches developed in various disciplines? and iii) What theoretical bases and research findings can be drawn from credibility and authority research for digital literacy concepts and skills?

Collaborative Q&A Sites

Pnina Shachaf, Indiana University

Similar to other Web 2.0 platforms, user-created content on collaborative question-answering (Q&A) sites raises concerns about information quality. Communities of amateurs that answer questions on these Q&A sites challenge traditional information services providers. A new model of collaborative information intermediation (social reference) emerges. Under this model the role of the expert and the notion of professional authority are being questioned; authority is shared, decentralized, and negotiated over time. While collaboration and decentralization can potentially improve answer quality, this potential is overshadowed by a handful of challenges that lead to significant differences in answer quality. Significant differences in answer quality across Q&A sites are also evident. For example, although the Wikipedia Reference Desk provides answers that are as accurate as libraries do, the most popular Q&A site, Yahoo! Answers, provides less accurate answers. Even as shared authority and collaboration do not always result in better outcomes, information professionals should not dismiss the potential

benefits of the new model of collaborative information intermediation.

Key questions: i) What are the implications of the increased popularity of collaborative Q&A sites on the future role of reference services? ii) Would crowdsourcing (reference work) be the answer to declining budgets of our cultural institutions?

BIOS

Jens-Erik Mai is Associate Professor in the Faculty of Information at the University of Toronto, where he previously served as Vice Dean and Acting Dean. Jens-Erik's research interests lie in the broad area of representation and organization of information; his current scholarship questions the conceptual foundation of classification and it seeks to establish an epistemological foundation that accepts the plurality of interpretations across communities. He has published on conceptual and methodological issues in the organization and representation of information; esp. about semiotics, theoretical frameworks, indexing theory, domain analysis, and cognitive work analysis. His most recent publications explore the authority and trust in information organization systems and services.

Don Fallis is Associate Professor of Information Resources and Adjunct Associate Professor of Philosophy at the University of Arizona. He works primarily in the area of Applied Epistemology. That is, he applies philosophical theories to concrete questions about the acquisition of knowledge. For example, how can people acquire knowledge from the information that they find on the Internet? His articles have appeared in the *Journal of Philosophy*, *Library Quarterly*, and the *Journal of the American Society for Information Science and Technology*.

Melanie Feinberg is Assistant Professor in the School of Information at the University of Texas at Austin. Melanie's research interests encompass the theory, design, and evaluation of knowledge organization schemes. Melanie asks how various types of organizational schemes work, and how they might work better or differently. Recently, she has examined how collections of organized resources function as communicative artifacts, identifying the rhetorical mechanisms by which such collections inform, persuade, and entertain an audience, and describing design activities that facilitate the systematic, purposeful creation of such collections.

Soo Young Rieh is Associate Professor in the School of Information at the University of Michigan. Rieh's research focuses on investigating human judgments of information credibility, information quality, and cognitive authority within various types of information behavior contexts. She is currently the PI of the Credibility Assessment in the Participatory Web Environment Project (<http://credibility.si.umich.edu/>). With funding from the MacArthur Foundation, this project investigates a new set of credibility assessment heuristics employed by participatory Web users when engaging with Web 2.0 tools and applications. She is also a Co-PI for the BiblioBouts Project (<http://bibliobouts.si.umich.edu/>). This project, which is funded by the Institute of Museum and Library Services, focuses on developing an online game to teach undergraduate students how to find, manage, and evaluate information using different types of online resources.

Pnina Shachaf is Associate Professor at the School of Library and Information Science, Indiana University, Bloomington, where she is the Director of the MLS Program. Her research focuses on information intermediation (digital reference and social reference) and on the interaction between cultural diversity and ICT in virtual teams and online communities. Her publications appeared in the *Journal of the American Society for Information Science and Technology*, *Information and Management*, *Journal of Documentation*, *Library & Information Science Research*, and *Journal of Information Science*.