

# CONTENT ANALYSIS OF PAPERS SUBMITTED TO *COMMUNICATIONS IN INFORMATION LITERACY*, 2007-2013

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## ABSTRACT

The author conducted a content analysis of papers submitted to the journal, *Communications in Information Literacy*, from the years 2007-2013. The purpose was to investigate and report on the overall quality characteristics of a statistically significant sample of papers submitted to a single-topic, open access, library and information science (LIS) journal. Characteristics of manuscript submissions, authorship, reviewer evaluations, and editorial decisions were illuminated to provide context; particular emphasis was given to the analysis of major criticisms found in reviewer evaluations of rejected papers. Overall results were compared to previously published research. The findings suggest a trend in favor of collaborative authorship, and a possible trend toward a more practice-based literature. The findings also suggest a possible deterioration in some of the skills that are required of LIS authors relative to the preparation of scholarly papers. The author discusses potential implications for authors and the disciplinary literature, recommends directions for future research, and where possible, provides recommendations for the benefit of the greater community of LIS scholars.

## INTRODUCTION

In a somewhat dated study concerning the quality and value of the professional journal literature, Herson and Metoyer-Duran (1992) asserted the following: “If library and information science is to advance as a scholarly field, and further justify the position of its programs within college and university graduate schools, the quality of the research, theoretical, and scholarly literature of the field must increase” (p. 501). Since the time of that assertion, the professional literature has evolved considerably; it has been expanded to accommodate new areas of research and practice, and it has been adapted to the wider possibilities of electronic publishing with a characteristically unique embrace of open access. Given these changes, and the current environment in which library practitioners and educators are increasingly pressured to demonstrate their value in more tangible ways, it would seem that Herson and Metoyer-Duran’s contention relative to the literature is truer and even more poignant today.

Published research on the actual quality and value of LIS journal literature is sparse. The studies devoted to this topic are variously noteworthy to the extent that they demonstrate a thread of relative inquiry, they provide some useful research methods, they include modestly representative samples, and they yield some potentially generalizable findings. However, these studies are also dated; none of them address the state of LIS journal literature as it pertains to recent disciplinary discourse, nor do they address the literature in the emergent context of an open access publishing environment. It should be recognized that the current literature does include numerous discussions of how authors might improve the quality and value

of their research and writing, but despite the fact that those works occasionally appear in peer-reviewed journals, they are primarily anecdotal or editorial in nature: that is, they are not research-based. For these reasons, the author of this paper devised a study in which the quality characteristics of actual LIS manuscript submissions could be illuminated. And for the purpose of this paper, the term “quality characteristic” is defined as a characteristic—in this instance, with scholarly papers—that can be identified and evaluated for the purpose of judging the overall quality and value relative to the greater body of professional literature. The objective of the study was to investigate and report on the overall quality and value of a statistically significant sample of LIS manuscripts in the context of contemporary subject matter in a single-topic, open access journal. The author’s main research questions included the following:

- What are the characteristics of authorship and manuscript submissions in the context of contemporary LIS subject matter in a single-topic, open access journal?
- What are the strengths and weaknesses of contemporary LIS manuscript submissions?
- How do the quality characteristics of contemporary LIS manuscripts compare to those that were evaluated in previous studies?
- Do the quality characteristics of contemporary LIS manuscripts, as identified in studies like this, suggest areas in which LIS authors, in general, might improve upon their scholarly writing?

As co-founder and co-editor of the open access journal, *Communications in Information Literacy* (CIL), the author of

this paper was uniquely positioned to design and conduct a study on the quality characteristics of LIS manuscript submissions. The author conducted a content analysis of reviewer evaluations for manuscripts submitted to *CIL* from the years 2007 through 2013 (volumes 1-7). The study was modeled loosely after one that was conducted by Herson, Smith, and Croxson (1993), but with numerous modifications. Particular emphasis was given to collecting data from the reviewer evaluations of papers that were ultimately rejected; the author examined and collated the primary deficiencies of those papers, as identified by the reviewers. This was done solely for the purpose of identifying particular areas of weakness that LIS authors might improve upon. As with previously published works, the author of the present study investigated related issues of reviewer turnaround times, rates of reviewer agreement, and whether or not rejected papers were published elsewhere. The author also collected relevant characteristics of manuscript authorship in order to provide readers with a contextual understanding of the study sample, and perhaps the results. Finally, the author weighed the overall findings, proposed possible implications, recommended future directions for related research, and provided some contextual recommendations.

## LITERATURE REVIEW

As noted, published research on the actual quality and value of LIS journal literature is sparse and dated. Although the relative newness of the discipline commonly requires its scholars make use of research conducted in other fields—particularly with respect to theory and methodology—the nature of the subject matter of this paper required the author to remain within the LIS framework.

Earlier research-based analyses of the quality and value of the literature were largely concentrated on the use, authority, and relative depth of cited works in scholarly LIS papers. Pierce (1987), for instance, argued that the inconsistent use of cited works in published LIS papers was evidence of a weakness in the literature. As he asserted, “The difference in age and format of materials cited and the lack of agreement on what items merit citing are indicative of a lack of consensus on the value of individual research efforts in the professions that lessens the value of research generally. The failure of a literature to develop scientific knowledge structures suggests a failure of knowledge to cumulate and build” (p. 165). In a subsequent study of citation use as it pertains to the quality of LIS literature, Budd (1991) found a similar dispersion of research anchors and an overreliance on research internal to the discipline. Shortly thereafter, Herson and Metoyer-Duran (1992) showed evidence that “...academic librarians rely on source material that is convenient and easily understood” (p. 510), thus imparting greater responsibility on manuscript reviewers as gatekeepers, and increasing the instances in which papers lacking in-depth research are published in journals with less rigorous standards.

