

Implications and Potential Impacts of Information Behavior Research

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Abstract

This pilot study identifies how information behavior (IB) researchers address implications and potential impacts of their study results—the “so what?” questions. Thirty IB research articles were randomly selected from refereed journals published in the U.S. and Canada between 2008 and 2012. Each article was coded to capture types and characteristics of their stated implications. Twenty-three articles offered practical implications and seven provided both scholarly and practical implications. This poster presents the patterns of implications generated by the articles analyzed. We make suggestions to facilitate generating stronger implications, which will ultimately strengthen the impact of IB studies and contribute to advancing IB research.

Keywords: Information behavior; user studies; research implications

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1 Introduction

Information behavior (IB) research investigates people’s behavior, cognitive activities, and affective states when interacting with information (SIG USE, 2014). This pilot study, a content analysis of empirical IB research, identifies how authors address implications and their potential impacts—i.e., the “so what?” question. While it is critical that researchers clearly delineate the implications and impacts of their study results (Powell & Connaway, 2004), IB research has been criticized for its quality and lack of practical and scholarly implications (Fidel, 2012; Case, 2012).

The research questions are:

How does current IB research address the implications and/or impacts of its findings?

- a) What are the patterns of the implications and impacts generated by IB research?
- b) What needs to be improved in addressing the implications and impacts of IB research?

We defined “implications” as authors’ explicit statements about how their studies’ results extend professional and scholarly research boundaries. The definition includes both who implements and who benefits from the implications. This effort is significant to understanding what implications and contributions the field has made and how effectively IB researchers communicate the implications of their findings. Measuring actual impacts of each project is beyond the scope of this study; rather, it focuses on identifying how authors report implications, impacts, and contributions.

2 Literature Review

Little research has comprehensively investigated how IB researchers address implications of their findings. McKechnie, Julien, and Oliphant (2008) examined if and how results of IB research applied to the work of library and information science practitioners. They conducted a content analysis of 117 research papers from the 2006 ISIC (Information Seeking in Context) proceedings, finding that 59% included practical implications, but most (57%) were vague. Their study did not address scholarly implications. Vakkari (2008) analyzed papers from the 1996 and 2008 ISIC conferences, finding that 56% from 2008 did not identify specific contributions. Fidel (2012) analyzed 42 articles from the 2006 and 2008 ISIC conferences, noting that 48% “offered no contribution, either to research or to practice” (p. 156). This study extends previous studies by reviewing research in peer-reviewed journals rather than conference proceedings, extends beyond 2008, and offers in-depth analysis of the types of implications IB studies generate.

3 Research Design

This analysis examined IB research published in English between 2008 and 2012 in the U.S and Canada. The researchers conducted advanced searches to identify IB literature meeting the following inclusion criteria (Table 1) in the LIBLIT, LISTA, and LISA databases.

Parameters	Inclusion Criteria	Exclusion Criteria
Location	US/Canada	Non-US/Canada
Language	Studies written in English	Studies not written in English
Time Frame	Studies published between Jan. 1, 2008 and Dec. 31, 2012	Studies published before Jan.1, 2008 or after Jan. 1, 2013
Publication Type	Peer-reviewed, scholarly articles that reported the methodology used	Articles that did not report a methodology (e.g., data collection or analysis methods)

Table 1. Literature Selection Criteria (Peer-reviewed IB research articles)

A total of 255 articles were collected. Using simple random sampling, 30 articles were selected. Appendix 1 shows the list of journals and the number of articles from each. Appendix 2 shows the number of articles by year. We developed a codebook to capture types and characteristics of implications explicitly stated in each article. Each researcher read 10 identical articles to determine important elements for answering the research questions. We continued analyzing identical articles in sets of five until achieving intercoder reliability, revising the codebook as necessary. All three researchers analyzed the random sample of 30 articles.

4 Findings

All 30 articles presented implications of their findings to various degrees. Twenty-three (76.7%) offered practical implications; seven (23.3%) included both scholarly and practical implications. None contained only scholarly implications.

4.1. Practical Implications

Most studies discussing practical implications did so for librarians and information professionals. Other studies with practical implications offered suggestions that could be implemented by system designers, knowledge managers, policymakers, university administrators, faculty, etc.

The articles often identified beneficiaries of the findings. These were primarily users: university library patrons, working women, farmers, scholars, lawyers, patients, health information users, students, and adolescents. Many articles suggested librarians and system developers as who would both implement and benefit from the findings. Authors often stated implications to be implemented by practitioners with benefits for users. For example, one article noted that “[I]nformation on barriers or facilitators of health-related Web use behavior can be a ground for practitioners to develop certain policies or services for facilitating the use of health-related Web sites for a certain group of users....” Another article indicated that the researchers collaborated with people who could implement their findings: “We have reported these findings to the administrators of the University Libraries to initiate improvement of wayfinding systems [who have] made efforts to redesign signs and provide simpler floor maps.”

