Research Collaboration by Practitioners in Computer Science, Library Science, and Management

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abstract: This study investigated and compared the proportions and trends of coauthored articles by practitioners in the three fields of computer science, library science, and management. The primary practitioners writing articles in these three fields were engineers, librarians, and consultants, respectively. Practitioner authors were scarce, however, in computer science and management. The author of this study analyzed articles published in nine selected journals in each field indexed by Journal Citation Reports between 2005 and 2014. The proportions of articles in library science coauthored either by practitioners only—that is, by librarians—or by both practitioners and researchers were considerably higher than those in computer science and management. Articles coauthored by practitioners and researchers in computer science increased slightly over the study period, whereas such articles decreased slightly in both library science and management.

Introduction

Research collaborations have become prevalent in many fields of scholarship. Researchers form collaborations because of the increasing complexity of research problems, the advantages of collaboration, and encouragement from science policies. Scholars have already studied several types of research collaboration, including domestic versus international, within institutions versus between them, and intradisciplinary versus interdisciplinary. Other types of research collaboration have been neglected, however, including joint efforts between practitioners and nonpractitioners. One possible reason is that researchers are the primary knowledge producers and frequently collaborate with other researchers. Practitioners contribute practice-oriented rather than theoretical knowledge, and so they make only limited contributions to research collaborations. Scholars have explored research collaborations at different levels,
such as the individual, institutional, and country level. Bibliographic records provide little detailed information about individual collaborations, however, forcing researchers to employ more laborious methods to collect data.

**Practitioners contribute practice-oriented rather than theoretical knowledge, and so they make only limited contributions to research collaborations.**

Although coauthored articles have increased in numerous disciplines, this paper will discuss the different rates of increase for articles generated from the various types of research collaboration.\(^9\) It will also present the changes in coauthored articles produced by each type of collaboration, to clarify the differences in trends.

This study examined three disciplines—computer science, library science, and management. The author selected these three because this study is one of a series investigations and an extension of a similar study in the field of library and information science (LIS). Computer science and management have a close disciplinary relationship with LIS. Citation studies have indicated that computer science and management were the primary disciplines supporting the development of LIS.\(^10\) Certain LIS programs include a focus on computer science or management, such as business information courses,\(^11\) knowledge management,\(^12\) and information and communications technology.\(^13\) LIS, consisting of library science and information science, is a typical interdisciplinary field,\(^14\) but library science and information science differ.\(^15\) In addition, a close relationship exists between information science and computer science.\(^16\) Therefore, the author chose library science, not LIS, as one of the subjects for this study.

The main research questions of this study were:

1. Are there trends of increasing article coauthorship by practitioners in computer science, library science, and management?
2. Who are the primary practitioner authors in computer science, library science, and management?

**Literature Review**

Scholars have recognized researcher-practitioner gaps across many disciplines and have discussed such gaps within computer science,\(^17\) LIS,\(^18\) and management.\(^19\) Ronald Powell, Lynda Baker, and Joseph Mika investigated LIS practitioners’ involvement in research.\(^20\) Debra Shapiro, Bradley Kirkman, and Hugh Courtney verified the research-practitioner gap in both knowledge production and knowledge transfer in the field of management.\(^21\) Basil Tucker and Lee Parker investigated senior management researchers and found most agreeing that research should engage with practice.\(^22\)

The different characteristics of researchers and practitioners have led to the researcher-practitioner gap. Practitioners want timely solutions for their real-world problems, whereas researchers dedicate themselves to probing theories over a long period.\(^23\) The two groups value different aspects of knowledge and have different knowledge bases.\(^24\) These differences mean that practitioners are not the primary collaborators of researchers.
However, G. Jan van Helden, Harrie Aardema, Henk ter Bogt, and Tom Groot reported that, although researchers have a high interest in exploring theoretical problems, some are also concerned with applied knowledge.25 By contrast, practitioners’ research problems are grounded in practice and disconnected from academic research. These contrasting motives influence the types of knowledge created by researchers and practitioners, while also accounting for the separate information sources used by each. Although most researchers rely on academic and professional journals, practitioners require knowledge from both theoretical and practical sources. Practice-oriented researchers and research-oriented practitioners stimulate and facilitate collaborations between the two groups. Encouraging practitioners to publish and collaborate with researchers can also narrow the gap between research and practice.