Investigating quality characteristics from a different perspective, Metoyer-Duran (1993) assessed the readability of papers submitted to the journal, *College & Research Libraries*, from 1990-1991. The author identified an emerging pattern in which “readability might be linked to ‘browseability’” (p. 521), and in her conclusions, she suggested that the downward trajectory of reading levels in general and the increased demands on librarians’ professional lives might conspire to have a negative impact on the overall

sophistication of LIS manuscript submissions, and by extension, the professional literature. Apropos of the present study, Metoyer-Duran also proposed the following as questions that merited future investigation: “What is the readability of electronic journals?” and “Is there a difference in readability between electronic and nonelectronic journals?” (p. 521). This is particularly important, given Xia’s more recent study concerning the overall quality of LIS journals; as the author found, “...OA [open access] journals have gained momentum supporting high-quality research and publication, and some OA journals have been ranked as high as the best traditional print journals” (2012, p. 134).

Landwirth (1991) conducted a small-scale, internal examination of reviewer evaluations for manuscripts submitted to the journal, *Bulletin of the Medical Library Association*, from 1988-1990. Her particular interest, in terms of quality characteristics, was in the question, “What causes rejection of a manuscript for publication?” (p. 337). Preparing to answer that question, the author noted that, “It is difficult to translate narrative referee comments into firm categories, but imprecise observations are possible” (p. 337). As a result, Landwirth identified what she deemed to be the major criticisms in reviewer evaluations for rejected papers, and she found that they fit into six, mostly general categories. The two most cited criticisms were equally represented: lack of new or noteworthy information (i.e., unoriginal or commonplace) and poorly developed ideas (i.e., premature, lacking focus, or superficial). The poor quality of presentation (i.e., substandard writing) was another highly cited manuscript criticism. The remaining categories of criticisms—scientific invalidity (i.e., design or conclusions), out of scope (i.e., trivial, too

specialized, or limited appeal), and prior publication elsewhere—were cited to lesser, but still noteworthy degrees.

For the purpose of this paper, the most relevant previous research was conducted by Hernon, Smith, and Croxen (1993). In their study, the authors analyzed the characteristics of authorship, editorial decisions, and reviewer evaluations for manuscript submissions to the journal, *College & Research Libraries*, from 1980-1991. Emphasis was given to examining the quality characteristics of rejected manuscripts by identifying and enumerating the major criticisms in reviewer evaluations. The authors created a detailed set of 18 categories for which criticisms could be coded, and furthermore, they identified what they deemed to be primary and secondary criticisms for each rejected paper. Reflecting the results from Landwirth’s study (1991), the authors established that the lack of new or noteworthy information was the most common criticism to be found in reviewer evaluations. Unlike Landwirth’s findings, however, the second to most common criticism was that manuscripts were out of scope for the journal. To lesser, but still noteworthy degrees, issues related to poorly developed ideas, poor quality of presentation, and scientific invalidity were also cited as major criticisms.

It is noteworthy that Aluri (1996) issued a harshly critical response to the Hernon, Smith, and Croxen (1993) study, suggesting that the authors’ own work suffered from many of the same flaws that they had identified as major criticism in other LIS manuscript evaluations. Specifically, Aluri asserted that the researchers included insufficiently noteworthy information in their study, that some of their data was inconsistent, that they failed to effectively argue their case, and that they exhibited

instances of substandard writing (p. 417-418). Furthermore, Aluri accused the researchers of professional condescension, and of ethical violations concerning author and reviewer confidentiality (p. 422). Although some of Aluri's criticisms are valid, it should be noted that his work is not research-based; it is a response paper. Furthermore, most of the correctly identified flaws in the Herson, Smith, and Croxen work are not applicable to the present study. Still, the potential for any perceived levels of condescension or for any perceived ethical violations are matters of concern; those issues are fully addressed in the methods and limitations sections of this paper.

Weller (2001) created a table representation in which the reasons for LIS manuscript rejection (Landwirth, 1991; Herson, Smith, and Croxen, 1993) were shown and juxtaposed with the results from similar studies in other disciplines. To the extent that Weller created the table and its broadly defined categories of manuscript criticisms, readers can compare and contrast the results from LIS studies with those in other disciplines, and then make some general observations. However, there is little commonality in the representative data, and therefore, the only generalizable statement that can be made is that the major criticisms of scholarly manuscript submissions appear to differ from discipline to discipline, and to a modest degree, from study to study. Furthermore, given the methods used to collect the data from all of the studies included in Weller's table, and also given the imprecise nature of peer review, it is likely that major criticisms of manuscript submissions will differ to some extent from journal to journal, and from reviewer to reviewer. Whether or not the general nature or any specific elements of manuscript criticisms have changed over time, or in the

context of electronic or open access publishing, is examined in the present study. Finally, Fisher (1999) admits that assessing the actual quality of LIS papers is somewhat "problematic" (p. 79), citing the myriad differences in writing, reading, and reviewing styles. Still, as shown in the published research of numerous disciplines, there are standards by which quality characteristics of a professional literature can be illuminated for the ultimate purpose of improved scholarship. Although the LIS research in this area is dated, it provides a useful foundation from which to explore questions about the current state of the literature. And given the pressing need for LIS practitioners and educators to demonstrate their professional value in ways that institutional authorities and other decision-makers from outside the discipline can understand and appreciate, assessing the quality characteristics of the literature for the purpose of overall improvement is a critical function.

