

More Inclusive Collection Development

Considering the Information Needs of Researchers from Outside the Subject Area of Communication

Lisa Romero

When conducting collection development, it can be assumed that librarians consider the research needs of scholars within their respective disciplines. How systematically librarians consider the needs of scholars outside the discipline, however, has not been established. This study investigates whether resources scholars from outside a discipline use differ from the resources that scholars within a specific discipline use and offers a model for evaluating engagement with core journals outside of the discipline. Focusing on the subject area of communication, the data provided in this study demonstrate the importance of assessing the information needs of researchers from outside the discipline to build a more useful and inclusive journal collection and provide communication librarians with data to guide their collection decisions. Up to twenty years of journal citation data from the Web of Science database were collected and analyzed for thirty-nine communication journals. The author identifies the most and least cited communication journals by researchers outside the discipline to support collection development decisions that meet the needs of all researchers.

Collection development is an involved process that presents numerous challenges for librarians. To name a few: budgets may be insufficient to meet demands of users within the discipline, librarians may struggle to keep up with changes and developments within disciplines, and librarians may find it difficult to know which resources are the most relevant. The goal of collection development should be to develop and maintain resources that meet current and future information needs, whether the researchers using the collection are within or outside the specific discipline. Collection development can be an even bigger challenge in multidisciplinary subject areas like communication where researchers from within and outside the discipline rely on the resources. To make informed collection development decisions, librarians that manage these collections require information that represents the needs of all researchers.

Focusing on the subject area of communication, the goal of this study is to (1) assess the interdisciplinarity of the subject area, specifically, the degree to which researchers outside the field rely on the communication journals; (2) identify those communication journals that are cited more by journals outside the discipline of communication studies to consider the implications for collection

development; (3) discuss any relevant trends of citation patterns; and (4) address the importance of recognizing the information needs of researchers outside the discipline when managing a scholarly journal collection. The author will assess the relevance of the subject area “communication” to research in other fields using the Web of Science (WoS) database. The data from this study will help inform the collection development decisions of librarians managing communication journal collections.

For this study, the author defines “communication studies” as the broad discipline that includes the subject areas of advertising, communication, journalism, media, and public relations. This study focuses on the subject area “communication.” The National Communication Association defines communication as a process that “focuses on how people use messages to generate meanings within and across various contexts, and is the discipline that studies all forms, modes, media, and consequences of communication through humanistic, social scientific and aesthetic inquiry.”¹ Areas of specialization include, but are not limited to: health communication, mass communication, organizational communication, interpersonal communication, political communication, public speaking and visual communication.² Scholars and teachers throughout academia acknowledge the value and relevance of the subject area across all aspects of public and private life and advocate for including communication education in numerous disciplines.³ In addition, the Association of American Colleges and Universities advocates for communication instruction to be a part of the general education curricula.⁴

Related Research and Background

According to Braun and Schubert, interdisciplinary thinking is rapidly becoming an integral feature of research worldwide as the result of four factors: the inherent complexity of society, the desire to explore problems outside the discipline, the need to solve societal problems, and the power of new technologies.⁵ By examining citations in the WoS database, they found that there has been exponential growth in multidisciplinary and interdisciplinary research in the sciences and social sciences from 1975 to 2006. Relating to the social sciences, Gingras and Larivière examined 25 million WoS papers published between 1900 and 2008 for the broad areas—medical, natural sciences and engineering, social sciences, and arts and humanities—and found that interdisciplinarity increases in all areas since the 1990s.⁶ Relating more specifically to the social sciences, Levitt, Thelwall, and Oppenheim evaluated interdisciplinarity in specific subjects within the social sciences. They found that interdisciplinarity rose sharply between 1990 and 2000 “on the average” in the social sciences.⁷ While

both studies affirm an increase in interdisciplinarity in the social sciences, neither addressed interdisciplinarity within the subject area of communication.

If researchers are conducting more interdisciplinary research and the subject area communication is recognized within and outside of academia as vital, then library collections need to reflect both trends in the resources they provide. With respect to communication journal collections, is it adequate for collection development to look at the journals used by researchers within a discipline, or is it important to also look at the journals of a particular discipline that are cited by researchers from outside? This study addresses the theory that librarians with discipline- or subject-specific collection responsibilities also need to consider what resources would be of value to researchers outside the discipline. This issue is especially important for librarians managing communication collections. To meet the needs of academia and society, it is important that librarians responsible for these collections provide access to resources of value to researchers from all disciplines. To accomplish this goal, librarians who manage communication collections need information on the relevance of communication to other fields so that they may also address the information needs of researchers from outside the discipline.