4.2. Scholarly Implications

Seven articles (23.3%) generated scholarly implications. Three of these used theoretical frameworks for their studies. Scholarly implications included methodological contributions, theory testing, model building, and generating knowledge or deepening understanding of phenomena under investigation. Many articles in our sample came from professional journals (see Appendix 1), aiming to address practice rather than theory.

4.3. Author Affiliation

Thirteen articles (43.3%) were written by scholars, 13 by practitioners (43.3%), and four (13.3%) were collaborations between scholars, professionals, and industry researchers.

4.4. Location

Nineteen (63.3%) articles stated implications in multiple locations, usually the abstract, body, and end. Eleven (36.7%) contained implications at the end, i.e., discussion or conclusion. One from the *Journal of the Medical Library Association* provided implications in a page inlay.

5 Discussion and Implications

5.1. Professional Implications towards User-Centered Systems and Services

Our sample indicated that IB studies contribute to multiple areas and people: education, health professions, archivists, system designers, lawyers, and more. Generally, authors did a fine job of stating practical implications. Our findings suggest that IB research plays a significant role in designing and developing user-centered information systems and services. For example, one author stated: “When we have better information about how people interact with our virtual resources, we can design more effective websites...” Implications commonly included suggestions for improving practice, such as “to maximize their use..., library resources must be accessible via departmental websites.” It was promising that some authors communicated their findings to library administrators to implement changes based on research evidence; one article showed that a user study influenced collaboration on re-design of library space and services.

5.2. Lack of Connections between Studies

Although each study successfully generated findings to solve problems in constrained contexts (e.g., specific libraries), we did not find explicit efforts to forge connections among studies or promote the accumulation of research-based knowledge. Most studies aimed to solve functional problems and improve practices instead of advancing theories or scientific progress. Yet, an effort to compare findings and create commonalities between discrete studies seems necessary to avoid amassing similar projects with limited usefulness.

5.3. Scholarly Implications

It was unexpected that findings included few scholarly implications. Previous reviews of IB research have been concerned about the applicability of research to practice (Case, 2012; McKechnie, Julien, and Oliphant 2008; Fidel, 2012). Also, a majority of articles in this study were not grounded in theory, although Fisher et al. (2005) suggested IB researchers are among the highest users of theory within LIS research.

The discrepancy between our findings and previous reviews could be explained by different samples. Our samples comprised articles in refereed journals published in the U.S. and Canada. The randomly selected 30 articles came from different peer-reviewed journals but mostly from professional journals, suggesting that more journals are geared toward professionals rather than scholars. Previous studies examined ISIC conference proceedings. Participants and audiences of the conference are likely scholars, researchers, and university faculty, therefore resulting in more scholarly implications.

5.4. Location of Implications

Displaying implications prominently was particularly effective, especially in structured abstracts with implications sections. Implications were also highly noticeable in page inlays.

5.5. Types of Implications

Two broad categories emerged: vague implications and specific implications. Vague implications merely stated *what* the implications were; often they were broad and sweeping and/or strayed from study findings. For example, one study stated: “Information professionals can analyze the findings of the study and design, develop, and introduce new library and information services for humanists.” This implication suggested readers should analyze the findings without offering specific impacts. Other articles provided implications with little relevance to actual findings.

Conversely, specific implications addressed *what* the implications were, stating *why* they were significant, *how* they might be implemented, *who* could implement the findings, *who* benefited from them, and how the findings linked to the implications.

6 Conclusion

This pilot study examined implications generated by IB research, providing different perspectives from previous studies. Based on the protocol developed in this study, we will conduct a more comprehensive review of IB research and expand our findings. We suggest several recommendations to encourage stronger and clearer implications:

- Authors should avoid broad and sweeping implications, and ground them in the findings.
- Authors should clearly state what the implications are, why they are significant, how they may be implemented, who could implement the findings, and who benefits from them.
- Journals should encourage authors to state their implications clearly, perhaps providing templates for structured abstracts and/or page inlays requiring explicit presentation of implications and potential impacts.
- Because most studies providing practical implications did not use theory, closer relationships between theory, practice, and research must be created to advance the IB field.

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Table 1. Literature Selection Criteria (Peer-reviewed IB research articles)	2
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Appendix 1: Pilot Study Sample Journal List

* Numbers in parentheses indicate the number of articles for each journal.

Library Philosophy & Practice (9), The American Archivist (1), Journal of Archival Organization (1), Library Trends (1), Science & Technology Libraries (1), College & Research Libraries (2), Journal of Organizational and End User Computing (1), Georgia Library Quarterly (1), Journal of the Medical Library Association (1), Journal of Medical Internet Research (1), Behavioral and Social Sciences Librarian (1), JASIS&T (5), Journal of Map & Geography Libraries: Advances in Geospatial (1), Journal of Library Administration (1), Reference and User Services Quarterly (1), and Medical Reference Services Quarterly (2).

Appendix 2: Pilot Study Sample Journal List

* Numbers in parentheses indicate the number of articles for each year

2008 (4), 2009 (3), 2010 (10), 2011 (5), and 2012 (8)