## METHOD

As noted, the objective of the present study was to investigate the quality characteristics of contemporary LIS manuscript submissions in the context of a single-topic, open access journal; by virtue of his position as co-editor for the journal, *Communications in Information Literacy* (CIL), the author was strategically situated to conduct such an investigation. As a matter of baseline information, CIL is a peer-reviewed, open access journal, which commenced publication in 2007; since that time, it has been the only journal published in North America that is devoted entirely the subject matter of information literacy in higher education.<sup>1</sup>

The present study was modeled loosely after one conducted by Herson, Smith, and

Croxen (1993), in which the authors analyzed the characteristics of authorship, manuscript submission, editorial decisions, and reviewer evaluations for manuscript submissions to the journal, *College & Research Libraries*. Although the characteristics of authorship and editorial decisions were examined in the present study to provide readers with a contextual understanding of the study sample, greater focus was devoted to the analysis of reviewer evaluations. Particular emphasis was given to examining the quality characteristics of rejected manuscripts by identifying and enumerating the major criticisms found in reviewer evaluations. It was the author's supposition that a focused examination of major criticisms in rejected papers would be a fitting approach in terms of addressing the aforementioned research questions, and ultimately, providing a useful report to the greater community of LIS readers and scholars.

### *Study Sample*

*Communications in Information Literacy* operates on the Open Journal Systems (OJS) platform<sup>2</sup>—an open source software program designed to facilitate a more automated workflow in the management of academic journals. The principal feature that distinguishes OJS from other general content management systems is the integrated function of peer review; all of the related workflow processes are managed on the OJS platform. Papers are submitted electronically, intercepted by editors, blinded, and assigned to reviewers, and reviewers submit their evaluations to the editors, who then issue editorial decisions: This all takes place by way of the OJS platform. The complete records for all papers, whether they are ultimately accepted or rejected, including all correspondences, manuscript event logs, reviewers' evaluations, and editorial decisions, are

stored in the journal's online archive. For the purpose of the present study, this provided a consistent, reliable, and stable source of data.

### *Content Analysis of Reviewer Evaluations of Rejected Papers*

There were 256 reviewer evaluations associated with the 104 rejected papers in this sample. The author conducted a content analysis of those evaluations to identify the top three (i.e., the most highly emphasized) major criticisms for each paper; those criticisms were coded and then entered into spreadsheets for quantitative analysis. In total, the author identified 14 categories of major criticisms; these categories were created primarily to reflect the manuscript evaluation instructions in the *Reviewer Guidelines for Communications in Information Literacy* (Goosney & Hollister, 2009).<sup>3</sup> To whatever extent possible, the categories of major criticisms were also aligned with those devised for the Hernon, Smith, and Croxen (1993) study, but with necessary modifications for the purpose of having clearer operational definitions.

It should be noted that the approach to identifying major criticisms in the evaluations of rejected papers differs significantly between this study and that conducted by Hernon, Smith, and Croxen. Whereas the authors of the previous work appear to have used the editors' decision letters to identify major criticisms, the author of the present investigation collected that information directly from reviewer evaluations; he likened this to the difference between reporting on secondary or primary source materials. Given his experience as co-editor for *CIL*, the author understood that reasons for rejection provided in decision letters are sometimes filtered for various purposes—mainly to spare authors from particularly harsh or unwarranted criticisms.

Furthermore, the authors of the previous study sought to identify what they deemed to be the two major criticisms of rejected papers—the primary and the secondary. Although the single primary and the single secondary reasons for manuscript rejection are sometimes evident in the content analyses of reviewer evaluations, that is not the norm. For this reason, and also for the purpose of providing a deeper understanding of manuscript rejection, the author of the present study sought to identify the top three major criticisms in reviewer evaluations, but without any speculative rankings of their intended order. The process of identifying the top three major criticisms in each evaluation was standardized to the extent that reviewers followed *CIL*'s guidelines document for reviewing content, determining quality and significance, and writing reports. Given this structure, and the general tendency of *CIL* reviewers to emphasize in a recognizable way those elements that they perceive to be the particular strengths and weaknesses of manuscript submissions, it was not a significant challenge for the author to identify major criticisms. In some instances, there were less than three major criticisms identified, and in others, there were more than three. In instances of the latter, the author selected and coded those manuscript flaws that had elicited the most emphatic and/or verbose reviewer responses. And finally, in the few instances when reviewers simply provided numeric or bulleted lists of criticisms, but without any evident rankings, the author assumed an order of importance, and he selected and coded the first three manuscript criticisms atop each of those lists.

#### LIMITATIONS AND OTHER POTENTIAL CONCERNS

There is no concealing the fact that the

author of the present study is also a co-editor for the journal from which relative data was harvested and analyzed. This may generate questions of subjectivity, intent, and the potential for breaching author and reviewer confidentiality. To begin, great consideration was given to the potential for ethical violations in this work, and great care was taken to avoid any and all breaches of author or reviewer confidentiality. Information presented here is stripped of any identifiable features; none of it can be directly or indirectly attributed to any individuals. As an added measure of diligence, the author even resisted the somewhat customary practice of illustrating study results by including blinded, though potentially useful quotations from study subjects.

As noted by Aluri (1996), the issue of sharing a journal's internal files with external researchers for the purpose of achieving greater objectivity—as done by Herson, Smith, and Croxen (1993)—is another ethical concern. There is an implied understanding in scholarly publishing that when one submits a manuscript to a journal for review, the correspondence between editor and author is confidential. The editors of *CIL* abide by this unwritten rule, and they are steadfastly opposed to sharing internal correspondence with external parties for any purposes. Still, the editors do recognize the potential value of the present study to the greater community of LIS scholars. Notwithstanding the potential limitations of editorial and researcher subjectivity, the present study was deemed to be of sufficient importance to the journal, the literature, and the discipline, and it was therefore conducted internally.