Like many librarians responsible for collection development, librarians managing communication collections face numerous challenges. They must keep apprised of developments in their subject areas, be aware of the research interests of users so that their collections reflect the discipline and remain relevant to users, and ensure their purchasing decisions meet the diverse needs of their users while staying within the limits of available funding. While the collection development process considers several factors such as subject and scope, user needs, price, publisher reputation, format, and weakness or strength of current collection, the relevance of a subject area to other fields may create additional challenges. Articles by Dobson, Kushkowsky, and Gerhard and Crow and Dabars point out that interdisciplinary programs are increasingly prevalent in academia. As such, librarians must develop measures that address the nature of interdisciplinary fields.⁸ Data pertinent to these factors can contribute to better collection development decisions and result in more relevant library collections, but oftentimes data that reflects users’ research needs and behavior varies in scope and purpose and sometimes difficult to obtain. COUNTER usage reports are vendor-generated statistics for online resources such as databases, journals, and e-books.⁹ While COUNTER tracks downloads and page views it does not track citations of resources. As a result, many librarians have conducted citation analysis to assess data related to collection engagement.

Citation analysis is defined as a method of examining the frequency and patterns of citations in published

literature irrespective of format. In scholarly literature, it can establish connections to other works and researchers."¹⁰ Citation analysis is based on the assumption that an author who cites an item has somehow used it in the preparation of their publication.¹¹ Since an important goal of collection development is to meet the research needs of users, citation data is an important tool in the collection development process because it provides librarians with insight into what resources researchers use. Librarians have several tools to perform citation analysis and provide them with citation counts of journal titles. WoS Journal Citation Reports (JCR) have been a major resource for citation data for journals in the humanities, social sciences, and sciences since 1975.¹² Alternatives to WoS include Scopus and Microsoft Academic.¹³ Collecting citation data can be time consuming and is not without caveats. To assess journal use within a specific subject area, the researcher would need to identify journal titles that represent research in the specific subject area while also determining how many years' worth of data that needs to be collected.

Scholars have applied citation analysis in a variety of ways to assist with collection development efforts. Many studies focus on identifying the most cited journals within specific subject areas by examining citations from journals within the same subject area.¹⁴ Studies such as these provide librarians with important data identifying resources used most by researchers within their respective subject area.

Relating to the broad discipline of communication studies, a 2018 study by Romero examined the citation patterns of journals in advertising and public relations, communication and media studies, and journalism over a thirty-year period to identify the most cited journals by researchers within these subject areas. The study found that most journals cited by communication studies researchers were to journals from outside the discipline. The study did not address the relevance of communication to other fields and citations to communication journals from journals outside the discipline.¹⁵ A study conducted by So examined ten communication journals from 1983 to 1985 to assess several qualities including "affinity," or how attractive a journal is to other journals.¹⁶ However, the study did not indicate whether the "other journals" were from within or outside the discipline. Gao examined University of Houston communication faculty publications from 2006 to 2014 to assess their faculty members' information use behavior.¹⁷ Findings from the Gao, So, and Romero studies provide valuable data for collection development. While the existing studies do not address how researchers from outside the discipline of communication studies rely on or use communication journals, they do provide insight on methodology that may be applied to assess the use of communication journals from outside the discipline.

Methodology

The author is responsible for selecting materials within the broad subject area of communication studies—more specifically, advertising, communication, journalism, and public relations—having recently been assigned responsibility for the subject area communication. To gain a better understanding of the relevance of communication to other fields for the purpose of evaluating their library's coverage of communication journals, the author decided to examine and ultimately focus this study on communication.

The task of collecting citation data for communication journals requires a list of communication journals that would ultimately represent communication scholarship and a method of collecting the citation data. As mentioned previously, collecting citation data can be time consuming. The author collected citation data from WoS for this study because it offers several advantages: it has been a major resource for citation data since 1975, users are able to download data into Microsoft Excel, it includes information regarding the source of the citation (journal title), it has a reputation for "exclusivity" focusing on core journals,¹⁸ and it includes citation data for journals in the subject area of communication.

Since the author is familiar with using and downloading data from the WoS database and WoS includes journals in the category communication, journals were identified for the study using the WoS database. Fifty-two journal titles were identified within the category "communication." It is important to note that the WoS database erroneously includes seven journals considered advertising or public relations journals and four journals considered journalism journals within the category "communication." Because the goal of the current study was to examine citations for English-language communication journals, some titles were eliminated. The seven advertising journals and four journalism journals were eliminated because they fall outside of the scope of communication. Two communication titles were eliminated because WoS did not provide citation data after 2001 for the two journals. The thirty-nine journals in the subject area communication identified for this study are listed in the appendix. To avoid any confusion, the author may also refer to the thirty-nine communication journals as the "cited journals" since the study is examining citations to these journals. In addition, the author may refer to the journals from which citations were compiled as the "citing journals."