Management researchers have discussed the researcher-practitioner gap more than computer science researchers have, including influencing factors and research-practice collaborations.26 Andrew Van de Ven and Paul Johnson divided the researcher-practitioner gap into three types of problems: knowledge production, knowledge transfer, and knowledge of theory and practice.27 Among the possible forms of collaboration, researcher-practitioner collaborations have particularly suffered because of the barriers in communicating across different knowledge bases.28 Some authors have identified means of promoting collaboration, such as establishing organizations dedicated to facilitating and supporting joint efforts by researchers and practitioners29 and developing a relational scholarship of integration.30

Few studies in LIS and management have focused on the publications coauthored by researchers and practitioners, and none have done so in computer science. Rick Vogel investigated 892 articles on German public management published between 1989 and 2005, finding that only 1.7 percent of the articles were cowritten by researchers and practitioners.31 Researcher-practitioner collaborations were not the focus of Vogel’s study, however, and he reported no further relevant findings. Shona Morgan and Carin Lightner-Laws found a higher proportion of researcher-practitioner coauthored articles (approximately 9 percent) in supply chain management, based on articles published between 2001 and 2010 in 14 related journals.32 Some journals published more academic-practitioner coauthored articles than others. Morgan and Lightner-Laws and Vogel divided practitioners into five categories, namely businessmen, government staff, consultants, foundation staff, and others, classifying them according to their institutional affiliations. This study uses different criteria.33

**Methodology**

**Data Collection**

This study sampled English-language research articles published in nine computer science journals, nine library science journals, and nine management journals between
2005 and 2014. The author selected management journals from the subject category of "management" in the 2013 version of *Journal Citation Reports*, an annual publication of Clarivate Analytics that provides information about scholarly publications in the natural and social sciences. She chose computer science journals from seven related subject categories: “computer science, artificial intelligence,” “computer science, cybernetics,” “computer science, hardware & architecture,” “computer science, information systems,” “computer science, interdisciplinary applications,” “computer science, software engineering,” and “computer science, theory & methods.” She selected library science journals from the subject category “library science and information science.” Journal titles containing the keyword “library” or “libraries” were classified as library science journals.

The author considered candidate journals for their five-year impact factor values and detailed author information, such as institution names and job titles. She examined the journal with the highest impact factor first, to determine whether articles published between 2005 and 2014 listed the detailed author information required to classify each author as a researcher or practitioner. The period for the study was limited to 10 years. Because the number of candidate library science journals was much lower than that of computer science or management journals, the author examined the library science journals first, according to the requirements. Most journals provided only institution and department names, meaning that the type of author could not be identified. For example, graduate students could not be distinguished from faculty members. A few journals provided job titles only for certain years within the research period. Journals not providing the required information were excluded. Only nine library science journals met the journal selection requirements. As a result, the author selected the same number of computer science journals and management journals. She identified nine computer science journals providing the necessary details. The procedures for determining the nine management journals were the same.