The professional literature is replete with both research and commentary on the relative strengths and weaknesses of peer

review, and given that some data for this study was collected from reviewer evaluations, there is an opening for questions of reliability. In effect, these are mainly questions of reviewer expertise, integrity, and professionalism. During the years covered in this study, the Editorial Board for *CIL* included an ACRL President, five ACRL Instruction Section chairpersons, and various architects of the original [and the forthcoming revised] *ACRL Information Literacy Competency Standards for Higher Education* (2004). While the author acknowledges the imperfections of peer review, he puts forth the professional expertise that is implied by the aforementioned credentials, and also the *CIL* reviewers' standardized use of the *Reviewer Guidelines for Communications in Information Literacy* (Goosney & Hollister, 2009) as his arguments against blanket questions of data reliability.

In Aluri's (1996) criticism of the Herson, Smith, and Croxen (1993) study, he referred to the condescending nature and "inadvertent negativism" of editorial advice, and also the potential for discouraging prospective authors (p. 416). Although the author of the present study acknowledges that scholars can perceive reviewer evaluations and editorial advice in personal or negative terms, he asserts that the professional role of journal reviewers and editors is to "...use their knowledge and experience in particular areas of research or practice to evaluate manuscript submissions as potential contributions to the journals for which they serve, and by extensions, for the greater body of LIS literature" (Hollister, 2013, p. 163). As a result, it is necessary for editorial advice to be honest and forthright, and for prospective authors to view such advice in a professional manner.

Finally, the author wished to avoid any

appearances of overt journal promotion. To this point, it is disingenuous to deny that the editors are naturally inclined to desire high-quality manuscript submissions. If the results of this study help prospective authors to improve upon the works that they submit to *CIL*, then it will be an added benefit. However, the principal intent of this paper is to address the aforementioned research questions by investigating and reporting on the quality characteristics of contemporary LIS manuscript submissions, and to do so in the context of a single-topic, open access journal.

## RESULTS

### *Submissions*

Between the years of 2007-2013, prospective authors submitted a total of 224 manuscripts to the journal, *CIL*, and of those, 173 underwent the formal peer review process. The remaining 51 non-reviewed papers included editorials, perspectives pieces, book and conference reviews, and invited works for theme issues. From the pool of peer-evaluated papers, 64 were ultimately accepted for publication, 104 were rejected, and 5 were still under review at the time of this study (see Table 1). Factoring out the undecided manuscripts, these numbers translated into an overall acceptance rate of 37% for the journal's reviewed papers during its first seven years of publication.

As shown in Table 2, 78% percent of the reviewed manuscripts included in this study were either research papers (n=68) or case studies (n=67); the remaining 22% were review papers (n=28) and theoretical works (n=10).<sup>4</sup> Overall, research papers and case studies accounted for 91% (n=58) of all accepted papers and 71% (n=74) of those that were rejected; review papers and theoretical works accounted for 9% (n=6) of



TABLE 1—MANUSCRIPTS SUBMITTED TO CIL, 2007-2013

Year	Total Submissions	Non-Reviewed	Reviewed	Accepted	Rejected	Undecided
2007	29	5	24	13	11	0
2008	28	5	23	7	16	0
2009*	35	13	22	11	11	0
2010	32	3	29	9	20	0
2011	23	4	19	10	9	0
2012	40	5	35	9	26	0
2013*	37	16	21	5	11	5
<b>Total</b>	<b>224</b>	<b>51</b>	<b>173</b>	<b>64</b>	<b>104</b>	<b>5</b>

\* Years during which CIL published theme issues that included a high percentage of invited, non-reviewed papers.

accepted papers and 29% (n=30) of rejected ones. Factoring out the undecided submissions, 47% of case studies, 41% of research papers, 40% of theoretical works, and 14% of review papers were ultimately accepted for publication.

Overall there were 370 authors associated with the 224 manuscripts analyzed in this study; among those contributors, 49 either wrote or co-wrote more than one of the submitted papers. Seventy-three percent (n=269) of the authors self-identified as being affiliated with public institutions of higher education, and 24% (n=88) self-identified as being affiliated with private

institutions; the remaining 3% of contributing authors were from professional organizations (n=7); undetermined institutions (n=5), or for-profit institutions of higher education (n=1).

Ninety-four percent (n=346) of the contributing authors self-identified as being affiliated with four-year colleges or universities. The remaining 6% of the author sample represented professional associations (n=7), community and junior colleges (n=6), undetermined institutions (n=5), vocational and training schools (n=4), online universities (n=1), and public library systems (n=1). Among the

TABLE 2—REVIEWED CIL MANUSCRIPTS, 2007-2013, BY TYPE

Manuscript Type	Number	Accepted	Rejected	Undecided
Research	68	27	39	2
Case study	67	31	35	1
Literature review	28	3	24	1
Theoretical	10	3	6	1
<b>Total</b>	<b>173</b>	<b>64</b>	<b>104</b>	<b>5</b>

represented, author-affiliated four-year colleges and universities, and not accounting for institutions with multiple contributing authors, 86% (n=297) were identified by virtue of their web sites as being universities, 7% (n=24) were liberal arts colleges, 7% (n=23) were special focus institutions, and 3% (n=12) were exclusively arts or sciences colleges.<sup>5</sup> Among the represented universities, 33% (n=98) were Association of Research Libraries (ARL) member institutions. And among the special focus institutions, 19 were religiously-affiliated, two were single-gender, one was military, and one was online-only (n=1).

Authors affiliated with institutions in 19 countries submitted manuscripts to *CIL* from 2007-2013. In terms of submission numbers, the represented countries were the United States (n=171), India (n=16), Canada (n=10), Nigeria (6), Cyprus (n=5), United Kingdom (n=3), and one each from Australia, Colombia, Denmark, Hungary, Iran, Ireland, New Zealand, Norway, Saudi Arabia, Singapore, Sri Lanka, Taiwan, and Trinidad and Tobago. Manuscripts submitted by authors from all of the aforementioned countries were included in the overall pool of those that underwent

peer review, though papers from only seven countries were ultimately accepted for publication: United States (n=55), Canada (n=3), United Kingdom (n=2), and one each from Australia, India, Ireland, and Norway.