Microsoft Excel was used to store and organize the downloaded WoS citation data. An Excel file was created for each of the thirty-nine communication journal titles. Within each file, worksheets were created representing each year's worth of citation data within WoS from the citing journals. For example, if WoS included citation data

for communication journal X for the years 2000–2010, the author created eleven worksheets, one for each year. Each year's worksheet included the name of citing journal and the number of citations (to the cited journal). The data included the titles of the citing journals, number of citations per year, and the respective year cited. The entire dataset consisted of a total of 342,630 citations to the thirty-nine communication journals. Citation data represented citations for the cited communication journals beginning from the first year of inclusion within WoS through 2018, some as far back as 1997.

Because the goal of the study was to determine the number of citations from outside the discipline of communication studies, the author needed to “code” the citing journal titles. Using subject description information from the WoS database or the WorldCat database, the author assigned one of three codes to each citing journal within the worksheets: “In,” citing journal was from within the broad discipline of communication studies (advertising, public relations, communication, or journalism); “Out,” citing journal was from outside the communication studies discipline; or “Self,” self-citation from the respective journal. It is important to note that “In” citing journals and “Self” citing journals are all considered to be within communication studies. This “coding” information was used to further sort the data and determine if the communication journals were cited primarily from inside or outside the broad discipline of communication studies.

Findings and Discussion

Citations for thirty-nine communication journals were examined. The majority of the cited journals (twenty-eight journals, or 72 percent) received most of their citations from journals from outside the discipline of communication studies (table 1). The remaining eleven cited communication journals (28 percent) had most of their citations from journals from within communication studies (table 1). None of the cited journals had a majority of self-citations.

Relevance to Researchers Outside the Discipline

Table 1 provides a list of the thirty-nine communication journals and includes for each journal, the total number of citations for each journal broken down, into three columns, by from where citations to the journals originated: journals outside the discipline of communication studies, communication studies journals, or self-citations. Appearing first on the list are the twenty-eight communication journals with the majority of citations to them from journals outside the discipline of communication studies. At the end of the

list (separated by a line) are the eleven journals with the majority of citations to them from journals within the communication studies discipline. A large majority of the cited journals (twenty titles, or 71 percent) in table 1 had more than half of their citations from journals outside the discipline of communication studies. None of the titles had more than 28 percent of their citations as self-cited. The twenty-eight cited communication journals with most of their citations from journals outside the discipline of communication studies represent the gamut of subject areas within communication: discourse, media, human, health, political, visual, international, and interpersonal. This fact could indicate the relevance of the specific areas within communication (discourse, media, human, health, visual, international, and interpersonal) to researchers outside the discipline. The two information management journals (*International Journal of Information Management* and *Information Economics and Policy*) both had a very low percentage of citations from citing journals from within the discipline of communication studies (0 percent and 2 percent), one could assume that they are cited more from within the discipline of information management. All three journals whose scope is discourse studies as well as the two journals focusing on health communication are on the list. Their percentage of citations from journals from outside the discipline ranged from 54 to 76. Discourse analysis or studies is considered a “broad and cross-disciplinary field” that scholars describe as “too difficult to delimit.”¹⁹ Discourse studies have surged not only with fields related to language use, but also in disciplines such as anthropology, history, psychology, literary studies, philosophy, and sociology. Health communication is an area of study that investigates the ways that human and mediated communication influence the outcomes of healthcare and health-promotion efforts. While it is a “relatively young area” of research and education, research and writing on the subject has grown tremendously since the early 1980s resulting in increasing numbers of important research findings and publications.²⁰

It is useful to know which communication journals are cited more by researchers outside the discipline because it facilitates librarians' efforts to also meet these scholars' information needs. However, it might also be useful to know if any of these journals' citations from outside the discipline are increasing, especially with respect to areas of specialty within communication (health communication, mass communication, organizational communication, interpersonal communication, political communication, public speaking, and visual communication). Table 2 provides a list of the twenty-eight communication journals with most of their citations originating from journals outside the communication studies discipline. For each journal, it includes a column with the total number of citations originating from outside the discipline (from year 1, the first year the

Table 1. Communication Journals Ranked by Percentage of Citations from Journals from Outside the Discipline of Communication Studies

