Making the Invisible, Visible: A Study of the Relationship and Impact of Information Science on Scientific Consensus

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ABSTRACT

This poster analyzes consensus methods (e.g., CDP, Delphi, RAM, and NGT) by experts in scientific and technological contexts. Consensus methods provide opportunities for experts in different geographical locations and organizations to come together to deliberate and define their level of agreement on a complex topic (e.g., public health, environment, technology use). These experts are authoritative knowledge seekers with high H-Index scores and honorific society memberships. For these very reasons, their recommendations shift paradigms and influence policies. However, there are times when group deliberations lead to multiple and contradictory recommendations.

Three research questions were developed for this study: How do experts reach a consensus? What information-seeking behaviors do they employ (using retrieval systems and software applications? Lastly, how do they understand consensus development processes? I applied ethnographic methods, including document analysis and retrospective experience, to collect data, and used data visualization to present preliminary insights.

Preliminary insights remove ambiguity in defining what consensus is and what it is not. Based on a historical analysis of scientific consensus, four significant shifts that have led us to modern-day consensus methods is described, and a process for which experts negotiate agreement is explained. Finally, there is a call to action for information professionals and LAM institutions to push back against invisible labor in order to convey how our profession, in particular, our subject matter expertise and systems knowledge, significantly impacts scientific consensus development.

ALISE RESEARCH TAXONOMY TOPICS

Information seeking; Sociology of information; Computer-supported collaborative work; Discovery systems; Machine learning

AUTHOR KEYWORDS

Consensus development; Collaborative Information-Seeking; Judgment; Negotiation; Recommendation