### *Authorship of Reviewed Papers*

Overall there were 303 authors associated with the 173 peer-evaluated manuscripts that were analyzed in this study; among those contributors, 25 either wrote or co-wrote more than one of the submitted papers. As shown in Table 3, 50% (n=87) of the reviewed papers had one author, 33% of the papers had two authors, 12% had three, and 5% had four or more.

The self-identified professional status of contributing authors in this pool was as follows: 72% (n=218) library practitioners; 17% (n=51) non-LIS educators; 8% (n=25) LIS educators; 2% (n=5) professional organization representatives; and 1% (n=4) students. As shown in Table 4, 65% percent (n=112) of the papers were exclusively authored by one or more library practitioners, 11% (n=19) by non-LIS educators, 4% (n=7) by LIS educators, 2% (n=4) by students, and 1% (n=2) by professional organization representatives. Seventeen percent (n=29) of the papers in

TABLE 3—NUMBER OF AUTHORS PER PEER-REVIEWED MANUSCRIPT

Number of Authors	Reviewed Submissions	Accepted	Rejected	Acceptance Rate*
One	87	20	67	23%
Two	57	25	32	44%
Three	20	11	9	55%
Four or more	9	8	1	89%
<b>Total</b>	<b>173</b>	<b>64</b>	<b>104</b>	--

\* Five undecided manuscripts were factored out in the calculation of acceptance rates.

this pool were co-authored by various combinations of professional groups; these were led by library practitioners and LIS faculty (7%, n=13), and by library practitioners and non-LIS educators (7%, n=12).

### *Accepted Papers*

There were either two or three CIL reviewers initially assigned to each of the 64 accepted papers in this sample. Four manuscripts were resubmitted for a second round of peer review, and each of those, likewise, had either two of three reviewers assigned. In total, 179 reviewer evaluations of accepted papers were analyzed. The average turnaround times for manuscript reviews—i.e., the number of days between manuscript assignments and completed evaluations—was 39 days. The reviewers' initial, aggregate recommendations for papers in this sample broke down as

follows: 35% (n=62) accept submission; 41% (n=74) revisions required; 14% (n=25) resubmit for review; and 10% (n=18) reject submission. The initial, aggregate editorial decisions for these 64 reviewed papers, was 30% (n=19) accept submission, 64% (n=41) revisions required; and 6% (n=4) resubmit for review. Thirteen of the initially accepted papers were issued provisional acceptance decisions; that is, the CIL editors qualified their acceptance decisions based on the assumption that the authors would make minor, but necessary revisions.

To identify the most commonly recommended revisions in papers that were ultimately accepted for publication, the author of this study analyzed the evaluations for manuscripts that received the following editorial decisions: provisional accept submission, revisions required, and resubmit for review (n=173). Although the overall

TABLE 4—PEER-REVIEWED MANUSCRIPTS AND AUTHORS' PROFESSIONAL STATUS

Professional Status	Submissions	Accepted	Rejected	Undecided
Library practitioner (Group A)	112	46	61	5
Non-LIS educator (Group B)	19	2	17	0
LIS educator (Group C)	7	2	5	0
Student (Group D)	4	1	3	0
Professional association rep. (Group E)	2	1	1	0
Groups A & B	12	9	3	0
Groups A & C	13	2	11	0
Groups A & D	1	0	1	0
Groups A, B, & C	1	0	1	0
Groups A, B, & E	1	1	0	0
Groups B & C	1	0	1	0
<b>Total</b>	<b>173</b>	<b>64</b>	<b>104</b>	<b>5</b>

body of reviewer criticisms related to most elements of the submitted papers, the most commonly recommended improvements pertained to the quality of writing 57% (n=99), the organization 41% (n=71), the literature review 40% (n=70), the conclusions 35% (n=61), the methods 27% (n=47), and the results 20% (n=35).

The author of this study also analyzed reviewer evaluations in an effort to identify the particular strengths of papers that were ultimately accepted for publication. Although the criticisms in reviewer evaluations were primarily focused on recommended revisions, there were numerous positive themes that emerged. The most commonly occurring positive comments were as follows: The papers contained unique or noteworthy information 56% (n=100); the subject matter was appropriate for the intended journal 46% (n=82); and they were well-written 31% (n=55).

### *Rejected Papers*

There were either two or three CIL reviewers assigned to each of the 104 rejected papers in this sample; in total, 256 of their evaluations were analyzed. The average turnaround time for manuscript reviews was 41 days. The reviewers' aggregate recommendations for papers in this sample broke down as follows: 44% (n=113) decline submission; 28% (n=72) resubmit for review; 25% (n=64) revisions required; and 3% (n=7) accept submission. An Editorial Board member was assigned as a reviewer for each manuscript, and as a matter of internal policy for CIL, that individual's recommendations received greater consideration in terms of issuing editorial decisions. Editorial Board members' aggregate recommendations for papers in this sample broke down as follows: 54% (n=56) decline submission;

26% (n=27) resubmit for review; and 20% (n=21) revisions required. And finally, the aggregate editorial decisions for these 104 reviewed papers were 89% (n=93) decline submission, 10% (n=10) resubmit for review, and 1% (n=1) revisions required. Authors who received "resubmit for review" or "revisions required" editorial decisions either withdrew their papers, or they failed to resubmit in a timely manner, and as a result, their works were ultimately rejected.