Titles (dates of coverage)	Citations from Citing Journals Outside the Communication Studies Discipline	Citations from Citing Journals Inside the Communication Studies Discipline	Citations from Within the Same Journal
<i>International Journal of Information Management</i> (1997–2018)	16,176 (88%)	78 (0%)	2,084 (11%)
<i>Information Economics & Policy</i> (2002–2018)	2,871 (87%)	59 (2%)	376 (11%)
<i>Written Communication</i> (1997–2018)	5,057 (82%)	240 (4%)	851 (14%)
<i>Discourse Studies</i> (2005–2018)	4,655 (76%)	856 (14%)	620 (10%)
<i>Journal of Health Communication</i> (1999–2018)	16,641 (75%)	2,979 (13%)	2,637 (12%)
<i>Crime Media Culture</i> (2010–2018)	926 (74%)	81 (6%)	246 (20%)
<i>Discourse & Society</i> (1997–2018)	8,254 (71%)	1,871 (16%)	1,477 (13%)
<i>Argumentation</i> (2011–2018)	1,118 (63%)	214 (12%)	433 (25%)
<i>Human Communication Research</i> (1997–2018)	15,038 (61%)	8,240 (33%)	1,378 (6%)
<i>Information Communication & Society</i> (2011–2018)	6,031 (61%)	2,819 (29%)	1,010 (10%)
<i>Text & Talk</i> (2006–2018)	1,095 (60%)	614 (33%)	128 (7%)
<i>Visual Communication</i> (2010–2018)	736 (58%)	337 (27%)	191 (15%)
<i>Discourse & Communication</i> (2009–2018)	626 (57%)	327 (30%)	145 (13%)
<i>New Media & Society</i> (2003–2018)	11,877 (57%)	6,504 (31%)	2,289 (11%)
<i>Media Psychology</i> (2002–2018)	4,406 (56%)	2,821 (36%)	606 (8%)
<i>Communication Monographs</i> (1997–2018)	9,788 (56%)	6,719 (38%)	979 (6%)
<i>Continuum</i> (2010–2018)	1,043 (55%)	643 (34%)	207 (11%)
<i>Health Communication</i> (1997–2018)	5,295 (54%)	3,624 (37%)	954 (10%)
<i>Communication Research</i> (1997–2018)	17,207 (53%)	13,161 (40%)	2,129 (7%)
<i>Journal of Communication</i> (1997–2018)	23,963 (53%)	19,489 (43%)	2,168 (5%)
<i>Chinese Journal of Communication</i> (2011–2018)	258 (48%)	215 (40%)	64 (12%)
<i>Journal of Applied Communication Research</i> (1998–2018)	1,990 (48%)	1,577 (38%)	560 (14%)
<i>Political Communication</i> (1997–2018)	6,729 (47%)	6,492 (46%)	1,033 (7%)
<i>Media Culture & Society</i> (1997–2018)	5,103 (46%)	4,805 (43%)	1,253 (11%)
<i>International Journal of Communication</i> (2011–2018)	2,404 (45%)	2,251 (42%)	725 (13%)
<i>Media International Australia</i> (2009–2018)	544 (43%)	466 (37%)	257 (20%)
<i>Rhetoric Society Quarterly</i> (2010–2018)	462 (39%)	418 (36%)	296 (25%)
<i>Journal of Media Economics</i> (1997–2018)	802 (39%)	664 (33%)	566 (28%)
<i>Communication Theory</i> (1997–2018)	5,043 (44%)	5,732 (50%)	706 (6%)
<i>Journal of Broadcasting & Electronic Media</i> (1997–2018)	7,050 (41%)	8,074 (47%)	2,051 (12%)
<i>European Journal of Communication</i> (1997–2018)	2,469 (40%)	3,206 (52%)	484 (8%)
<i>Mass Communication and Society</i> (2010–2018)	2,097 (40%)	2,575 (49%)	608 (12%)
<i>Asian Journal of Communication</i> (2010–2018)	531 (37%)	679 (47%)	231 (16%)
<i>Quarterly Journal of Speech</i> (1997–2018)	2,462 (34%)	3,297 (46%)	1,418 (20%)
<i>Communications</i> (2011–2018)	430 (34%)	711 (57%)	109 (9%)
<i>Television & New Media</i> (2010–2018)	527 (31%)	926 (54%)	260 (15%)
<i>Javnost</i> (1998–2018)	456 (31%)	704 (48%)	302 (21%)
<i>Critical Studies in Media Communication</i> (2000–2018)	817 (30%)	1,491 (56%)	375 (14%)
<i>Journal of Mass Media Ethics</i> (2018–2018)	251 (17%)	774 (52%)	463 (31%)

Table 2. Journals with Majority of Citations from Outside the Discipline by % Increase from First Year in WoS (Year 1) to 2018