The nine selected library science journals were

1. *College & Research Libraries*,
2. *Electronic Library*,
3. *Information Technology and Libraries*,
4. *Journal of the Medical Library Association*,
5. *Library & Information Science Research*,
7. *Library Resources & Technical Services*,
8. *Library Trends*, and

The nine management journals were

1. *Academy of Management Perspectives*,
2. *Journal of Business Logistics*,
3. *Journal of International Business Studies*,
4. *Journal of Organizational Behavior*,
5. *Journal of Supply Chain Management*,
7. MIS [management information systems] Quarterly,
8. Organization Studies, and

The computer science journals, selected according to the same process and requirements, were

1. IEEE [Institute of Electrical and Electronics Engineers] Communications Surveys and Tutorials,
2. IEEE Network,
3. IEEE Transactions on Evolutionary Computation,
4. IEEE Transactions on Fuzzy Systems,
5. IEEE Transactions on Industrial Informatics,
6. IEEE Transactions on Pattern Analysis and Machine Intelligence,
7. IEEE Transactions on Systems, Man, and Cybernetics, Part B: Cybernetics,
8. IEEE Wireless Communications, and

Eight of the nine selected computer science journals were IEEE journals. Although numerous computer science journals with higher five-year impact factor values were representative samples, they did not meet the journal selection requirements.

Data Processing and Analysis

The author collected bibliographical records of English-language research articles from the Scopus database, a large, multidisciplinary index of citations and abstracts. The basic bibliographical data for each article included its title, authors’ names, journal title, publication year, volume and number, and page numbers. Because the database does not provide job titles, the author examined the full texts of the coauthored articles. The information for a few authors was incomplete. In these cases, the author searched the Internet to find the missing details. If this information could not be found, that article was excluded.

The investigator classified the authors as researchers, practitioners, students, or other, according to their attributes. Researchers were defined as people whose primary task is to conduct research, whether at academic institutions, companies, or other organizations. The data processing in this study differs from that in related studies, which regarded researcher-practitioner collaborations as university-industry collaborations. Once the authors were classified, the coauthored articles were divided into seven categories according to the authors:

1. articles by researchers;
2. articles by researchers and students;
3. articles by practitioners and researchers;
4. articles by practitioners, researchers, and students;
5. articles by practitioners;
6. articles by practitioners and students; and
7. articles by students.
Results

Research Collaboration by Type

Table 1 shows the distributions of the seven types of research collaboration in the computer science, library science, and management fields. Coauthored articles prevailed in all three fields; however, the rate of single-authored articles was much higher in library science than in computer science or management. There were large differences in the distribution of articles among the three fields, except for articles coauthored by practitioners, researchers, and students; by practitioners and students; and by students.

In computer science, 81.4 percent of coauthored articles resulted from researcher-researcher and researcher-student collaborations. Although articles coauthored by researchers and practitioners accounted for the third largest proportion among the seven types, there was a large difference between the second- and third-largest types of coauthored articles (37.9 percent versus 6.6 percent).

In management, researcher-researcher collaboration also ranked as the dominant collaboration type, followed by researcher-student collaboration. However, there was a large difference between the proportion of articles coauthored by researchers and that written by researchers and students (64.2 percent versus 11.1 percent). The proportion of researcher-practitioner articles in this field was lower (4.4 percent) than that in computer science. No practitioner-student or student-student collaborations were identified. Pearson's chi-squared test (p = 0.00 < 0.05), a statistical test used to compare observed data with the results expected, confirmed the existence of a significant statistical difference in the type of collaboration between computer science and management. In library science, approximately half the articles (50.6 percent) were produced by researcher-researcher, practitioner-researcher, and practitioner-practitioner collaborations. Both the proportion of articles coauthored by practitioners and researchers and the proportion coauthored by practitioners were much higher than those in computer science and management. A large proportion of practitioner authors were library science practitioners—that is, mostly librarians. Pearson's chi-squared test confirmed the existence of a statistically significant difference in the distribution of collaboration type between library science and computer science, and between library science and management.