Thirty-eight percent (n=39) of the rejected papers in this sample were subsequently found to have been published or publicly posted elsewhere. Most of these works appeared in other journals (n=25) or trade magazines (n=2); some were either posted on personal web sites (n=8) or in institutional repositories (n=2), and two were uploaded to the *e-LIS Repository* as conference papers.<sup>6</sup> The web sites for each of the aforementioned 25 journals indicated that they were peer-reviewed publications; 16 of them were listed in the *Ulrich's Periodicals Directory*, and 15 of them were indexed in the *Library, Information Science and Technology Abstracts (LISTA)* database.<sup>7</sup> Also, the web sites for 15 of the aforementioned 25 journals indicated that they were open access publications, and five of those were listed in the *Directory of Open Access Journals*.<sup>8</sup> The author of this study conducted a review of the former CIL manuscripts published in these 25 journals. Although a point-by-point analysis was not performed, the author noted that 12 of these papers had undergone modest to significant revisions, and that the remaining 13 papers had undergone little or no revisions. Furthermore, the author noted that 10 of the 12 modestly to significantly revised papers were published in journals that were both listed in *Ulrich's Periodicals Directory* and indexed in the LISTA database. Papers with few or no revisions were published in

journals with less representation in these sources: six of 16 in *Ulrich's*, and five of 15 in LISTA. Finally, one of the five papers published in a DOAJ-listed, open access journals had undergone modest to significant revisions; the remaining four showed evidence of few or no changes.

As shown in Table 5, there were 14 categories of major criticisms identified in the reviewer evaluations of rejected papers. The author identified the top three, most highly emphasized criticisms in each reviewer evaluation. As noted in the method section, some evaluations included less than three major criticisms, and others had more than three. In instances of the latter, the author selected and coded those manuscript flaws that had elicited the most emphatic reviewer responses; these were the flaws that truly affected reviewer recommendations and editorial decisions.

The author analyzed 256 reviewer evaluations and identified and coded a total of 607 major criticisms; on average, there were 2.4 major criticisms per evaluation. Although the evaluations often included numerous minor criticisms that could be identified and coded into several of the various the categories in Table 5, the major criticisms appeared to be more focused on the overall quality of presentation and the quality of argument in rejected papers. The overall value of manuscripts relative to the professional literature, and the appropriateness of manuscript subject matter were also noteworthy themes. To a lesser degree, reviewers indicated that issues of scientific validity were major concerning factors in their evaluations.

## DISCUSSION

To advance the discussion, the present study

**TABLE 5—MAJOR CRITICISMS IN REVIEWER EVALUATIONS OF REJECTED MANUSCRIPTS**

<b>Criticism</b>	<b>Number</b>	<b>Percent</b>
Poorly written	91	36%
Insufficiently unique or noteworthy	79	31%
Poorly developed argument	62	24%
Out of scope for journal	56	22%
Poorly defined; poorly framed	48	19%
Unscholarly; too anecdotal	47	18%
Problematic literature review	42	16%
Problematic method(s)	42	16%
Problematic conclusion(s)	33	13%
Problematic purpose, objective, question, or hypothesis	30	12%
Poorly organized	28	11%
Problematic evidence or result(s)	26	10%
Too broad; lacks focus	12	5%
Too narrow; not generalizable	11	4%

sample needs to be viewed as representative within the context of the professional journal literature. Accordingly, the author compared *CIL*'s annual numbers of manuscript submissions and its general rates of acceptance to the average, overall submission numbers and acceptance rates among other disciplinary journals. There is only dated research from which to compare and contrast with respect to the average numbers of manuscript submissions received by scholarly LIS journals. The results of Via's (1996) investigation into this area were highly variable; however, the refereed LIS journals included in her study (n=49) received an average of 30 manuscripts during the sample year of 1994.<sup>9</sup> The average annual number of papers received by *CIL* is a comparable 32, and as shown in Table 1, that has been a stable and consistent average over the course of the journal's first seven years of publication. Comparing acceptance rates between *CIL* and other relevant LIS journals is more easily accomplished. Current data from *Cabell's Directory of Publishing Opportunities in Educational Technology and Library Science* suggests that there is an average manuscript acceptance rate among peer-reviewed LIS journals categorized in the subject area of academic librarianship of 43%.<sup>10</sup> The acceptance rate for *CIL* is a comparable, if not slightly more selective 37%. Given these criteria—average number of manuscript submissions and average acceptance rates—and also seven years of reliable data, the author would argue that the present study sample can be regarded as sufficiently representative to allow for relative comparisons and judgments.

### *Submissions*

Comparing the types of papers accepted for publication in *CIL* to those that were analyzed in previous research may indicate a shift in the professional literature toward

more practice-based works; however, comparative data may also be indicative of a particular characteristic of manuscript submissions to single-topic or open access journals. Once again, there is only dated research to reply upon for comparisons. However, Jarvelin and Vakkari (1993) conducted a study showing that, excluding editorial material, LIS journals were comprised of 54% research papers and 46% "professional articles" (p. 395). Using Jarvelin and Vakkari's definitions for what constitutes these two types of published papers, the present study sample was comprised of 42% research papers and 58% professional articles. However, the differences in methodologies between these two studies are significant enough to account for variable results. And as Fisher (1999) relates, "There has been, continues to be, and in all likelihood will remain, a tension in our professional literature between the demand for more rigorous empirical/theoretical research and more applied research that focuses on specific job-related issues" (p. 70).

### *Authorship*

The author affiliation findings in the present study are consistent with those of Wiberley, Hurd, and Weller (2006), who showed that librarians from large research universities are generally a more productive class of contributors to the professional literature. Interestingly, 26% (n=98) of the overall number of contributors in the present study (n=370) were affiliated with ARL member institutions, but that group also represented 40% (n= 54) of the overall number of authors of accepted papers (n=135). These findings are consistent with those of Best and Kneip (2010), who showed there to be a strong correlation between ARL affiliation and librarians' motivation and ability to publish in the professional literature.