Title	Total Citations from Outside: Year 1—2018	Citations from Outside: Year 1	Citations from Outside: 2018	(Outside) Citation Increase: Year 1—2018	% Change: Year 1—2018
<i>Health Communication</i>	5,295	10 (1998)	1,634	1,624	16,240
<i>New Media & Society</i>	11,877	22 (2003)	2,909	2,887	13,123
<i>Journal of Health Communication</i>	16,641	23 (1999)	2,903	2,880	12,522
<i>International Journal of Information Management</i>	16,176	40 (1997)	3,689	3,649	9,123
<i>Text & Talk</i>	1,095	2 (2006)	177	175	8,750
<i>Journal of Applied Communication Research</i>	1,990	7 (1998)	360	353	5,043
<i>Political Communication</i>	6,729	28 (1997)	1,199	1,171	4,182
<i>Media Psychology</i>	4,406	20 (2002)	794	774	3,870
<i>Information Economics & Policy</i>	2,871	17 (2002)	439	422	2,482
<i>International Journal of Communication</i>	2,404	37 (2011)	879	842	2,276
<i>Discourse & Society</i>	8,254	46 (1997)	1,065	1,019	2,215
<i>Discourse Studies</i>	4,655	47 (2005)	807	760	1,617
<i>Journal of Media Economics</i>	802	5 (1998)	78	73	1,460
<i>Journal of Communication</i>	23,963	249 (1997)	3,778	3,529	1,417
<i>Communication Research</i>	17,207	151 (1997)	2,016	1,865	1,235
<i>Media Culture & Society</i>	5,103	67 (1997)	843	776	1,158
<i>Information Communication & Society</i>	6,031	155 (2011)	1,911	1,756	1,133
<i>Chinese Journal of Communication</i>	258	7 (2011)	62	55	786
<i>Communication Monographs</i>	9,788	144 (1997)	1,255	1,111	772
<i>Written Communication</i>	5,057	77 (1997)	660	583	757
<i>Discourse & Communication</i>	626	20 (2009)	158	138	690
<i>Human Communication Research</i>	15,038	239 (1997)	1,708	1,469	615
<i>Visual Communication</i>	736	25 (2010)	165	140	560
<i>Continuum</i>	1,043	41 (2010)	246	205	500
<i>Argumentation</i>	1,118	76 (2011)	313	237	312
<i>Crime Media Culture</i>	926	48 (2010)	197	149	310
<i>Media International Australia</i>	544	32 (2009)	99	67	209
<i>Rhetoric Society Quarterly</i>	462	35 (2010)	98	63	180

journal was included in WoS, until 2018), a column with the number of citations (from outside the discipline) in year 1, a column with the number of citations (from outside the discipline) in 2018. The final two columns provide information on the increase in the number of citations (from outside) and the percentage increase in the number of citations (from outside) from the year 1 until 2018. The journal titles are listed according to their percentage increase from year 1 to 2018. The percentage change was calculated based on the increase in citations from year 1 until 2018.

Table 2 provides several insights related to collection development. First, the two health communication journals ranked first and third on the list for increase in citations

from outside the discipline. This finding could indicate the importance of this subject area and value of these journals for researchers outside communication studies and suggest to librarians the importance of also purchasing books in the area of health communication. Another explanation could be that journal articles in the sciences (including health sciences) tend to have more citations overall when compared to other disciplines. Stretching library funding and meeting users' information needs is a constant challenge. Table 2 provides valuable data in the effort to make informed collection development decisions. The data helps librarians justify funding for the journal titles on the list and informs collection development decisions for journal cancellations.

Journals Cited by Journals from Within the Discipline of Communication Studies

Table 1 also includes the eleven cited communication journals with most of their citations from journals from within the discipline of communication studies. All eleven journals had 46 percent or more of their citations from within the discipline. It is important to note that while most of the citations for these journals were from within communication studies, seven of the titles on the list had more than 33 percent of their citations from outside the discipline (ranging from 34 percent to 44 percent). On the flip side, none of the journals on the list had more than 31 percent of their citations as self-cited. Percentages of self-citations ranged from 6 percent to 31 percent. Self-citing occurs across many subject areas. It might be interesting to know the percentage of self-citing within other subject areas and compare with what was found in the current study.

The author was also curious if and how any of the communication journals cited more from outside the subject area communication might compare with communication journals found to be highly cited by scholars from within the discipline of communication studies. In other words, are there communication journals that are highly cited by scholars within communication as well as scholars from outside the broader discipline of communication studies (for example, sociology, psychology, and political science)? To make this comparison, it would be necessary to have a list of communication journals highly cited by communication studies researchers. The author's 2018 article identified the most relevant or cited journals in communication and media, advertising and public relations, and journalism by researchers within the communication studies discipline. In this study, the author examined citations from 116 communication studies journals cited over a thirty-year period and identified the most relevant (by citations) journals in communication studies.²¹ The citation data was organized or sorted according to specific subject area: advertising and public relations journals, journalism journals, and communication and media journals, resulting in lists of top fifty journals cited by researchers in these areas.