Figures 1 and 3 show the differences in trends of the four primary types of research collaboration for computer science, library science, and management by year. Figure 1 shows a decreasing trend for computer science articles coauthored by researchers, but an increasing trend for articles coauthored by researchers and students. Researcher-student collaboration has dominated since 2012. A slightly increasing trend also appeared in practitioner-researcher and practitioner-researcher-student collaborations. For management, the study identified an increasing trend in researcher-researcher and researcher-student collaborations, but a slightly decrease in practitioner-researcher collaborations. No trends could be observed in practitioner-researcher-student collaborations because of the small number of articles. For library science, practitioner-practitioner, researcher-researcher, and researcher-student collaborations increased, and practitioner-researcher collaboration decreased slightly.
Table 1.
Types of research collaboration

| Type of research collaboration | Computer science | | Library science | | Management | |
|--------------------------------|------------------|------------------|------------------|------------------|------------------|
|                                | Number of articles | Percentage | Number of articles | Percentage | Number of articles | Percentage |
| Researcher-researcher          | 2,093             | 43.5          | 427              | 20.3          | 1,946            | 64.2        |
| Researcher-student             | 1,824             | 37.9          | 176              | 8.4           | 335              | 11.1        |
| Practitioner-researcher        | 317               | 6.6           | 303              | 14.4          | 132              | 4.4         |
| Practitioner-researcher-student| 124               | 2.6           | 1                | 0             | 19               | 0.6         |
| Practitioner-practitioner      | 10                | 0.2           | 334              | 15.9          | 1                | 0           |
| Practitioner-student           | 4                 | 0.1           | 10               | 0.5           | 0                | 0           |
| Student-student                | 3                 | 0.1           |                   |               | 0                | 0           |
| Single-authored articles       | 434               | 0.9           | 847              | 40.3          | 596              | 19.7        |
| Total                          | 4,809             | 100.0         | 2,102            | 100.0         | 3,029            | 100.0       |
Figure 1. Trends of four main types of research collaboration in computer science.

Figure 2. Trends of four main types of research collaboration in management.
Practitioner Authors in Research Collaboration

Practitioner authors took part in four types of research collaboration: practitioner-researcher, practitioner-researcher-student, practitioner-practitioner, and practitioner-student collaborations. In computer science, 620 practitioner authors contributed to coauthored articles, and 98.2 percent of these authors worked as technical staff, such as computer engineers and system architects, in computer-related industries. In library science, 423 practitioner authors were identified from coauthored articles, and 74.5 percent were librarians. In management, 175 practitioner authors participated in research collaborations, and 90.8 percent worked for companies, government agencies, or academic institutions. Job titles commonly included “consultant” or “manager.”

Articles Coauthored by Researchers and Practitioners by Journal

Table 2 lists the distribution of article types in each journal. Except for the *Journal of Information Technology*, coauthorship by researchers or researchers and students were primarily represented in computer science. The proportion of coauthored articles by researchers and practitioners in each journal ranged from 2.8 to 10.9 percent. In library science, except for *College & Research Libraries* and *Journal of the Medical Library Association*, single-authored articles dominated. Four journals had a large proportion of articles coauthored by practitioners, between 31.4 and 36.4 percent. For management journals, except for the *Academy of Management Perspectives*, articles coauthored by researchers dominated, ranging between 54.2 and 80.0 percent. Each journal had a low proportion of articles coauthored by practitioners and researchers, which ranged from 1.2 to 7.8 percent. The 18 journals were all research-oriented.