The results presented in Table 3 suggest a strong correlation between the numbers of authors per manuscript and the overall rates of acceptance: To wit, greater numbers of authors per paper appear to correlate with higher overall rates of acceptance, and lesser numbers equate with lower rates. Still, single-authored works represented the largest category of authorship in this study, which makes for an interesting comparison: Fifty percent (n=87) of the submitted papers in this study were single-authored, but 69% (n=44) of the accepted papers had two or more authors. These findings are modestly consistent with those of Herson, Smith, and Croxen (1993), whose study sample was comprised of 72% single-authored manuscripts and a disproportionately high percentage of multi-authored papers that were accepted for publication (35%). The percentage of single-authored works in this study also appears to continue a long-term, general trend in the discipline toward collaborative authorship. Terry's (1996) analysis of papers published in the journal, *College & Research Libraries*, showed a notable and steady decrease in single-authored works over the course of 55 years: 96% from 1939-1944, and 41% from 1989-1994. Herson, Smith, and Croxen's analysis (72% single-authorship) covered the years 1980-1991, and the present study (50% single-authorship) covered the years 2007-2013.

Nearly three quarters (72%, n=218) of the contributing authors in this study were library practitioners. This is remarkably consistent with the findings in Herson, Smith, and Croxen's study (76%). The overall acceptance rate for papers submitted by one or more of these professionals in the present study, not factoring for undecided submissions, was slightly higher than CIL's overall acceptance rate: 41%/37%. Seventy-two percent (n=46) of the accepted papers

were written by library practitioners only; of those works, 19 were single-authored, and 25 had two or more contributors. The overall acceptance rate for papers authored or co-authored by one or more non-library practitioners, not factoring for undecided submissions, was slightly lower than CIL's overall acceptance rate: 30%/37%. From this group, papers that were collaborations between library practitioners and non-LIS faculty had the highest rate of acceptance (75%, n=12); removing those papers, the overall acceptance rate for papers authored or co-authored by one or more non-library practitioners was 18% (n=9). In the author's opinion, the only other noteworthy comparative data here relates to LIS faculty authorship. Whereas 55% (n=61/110) of the papers authored or co-authored by LIS faculty in the Herson, Smith, and Croxen study were accepted for publication, only 18% (n=4/22) of those types of papers were accepted in the present study. These results are open to any combination of possible interpretations involving sample size, journal purview, publication expectations for LIS faculty, editorial preferences, general trends toward a more practice-based literature, or overall manuscript quality. It should be noted, however, that the substandard quality of writing was the most commonly cited major criticism in 45% (n=10) of the rejected papers in this subset.

### *Accepted Papers*

The most common positive comments provided in reviewer evaluations for accepted papers in the present study were as follows: contained unique or noteworthy information; appropriate for the intended journal; and well-written. Interestingly, the leading positive comments provided in evaluations for accepted papers in the Herson, Smith, and Croxen study were precisely the same, but in reverse order. The most commonly recommended revision for

accepted papers in the present study pertained to the qualities of writing and editing (57%), followed by overall organization, and issues concerning the literature review. The leading recommended revision for accepted papers in the Herson, Smith, and Croxen study also pertained to the qualities of writing and editing (45%), followed by “interpretation and conclusions,” and “presentation of results” (p. 311).

### *Rejected Papers*

As with the results Landwirth’s (1991) work, the results of the present study on the quality characteristics of rejected papers can be grouped into the following, mostly general categories for the purpose of making general observations:

- Poor quality of presentation (i.e., substandard writing or organization);
- Poorly developed ideas (i.e., premature, poorly defined, poorly framed, lacking focus, or superficial);
- Lack of new or noteworthy information (i.e., unoriginal or commonplace)
- Scientific invalidity (i.e., design, method, or conclusions);
- Out of scope (i.e., trivial, too specialized, or limited appeal).

The category of prior publication elsewhere, which was noted as a problem in previous research, was not shown to be an issue in the present study.

Comparing the results from the present study to that of Herson, Smith, and Croxen seems to make it clear that the issue of substandard writing has emerged as a particularly concerning quality characteristic of LIS manuscripts; this was

the most common major criticism in the present study, occurring in over one-third of all reviewer evaluations of rejected papers. And it warrants repeating here that issues pertaining to the quality of writing were also the most commonly recommended revisions for papers that were ultimately accepted for publication in the present study. In the Herson, Smith, and Croxen study, substandard writing was the primary major criticism in 9% of their sample, and it was the secondary major criticism in another 9%.

Comparing the two studies also seems to make it clear that three quality characteristics in the general category of poorly developed ideas have emerged as areas of concern: poorly developed argument, poorly defined/framed, and unscholarly/too anecdotal. The issue of the poorly developed argument was noted as a major criticism in one-quarter of all reviewer evaluations of rejected papers in the present study. In the Herson, Smith, and Croxen study, the poorly developed idea was the primary major criticism in less than 3% of their sample, and it was the secondary major criticism in less than 1%. The quality characteristics of poorly defined/framed papers and those that are unscholarly/too anecdotal yielded similar comparisons.

Study results concerning two additional categories—lack of new or noteworthy information, and out of scope—showed that both issues continue to be among the most highly cited major criticisms of rejected LIS papers. Indeed, it would appear that little has changed since the Herson, Smith, and Croxen (1993) study. And the same can be said for the general category of scientific invalidity, with the possible exception of one quality characteristic—problematic method(s)—which showed a noteworthy



increase in the overall percentage of major criticisms.

Finally, the 38% of rejected papers in this study that were found to have been subsequently published or publicly posted elsewhere aligns well the findings of Hernon, Smith, and Croxen; their study showed that 42% of rejected papers “appeared in other periodicals, in conference proceedings, and as ERIC publications” (p. 317). Further analysis in the present study showed a correlation between rejected papers that had undergone modest to significant revisions and subsequent publication in journals that are listed in or indexed by standard, disciplinary, bibliographic sources (e.g., *Ulrich’s Periodicals Directory*, *Directory of Open Access Journals*, *Library, Information Science and Technology Abstracts*). The same analysis also showed a correlation between rejected papers that had undergone few or no revisions and publication in journals that are not well represented by the aforementioned bibliographic sources.