Using the data from the author's 2018 study for communication and media journals (examining citations from

Table 3. List of Communication Journals with Majority of Citations from Outside the Discipline (see table 1) and Cited most by Researchers within Communication Studies*

E-title	Percentage of Citations from Outside the Discipline	Citations from Researchers Within the Discipline and Ranking on Top Fifty List
<i>Communication Monographs</i>	56	912, #5
<i>Communication Research</i>	53	1,042, #4
<i>Discourse & Society</i>	71	253, #22
<i>Human Communication Research</i>	61	1,089, #3
<i>International Journal of Information Management</i>	88	215, #25
<i>Journal of Applied Communication Research</i>	48	185, #37
<i>Journal of Communication</i>	53	1,631, #1
<i>Journal of Media Economics</i>	39	177, #39
<i>Media, Culture & Society</i>	46	387, #14
<i>Media Psychology</i>	56	176, #41
<i>New Media & Society</i>	57	164, #50
<i>Political Communication</i>	47	371, #15

* See Lisa Romero, "A Citation Analysis of Scholarly Journals in Communication Studies," *portal: Libraries and the Academy* 18, no. 3 (July 2018): 505–34.

within communication studies) and the data from the current study (examining citations from outside communication studies), the author was able to identify journals that are highly cited within and outside the discipline of communication studies. To accomplish this, the author compared the journal titles included in table 1 (with the majority of their citations from citing journals from outside the discipline) with the list of the top fifty cited journals from within communication and media from the 2018 study. Table 3 is a list of the twelve communication journals that were found in the current study to be cited more by journals outside the discipline that were also in the top fifty most cited journals by researchers from within communication studies. The collection development process involves issues, decisions, and opportunities for librarians relating to format, dates of coverage, and purchasing versus interlibrary loan or other options for access. The fact that these twelve journals were highly cited by scholars outside and within communication studies contributes to librarians' collection development efforts in a variety of ways. It facilitates their goal to develop a more inclusive communication journal collection that meets the needs of all researchers. More specifically, with an understanding that these titles are well-used within and outside of the disciplines, online access to these titles should be made a priority to ensure that all researchers' needs are met. Because the current study examined citations from as far back as 1997 and the author's 2018 study examined thirty years' worth of data, communication librarians should also consider purchasing online backfiles of these twelve titles.

Conclusion

It can be assumed that a universal goal for librarians managing communication collections would be to ensure that their library collections reflect the needs of all researchers. Citation analysis is one method of evaluating data to understand which resources are cited, or used most, by researchers. As the first study to investigate citations to communication journals from researchers outside of the discipline, this study represents a more inclusive picture of communication research and provides librarians with a model for making evidence-based decisions that support interdisciplinary researchers. By investigating what communication journal titles are cited by researchers outside the discipline, the author presents the other half of the collection development picture that should be considered when building collections that meet the needs of all researchers.

Using up to twenty years of WoS data, the author analyzed citations to thirty-nine communication journals cited by journals outside the discipline of communication studies. The data show that the preponderance of the citations to communication journals indexed in WoS are from outside the discipline, demonstrating the importance of considering the research needs of scholars outside the discipline and confirming the relevance of the subject area communication to areas outside communication studies. More specifically, the study provides librarians with a ranked list of journal titles cited most by scholars outside the discipline. This list may be consulted when making a variety of collection development decisions. Because the data in this study relied on citation data as far back as 1997, librarians could consult the list when purchasing backfiles of online journals. Titles that ranked high in table 2 are good candidates for online access to both current and older issues because these titles are used by researchers outside the discipline and because the number of citations from citing journals outside the discipline have increased.

Titles included in table 3 were found to be highly cited by researchers both outside the discipline (current study) and researchers within communication studies (the author's 2018 study); accordingly, these titles could be considered the beginning of a list of core journal titles in communication and titles whose subscriptions should be considered essential. For libraries whose respective universities do not have communication departments, the data in this study is very informative because it specifically addresses what communication journals are used more by researchers outside the discipline. It indicates more specifically what communication journals are used by (for example) researchers

in political science, sociology, psychology, business, and health. In addition to making decisions relating to journal collections, the data provided in table 2 might be used to inform purchasing decisions for monograph collections. Table 2 includes information on the increase of citations and could be helpful in identifying trends within communication, such as subject areas that are becoming more popular, and may inform collection development for journals and monographs alike.