Figure 3. Trends of four main types of research collaboration in library science.
<table>
<thead>
<tr>
<th>Discipline</th>
<th>Journal title</th>
<th>Coauthored by researchers</th>
<th>Coauthored by researchers and practitioners</th>
<th>Coauthored by practitioners</th>
<th>Coauthored by practitioners and researchers</th>
<th>Percentage of articles</th>
<th>By single author</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer science</td>
<td><em>Journal of Information Technology</em></td>
<td>59.7</td>
<td>11.0</td>
<td>6.3</td>
<td>0.0</td>
<td>2.1</td>
<td>20.9</td>
</tr>
<tr>
<td></td>
<td><em>IEEE [Institute of Electrical and Electronics Engineers]</em></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td><em>Transactions on Fuzzy Systems</em></td>
<td>52.8</td>
<td>30.0</td>
<td>2.8</td>
<td>0.0</td>
<td>0.7</td>
<td>13.8</td>
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<tr>
<td></td>
<td><em>IEEE Transactions on Evolutionary Computation</em></td>
<td>47.6</td>
<td>37.5</td>
<td>5.4</td>
<td>0.2</td>
<td>1.7</td>
<td>7.5</td>
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<tr>
<td></td>
<td><em>IEEE Transactions on Pattern Analysis and Machine Intelligence</em></td>
<td>45.0</td>
<td>35.9</td>
<td>6.4</td>
<td>0.4</td>
<td>2.8</td>
<td>9.5</td>
</tr>
<tr>
<td></td>
<td><em>IEEE Transactions on Systems, Man, and Cybernetics, Part B: Cybernetics</em></td>
<td>42.7</td>
<td>42.8</td>
<td>5.8</td>
<td>0.0</td>
<td>1.6</td>
<td>7.1</td>
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<tr>
<td></td>
<td><em>IEEE Transactions on Industrial Informatics</em></td>
<td>38.4</td>
<td>42.9</td>
<td>8.4</td>
<td>0.0</td>
<td>4.2</td>
<td>6.1</td>
</tr>
<tr>
<td></td>
<td><em>IEEE Wireless Communications</em></td>
<td>34.5</td>
<td>40.3</td>
<td>9.5</td>
<td>1.5</td>
<td>6.0</td>
<td>8.2</td>
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<tr>
<td></td>
<td><em>IEEE Network</em></td>
<td>32.2</td>
<td>50.0</td>
<td>8.8</td>
<td>0.3</td>
<td>4.2</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td><em>IEEE Communications Surveys and Tutorials</em></td>
<td>32.0</td>
<td>45.1</td>
<td>10.9</td>
<td>0.6</td>
<td>5.7</td>
<td>5.7</td>
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</table>
### Library science

<table>
<thead>
<tr>
<th>Journal Name</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library &amp; Information Science Research</td>
<td>34.4</td>
<td>15.6</td>
<td>9.6</td>
<td>2.0</td>
<td>0.0</td>
<td>38.4</td>
</tr>
<tr>
<td>Electronic Library</td>
<td>24.8</td>
<td>12.2</td>
<td>17.0</td>
<td>10.5</td>
<td>1.1</td>
<td>34.5</td>
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<tr>
<td>Library</td>
<td>23.5</td>
<td>10.4</td>
<td>12.2</td>
<td>2.6</td>
<td>1.3</td>
<td>50.0</td>
</tr>
<tr>
<td>Information Technology and Libraries</td>
<td>17.9</td>
<td>3.4</td>
<td>9.4</td>
<td>34.2</td>
<td>0.0</td>
<td>35.0</td>
</tr>
<tr>
<td>Library Quarterly</td>
<td>17.5</td>
<td>6.1</td>
<td>13.2</td>
<td>1.8</td>
<td>0.0</td>
<td>61.4</td>
</tr>
<tr>
<td>College &amp; Research Libraries</td>
<td>16.9</td>
<td>5.3</td>
<td>13.2</td>
<td>32.5</td>
<td>0.4</td>
<td>31.7</td>
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<tr>
<td>Library Trends</td>
<td>15.6</td>
<td>6.0</td>
<td>6.3</td>
<td>10.8</td>
<td>1.3</td>
<td>60.0</td>
</tr>
<tr>
<td>Library Resources &amp; Technical Services</td>
<td>11.6</td>
<td>1.7</td>
<td>7.4</td>
<td>36.4</td>
<td>0.0</td>
<td>43.0</td>
</tr>
<tr>
<td>Journal of the Medical Library</td>
<td>10.2</td>
<td>4.2</td>
<td>35.2</td>
<td>31.4</td>
<td>0.8</td>
<td>18.2</td>
</tr>
</tbody>
</table>