## CONCLUSIONS

Although a handful of disciplinary journals are primarily intended for LIS faculty, the results from this study and the cited research suggest that library practitioners—particularly those who are affiliated with large, public universities—continue to represent the largest overall percentage of contributors to the scholarly LIS literature. This is not a surprise finding; it is easily explained by the numbers of librarians in these institutions, and by the professional expectations that are characteristic of their positions, to which a substantial body of research has already been devoted. The results of this study and the cited research also suggest the possibility that the percentages of LIS manuscript submissions

might be trending toward so-called “professional papers” (i.e., case studies) and away from research papers. If so, this may in part be explained by the nature of a practitioner-dominated literature, by the increasing productivity demands on academic librarians in general, by the nature of papers that are characteristically submitted to journals like the one used in this study, or perhaps, by a more fundamental shift in the discipline. The author proposes this as a research question that merits further investigation.

As discussed, there is a long-term, general trend in the discipline away from single-authored works, and toward collaborative authorship; the results from this study appear to demonstrate a continuation of that trend. Perhaps more significantly, however, the results show that greater numbers of authors per paper appear to correlate with higher overall rates of manuscript acceptance, and that lesser numbers equate with lower rates. Relatedly, the results also show that some forms of collaborative authorship appear to be more successful than others. For instance, there is a strikingly high rate of manuscript acceptance for papers written by a combination of library practitioners and non-LIS faculty. This has additional implications in terms of the characteristic types of LIS manuscript submissions: To wit, all of the accepted works in the present study that were co-authored by library practitioners and non-LIS faculty were case study papers.

The analysis of reviewer evaluations, particularly those of rejected papers, is somewhat revealing in terms of judging the overall quality characteristics of LIS manuscript submissions. For the purpose of illuminating those characteristics, it is useful to compare and contrast with the findings in

previous works. In the conclusion to her paper, “Why authors fail,” Landwirth (1991) suggested the following to prospective authors: “To improve your chances of publication, you must pick a new and interesting subject; develop a well-focused, clearly thought-out argument; place it in the proper context; write clearly and concisely using the required style; use appropriate, well-carried-out methodology; carefully interpret your results; make sure you submit to an in-scope journal; and submit to only one journal” (p. 338). As shown in Table 5, these recommendations align remarkably well with the most highly cited criticisms of rejected papers in the present study.

The major criticisms found in reviewer evaluations for this study are shown to fit into five general categories: poor quality of presentation; poorly developed ideas; lack of new or noteworthy information; scientific invalidity; and out of scope. Comparing the results of this study to that of Herson, Smith, and Croxson suggests that the quality characteristics of substandard writing and poorly developed arguments have emerged as areas of scholarship upon which authors should endeavor to improve. The following major criticisms also showed noteworthy increases in frequency and warrant further attention: poor defined/poorly framed, unscholarly/too anecdotal, and problematic method(s). Other leading criticisms—insufficiently unique or noteworthy, and out of scope—appear to be attributable to similarly high, but somewhat stable percentages of LIS papers when comparing the results from both studies.

The extent to which the quality characteristics of LIS manuscripts reported in the present study are attributable to the greater body of the disciplinary literature, and the extent to which those characteristics

have changed to any significant degree are both arguable. As noted, the relative research is sparse and dated, there is little commonality in the representative data, and there are questions as to the reliability of data that is gleaned from the enterprise of peer review. Additionally, the present study sample, although deemed by the author to be a representative and instructive one, is taken from a single journal; as a result, it is not generalizable. To illuminate or assess the overall quality and value of the professional literature, additional research is needed. The author of the present study encourages his LIS journal editor colleagues to conduct similar content analyses of papers submitted to their publications, but to avoid the traps of previous research that commonly reported on issues of author gender, regional affiliations, and other subject matter that is not germane to a discourse on the overall quality and value of LIS literature. Furthermore, the author strongly recommends that such studies are conducted internally, but with the greatest of care, in keeping with the implied codes of professionalism and editorial integrity.

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## FOOTNOTES

1. The journal, *Research Strategies*, ceased publication in 2005, and the *Journal of Information Literacy* is published in the United Kingdom.
2. Open Journal Systems was developed as part of the multi-university initiative, the Public Knowledge Project. Details are available at <http://pkp.sfu.ca/ojs/>.
3. The *Reviewer Guidelines for Communications in Information Literacy* are not publicly viewable on the CIL web site. However, they are reprinted, with permission of the authors, in Christopher Hollister's *Handbook of Academic Writing for Librarians* (ACRL, 2013), pp. 186-194.
4. For definitions of different types of scholarly papers, refer to Hollister's aforementioned *Handbook of Academic Writing for Librarians* (ACRL, 2013), pp. 109-113.
5. Attentive readers will note that these figures add up to a total of 103% (n=356); this seeming discrepancy is accounted for by ten institutions that self-identified as being both universities and special focus institutions.
6. e-LIS Repository is available at <http://eprints.rclis.org/>.
7. Searches conducted in the *Ulrich's Periodicals Directory*, and in the *Library, Information Science and Technology Abstracts*

database, August, 2013.

8. Search conducted in the *Directory of Open Access Journals*, August, 2013.
9. To generate the average number of papers submitted to refereed LIS journals, the author of the present study used the data presented in Table 1 of Via's (1996) study, but used *Ulrich's Periodicals Directory* to remove all instances non-refereed publications.
10. Search conducted in *Cabell's Directory of Publishing Opportunities in Educational Technology and Library Science*, November 26, 2013. Only journals listed as blind or double-blind peer-reviewed (n=76) were used to calculate overall acceptance rates.

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