Possible limitations of the study include the fact that WoS does not include a more complete list of communication journals. For example, The National Communication Association, the prominent professional organization for communication scholars, currently publishes eleven scholarly journals. WoS provides citation data for only four of these titles. While this study brings librarians closer to developing a core list of communication journal titles, a topic for future research could be an analysis of the various sources of citation data (Scopus, Web of Science, etc.) to assess their inclusion of journals in the broader area of communication studies and establish a "core" list of journals in communication. This core list of journals might facilitate future and more regular efforts to conduct citation analyses for evidence-based collection development.

Academic institutions vary in the programs they offer. Many academic library collections mirror the focus of their respective institutions and departments. It may be helpful to provide communication librarians with specific information regarding the nature of the citations from outside the discipline. For example, instead of providing a general number of citations from outside or inside the discipline for each journal, it might be helpful to indicate the specific disciplines from which the citations originated. The data would then be more valuable to the specific goals and needs of communication collections at different institutions.

As mentioned previously, the level of interdisciplinarity is increasing within the social sciences. As such, librarians responsible for collection management in subject areas other than communication might also be interested in data relating to the relevance of their subject area to other subjects and how it might impact the use of their journal collections. The current study provides a model for assessing the use of journals by researchers from outside a particular subject area and enables evidence-based collection development. Making evidence-based decisions contributes to the process of effectively managing library collections and provides users with access to resources that more effectively meet their information needs.

References

1. "About NCA: What is Communication," National Communication Association, accessed January 13, 2022, www.natcom.org/about-nca/what-communication.
2. "About NCA: What is Communication."
3. National Communication Association, "The Role of the Communication Discipline on Campus and Beyond," Washington, DC: National Communication Association, 2015, https://www.natcom.org/sites/default/files/publications/LOC_3_The_Role_of_the_Communication_Discipline.pdf; Sherwyn P. Morreale, Joseph M. Valenzano, and Janessa A. Bauer, "Why Communication Education is Important: A Third Study on the Centrality of the Discipline's Content and Pedagogy," *Communication Education* 66, no. 4 (2017): 402–22; Donald McCloskey, "The Neglected Economics of Talk," *Planning for Higher Education* 22, no. 4 (Summer 1994): 11–16.
4. Valid Assessment of Learning in Undergraduate Education (Project), Liberal Education and America's Promise (Program), and Association of American Colleges and Universities, "The Leap Vision for Learning: Outcomes, Practices, Impact, and Employers' Views," Washington, DC: Association of American Colleges and Universities, 2011, https://gened.psu.edu/sites/default/files/docs/leap_vision_summary.pdf.
5. Tibor Braun and Andras Schubert, "The Growth of Research on Inter- and Multidisciplinarity in Science and Social Science Papers, 1975–2006," *Scientometrics* 73, no. 3 (December 2007): 345–51; Tibor Braun and Andras Schubert, "A Quantitative View on the Coming of Age of Interdisciplinarity in the Sciences 1980–1999," *Scientometrics* 58, no. 1 (September 2003): 183–89.
6. Yves Gingras and Vincent Larivière, "The Historical Evolution of Interdisciplinarity: 1900–2008," in *Book of Abstracts of the Eleventh International Conference on Science and Technology Indicators* (Leiden, Netherlands: The Conference, 2010), 100–101.
7. Jonathan M. Levitt, Mike Thelwall, and Charles Oppenheim, "Variations Between Subjects in the Extent to Which the Social Sciences Have Become More Interdisciplinary," *Journal of the American Society for Information Science and Technology* 62, no. 6 (June 2011): 1126.
8. Cynthia Dobson, Jeffrey D. Kushkowsky, and Kristin H. Gerhard, "Collection Evaluation for Interdisciplinary Fields: A Comprehensive Approach," *Journal of Academic Librarianship* 22, no. 4 (July 1996): 279; Michael M. Crow and William B. Dabars, "Interdisciplinarity and the Institutional Context of Knowledge in the American Research University," in *The Oxford Handbook of Interdisciplinarity*, 2nd edition, ed. Robert Frodeman (New York: Oxford University Press, 2017).
9. Peter T. Shepherd, "COUNTER: Usage Statistics for Performance Measurement," *Performance Measurement and Metrics* 7, no. 3 (2006): 142–52.
10. Michael Levine-Clark and Toni Carter Dean, *ALA Glossary of Library and Information Science*, 4th edition (Chicago, IL: ALA Editions, 2013), 53.
11. Thomas E. Nisonger, *Management of Serials in Libraries* (Englewood, CO: Libraries Unlimited, 1998), 122.
12. "The Clarivate Analytics Impact Factor," Clarivate, accessed January 7, 2022, <https://clarivate.com/webofsciencegroup/essays/impact-factor/>; Howard D. White, "Citation Analysis," in *Encyclopedia of Library and Information Sciences*, 4th edition, ed. John D. McDonald and Michael Levine-Clark (Boca Raton: Taylor and Francis, 2017), 923–39.
13. White, "Citation Analysis," 923.
14. Karen Kohn and Larissa Gordon, "Citation Analysis as a Tool for Collection Development and Instruction," *Collection Management* 39, no. 4 (September 2014): 275–96; Claudia Lascar, "Urban Ecology: An Analysis of Interdisciplinarity," *Science & Technology Libraries* 31, no. 4 (November 2012): 426–41; Claudia Lascar and Loren D. Mendelsohn, "An Analysis of Journal Use by Structural Biologists with Applications for Journal Collection Development Decisions," *College & Research Libraries* 62, no. 5 (September 2001): 422–33; Elizabeth Pan, "Journal Citation as a Predictor of Journal Usage in Libraries," *Collection Management* 2, no. 1 (Spring 1978): 29–38; Juris Dilevko and Keren Dali, "Improving Collection Development and Reference Services for Interdisciplinary Fields through Analysis of Citation Patterns: An Example Using Tourism Studies," *College & Research Libraries* 65, no. 3 (May 2004): 216–41.
15. Lisa Romero, "A Citation Analysis of Scholarly Journals in Communication Studies," *portal: Libraries and the Academy* 18, no. 3 (July 2018): 505–34.
16. Clement Y. K. So, "Citation Patterns of Core Communication Journals: An Assessment of the Developmental Status of Communication," *Human Communication Research* 15, no. 2 (Winter 1988): 236–55.
17. Wenli Gao, "Information Use in Communication Research: A Citation Analysis of Faculty Publication at the University of Houston," *Behavioral & Social Sciences Librarian* 34, no. 3 (August 2015): 116–28.
18. Stephan Stahlschmidt and Dimity Stephen, "From Indexation Policies Through Citation Networks to Normalized Citation Impacts: Web of Science, Scopus, and Dimensions as Varying Resonance Chambers," *Scientometrics* 127, no. 5 (May 2022): 2413–31; "Web of Science Core Collection Editorial Selection Process," Clarivate, accessed June 25, 2022, <https://clarivate.com/products/scientific-and-academic-research/research-discovery-and-workflow-solutions/web-of-science/core-collection/editorial-selection-process/>.