### Management

**MIS [management information systems] Quarterly**

<table>
<thead>
<tr>
<th>Journal Name</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Journal of International Business Studies</td>
<td>80.0</td>
<td>8.2</td>
<td>3.9</td>
<td>0.0</td>
<td>0.6</td>
<td>7.3</td>
</tr>
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<td>Journal of Business Logistics</td>
<td>78.5</td>
<td>7.0</td>
<td>1.2</td>
<td>0.0</td>
<td>0.0</td>
<td>13.4</td>
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<tr>
<td>Long Range Planning</td>
<td>72.9</td>
<td>17.9</td>
<td>7.8</td>
<td>0.0</td>
<td>0.6</td>
<td>4.8</td>
</tr>
<tr>
<td>Journal of Organizational Behavior</td>
<td>64.3</td>
<td>9.9</td>
<td>6.7</td>
<td>0.4</td>
<td>0.8</td>
<td>18.7</td>
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<tr>
<td>Organizational Research Methods</td>
<td>60.9</td>
<td>20.9</td>
<td>5.0</td>
<td>0.0</td>
<td>1.7</td>
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<tr>
<td>Organization Studies</td>
<td>57.9</td>
<td>18.0</td>
<td>3.8</td>
<td>0.0</td>
<td>0.4</td>
<td>19.9</td>
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<tr>
<td>Journal of Supply Chain Management</td>
<td>56.0</td>
<td>3.1</td>
<td>4.3</td>
<td>0.0</td>
<td>0.2</td>
<td>36.5</td>
</tr>
<tr>
<td>Academy of Management Perspectives</td>
<td>54.2</td>
<td>15.4</td>
<td>7.0</td>
<td>0.0</td>
<td>1.5</td>
<td>21.9</td>
</tr>
</tbody>
</table>

This mss. is peer reviewed, copy edited, and accepted for publication, portal 18.3.
Discussion

This study focused on coauthored articles by at least one practitioner author and determined the occupations of practitioners involved in research collaborations. Coauthored articles dominate in computer science, library science, and management. Computer science journals contained the highest percentage of coauthored articles among the three disciplines. Among the seven types of research collaboration, most coauthored articles in computer science represented two types, researcher-researcher and researcher-student. Five types of research collaboration appeared in management, with most management articles being collaborations between researchers. No coauthored articles by practitioners and students were observed. A substantial proportion of library science articles were contributed by practitioner-researcher and practitioner-practitioner collaborations. Practitioner authors were rare in computer science and management.

Computer science and management researchers frequently collaborated with other researchers, which is consistent with expectations because publishing is the primary task of researchers. Students were also primary research partners for computer science researchers. Although students pursuing master’s and doctoral degrees are the primary sources of research assistants for faculty members, the differences in the task profiles of research assistants between disciplines may affect the recognition of authors. Findings show that a higher collaboration rate existed between researchers and students in computer science than in management. This indicates that graduate students in computer science often contribute to research.

Differences between researchers and practitioners, including logic, time to conduct research, interests, incentives, and types of knowledge required, can result in conflict between them. Although researchers sharing their findings with practitioners can help nonacademics gain new knowledge, knowledge transfer is hindered by academic reward systems, which emphasize disseminating research results to the academic community and publishing in peer-reviewed journals. This emphasis may explain why researchers frequently collaborate with other researchers and students.

The selection of research collaborators determines the type of collaboration, because collaborators differ in disciplinary backgrounds, institutional affiliations, and research interests. Researchers tend to identify collaborators from their social network, with trust and subject expertise being major factors affecting their consideration. Frequent collaborations between authors build trust, which implies a closer relationship between researchers and students in computer science than in either library science or management. If practitioners belong to researchers’ social networks, researchers will more likely collaborate with them. Researchers trust...
practitioners because of their professional background. Furthermore, despite advances in telecommunication, geographical proximity is still an essential factor when researchers seek collaborators, including academic-industry collaborations. T. S. Evans, Renaud Lambiotte, and Pietro Panzarasa reported that management researchers tend to seek collaborators from their own institutions and disciplines.