19. Anna De Fina and Alexandra Georgakopoulou, eds., *The Cambridge Handbook of Discourse Studies* (Cambridge, UK: Cambridge University Press, 2020), xxiii.
20. Gary L. Kreps, "Health Communication," in *Encyclopedia of Communication and Information*, ed. Jorge Reina Schement (New York: Macmillan Reference, 2002), 395.
21. Romero, "A Citation Analysis."

Appendix. List of Journals Included (dates of coverage)

- Argumentation* (2011–2018)
Asian Journal of Communication (2010–2018)
Chinese Journal of Communication (2011–2018)
Communication Monographs (1997–2018)
Communication Research (1997–2018)
Communication Theory (1997–2018)
Communications: European Journal of Communications Research (2011–2018)
Continuum (2010–2018)
Crime Media Culture (2010–2018)
Critical Studies in Media Communication (2000–2018)
Discourse & Communication (2009–2018)
Discourse & Society (1997–2018)
Discourse Studies (2005–2018)
European Journal of Communication (1997–2018)
Health Communication (1997–2018)
Human Communication Research (1997–2018)
Information Communication & Society (2011–2018)
Information Economics & Policy (2002–2018)
International Journal of Communication (2011–2018)
International Journal of Information Management (1997–2018)
Javnost (1998–2018)
Journal of Applied Communication Research (1998–2018)
Journal of Broadcasting & Electronic Media (1997–2018)
Journal of Communication (1997–2018)
Journal of Health Communication (1999–2018)
Journal of Mass Media Ethics (2010–2018)
Journal of Media Economics (1997–2018)
Mass Communication and Society (2010–2018)
Media Culture & Society (1997–2018)
Media International Australia (2009–2018)
Media Psychology (2002–2018)
New Media & Society (2003–2018)
Political Communication (1997–2018)
Quarterly Journal of Speech (1997–2018)
Rhetoric Society Quarterly (2010–2018)
Television & New Media (2010–2018)
Text & Talk (2006–2018)
Visual Communication (2010–2018)
Written Communication (1997–2018)