This study confirms that the primary collaborators of researchers are other researchers. The findings also contribute figures related to the proportion of articles coauthored by researchers and practitioners, which are new to the literature. The low proportion of articles coauthored by practitioners and researchers in computer science and management is consistent with figures reported by Vogel, who focused on public administration, and by Morgan and Lightner-Laws, who investigated supply chain management. The low proportion of articles coauthored by researchers and practitioners implies that collaboration presents challenges when participants represent different perspectives toward research. In certain countries, librarian authors are required to publish. This fact distinguishes librarians from practitioners in computer science and management. Numerous studies have reported that librarians are the main contributors for the growth of LIS research.

This study further contributes by presenting trends in the primary types of research collaboration tracked over time, including practitioner-researcher collaboration. A slightly increasing trend in practitioner-researcher collaborations was observed in computer science, whereas both library science and management showed a slightly decreasing trend. Similarities were determined between the types of practitioner authors in computer science, library science, and management. Most practitioner authors had a high association with their fields: technical staff worked in the computer industry, information staff worked for institutions, and managerial staff worked in various industries. A specific type of practitioner dominated in computer science and library science: engineers and librarians, respectively. Management practitioners demonstrated a greater variety of job titles. Numerous practitioner authors had doctoral degrees. Given that they have research experience, they possibly have greater research interests than other practitioner authors do, which may explain their collaborations with researchers. These practitioner-researchers cross the boundary by playing both roles and bridge the gap between research and practice.

The major limitation of this study is that most of the selected journals are research-based, because they were chosen from Journal Citation Reports. The research-oriented nature of those journals was also revealed by the high percentage of articles generated from researcher-researcher and researcher-student collaborations. Researcher journals are not the primary communication forum for practitioners in their disciplines. Therefore, the findings that most authors involved in research collaborations are researchers, and the low proportion of articles coauthored by researchers and practitioners, were anticipated. To improve the precision of identifying academic and practitioner authors, this study examined authors’ job titles individually, not the type of institution with which they were affiliated. Most journals did not provide authors’ job titles in the articles; therefore, many journals with high impact factors or reputations were excluded. Furthermore, no attempt was made to balance the numbers of research-based and practice-based journals. Moreover, classifying the authors by detailed affiliation information, including job title, was laborious, which limited the analysis to only nine journals in each field.
Conclusion

Research collaboration is one form of collaboration encouraged between practitioners and researchers. The differences in their respective knowledge bases are complementary. Although researchers are the primary knowledge creators, practitioners also contribute to the development of disciplines. Therefore, research collaborations between researchers and practitioners benefit knowledge creation, and the contributions of practitioners must not be neglected. This study examined the trends of coauthored articles by practitioners, including practitioner-researcher collaborations, revealing that the research-practice gap may be narrowing.

Although the low number of practitioner authors involved in research collaboration was anticipated, the findings confirm that practitioners have successfully collaborated with researchers. The comparative study of contributions made by practitioner authors in computer science, library science, and management helps LIS readers understand the differences in two fields strongly connected with library science. In addition, research results indicate that library science practitioner authors find it challenging to seek other practitioner authors as research partners from both computer science and management. Practitioner authors with doctoral degrees are familiar with both research and the practical aspects of their professions, and thus can facilitate interactions between research and practice. This type of practitioner author, though rare, can serve to gradually improve the relationship between research and practice. Given the limitations related to journal selection in this study, further investigation of research collaboration types in practice-based journals is recommended to clarify the roles of practitioners.

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Notes


37. Cherney, Head, Boreham, Povey, and Ferguson, “Perspectives of Academic Social Scientists on Knowledge Transfer and Research Collaborations.”


