

Non-alphanumeric Characters in the Title of Research Papers in Two Indian LIS Journals: A Comparative Study

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ABSTRACT

The study is undertaken to compare the use of non-alphanumeric characters in the titles of articles published in the IASLIC Bulletin (IB) and the Annals of Library and Information Studies (ALIS). This study is based on the total 567 publications appeared on IB and ALIS between the year 2011 and 2021. This study includes the distribution of publications by year, patterns of authorship, and the use of five often used non-alphanumeric characters: colon, comma, hyphen, question mark, and parenthesis. ALIS published 336 papers and IB published 231 articles over the study period, with an average relative growth rate (RGR) of 1.63 %. Cooperative authoring is more prevalent in both journals. The outcome also shows that 389 titles-216 in ALIS and 173 in IB-of the total 567 contributions appeared with non-alphanumeric characters. The colon (:) is the most often used alpha numeric character; in ALIS (78.85 %) and IB (64.51 %), double authors use it frequently. The study is an original research work intends to have a profound and noteworthy effect on researchers and library patrons who delve into the world of non-alphanumeric characters in research paper titles.

Keywords: ALIS; IASLIC bulletin; Article title; Colon in title; Comma in title; Hyphen in title; Question marks in title; Parentheses in title

1. INTRODUCTION

A research article's title typically provides readers with the first information about the published work. Making the biggest effect with the writing requires a title that is both attention-grabbing and sufficiently descriptive. It is obvious that a publication needs to be presented to a researcher in an effective way in order to grab potential readers' attention, and the title may often do this in many situations¹. Therefore, in order to get readers to read the manuscript all the way through and use it as a reference, we need to create a title that is attention-grabbing, effectively communicates the content of the work, and satiates their curiosity. A well-crafted title clearly states the purpose and path of the investigation. They should ideally summarise the content of an article to help someone decide whether to read the abstract for more information¹. There are disciplinary differences in the constructions of article titles. For example, complete sentences are more common in some disciplines than others and the use of compound titles, such as with a colon in the middle, is particularly common in the social sciences²⁻³. Titles can be questions, but these are rare in all disciplines.⁴⁻⁵ Titles that contain characters other than alphanumeric can be more engaging for the reader and have a better overall structure. For a scholarly

paper in economics, a short title with a question mark or another non-alphanumeric character works well.⁶ The use of non-alphanumeric characters in research paper titles is a longstanding and well accepted practice among authors in the field of library and information science. Therefore, the current study's objectives are to determine how frequently non-alphanumeric characters appear in the titles of articles published in two renowned Indian library and information science journals, Annals of Library and Information Studies and IASLIC Bulletin, between 2011 and 2021. Only five non-alphanumeric characters that are included in the article titles of two Indian library and information science publications are considered in this study. Furthermore, this study may provide as a medium for additional research on the use of non-alphanumeric characters in article titles that are published in other reputable publications spanning a variety of academic fields.

2. LITERATURE REVIEW

A number of studies, whether empirical or not, have been conducted within a discipline or across disciplines concerning the use of non-alphanumeric characters in research article titles. Non-alphanumeric characters are used in 68 % of titles across a range of academic subjects, and this number was relatively stable between 1999 and 2008⁷. The studies of Buter & van Raan⁷,

Gnewuch & Wohlrabe⁸, and Keating⁹, *et al.*, revealed that relatively inconsequential title writing practices, such as the inclusion of non-alphanumeric characters, can impact on an article's citations.

Dillon¹⁰ demonstrated how the colon (':') has evolved into a regular character in scientific journal titles. When Lewison and Hartley¹¹ looked at how many words and if a colon was used in article titles over time, they discovered that both had gone up between 1981 and 2001. Ball¹² searched through the names of almost 20 million scientific publications in the fields of biology, physics, and medicine that were available on Scopus between 1966 and 2005. Over the period of 40 years, he found that the frequency of publications with question mark titles climbed from 50 % to over 200 %.

Through a number of small-scale experiments, Hartley¹³ is unable to identify any correlation between colons in the title and citations. Additionally, Jamali and Nikzad¹⁴ discover that there are variations in downloads and citations between papers with various names, particularly those with question titles, which have a tendency to be downloaded more frequently than other types. In order to determine whether certain characteristics of article titles from open access journals may be used to predict the quantity of views and citations for an article; Paiva¹⁵, *et al.* evaluated these elements in their study. Evaluations were conducted on research articles from 12 Biomed Central (BMC) publications and all Public Library of Science (PLOS) journals. The findings indicated that titles with a question mark, which made reference to a particular area, and that, employed a colon or hyphen were linked to lower number of citations.

The content and substance of article titles have been studied from a variety of disciplines, according to a review of the literature; however, no study has yet undertaken how non-alphanumeric characters like colon, comma, dash, question mark and parentheses are used in the titles of articles published in Library & Information Science journals. In this understudied field, this study aims to make a contribution.

3. THE SOURCE JOURNALS

Annals of Library and Information Studies: S.R. Ranganathan, the father of library science in India, served as the journal's founding editor. Published quarterly, the journal was first published in 1954 under the name Annals of Library Science by the Indian National Scientific Documentation Centre (INSDOC), which is now known as NISCAIR. The magazine has established itself as the premier library science journal in India. Annals changed along with library science as a field. The extended title of the journal, Annals of Library Science and Documentation, adopted in 1964, represents the journal's expanding purview. After more than 50 years, the journal known as Annals is still growing and regarded as a reputable publication. The focus has changed from documentation to information itself in the current information era. Therefore, in 2001,

the name Annals was changed to Annals of Library and Information Studies in order to better reflect the function of the discipline of library and information science in the modern information era. The new title alludes to the information's evolving importance and the vast potential for more recent library and information science research. It brings out original research papers, review papers and short communications addressing the various issues in the field of Library and Information Science. The journal is now accessible on an open access platform after sixty years of publishing. Currently the journal is indexed in Scopus database.

IASLIC Bulletin, the official journal of the Indian Association of Special Libraries and Information Centres, is a renowned publication in the library and information science fields. It is published from Kolkata. In 1956, the first edition was published. The journal's mission is to advance and disseminate fundamental and practical knowledge in library and information science in a manner that is accessible to peers in the field who are interested in the field both domestically and abroad. This quarterly publication is subject to peer review. The journal publishes research articles, book reviews, short communications, proceedings and papers. The IASLIC Bulletin has been abstracted and indexed by the Indian Library Science Abstracts (ILSA), INSPEC, Library and Information Science Abstracts (LISA), and Guide to Indian Periodical Literature.

4. OBJECTIVES OF THE STUDY

Comparing the use of non-alphanumeric characters in research paper titles published in ALIS and IB between 2011 and 2022 is the primary objective of this study. The specific objectives are to:

- Find out the distribution of publications by year;
- Observe the distribution of authorship in publications;
- Ascertain the distribution of titles containing non-alphanumeric characters;
- Find out the non-alphanumeric character with respect to the year of publications; and
- Ascertain the non-alphanumeric character with respect to the number of authors.

5. METHODOLOGY

The IASLIC Bulletin (IB) and the Annals of Library and Information Studies (ALIS) have been chosen as the study's source journals. The 44 issues of the 11 volumes- Vol. 58-68 of ALIS and Vol. 56-66 of IB-published between 2011 and 2021 are the subject of this paper's analysis. Two issues, numbered 2 and 3, were published in the same issue of IB in 2016. Every title of a paper published during that time was gathered manually from the print versions of both journals, and some were also retrieved from the websites of the individual journals. The study excluded the titles of other documents, such as editorials, guest editorials, review papers, book reviews, short communications, other communications, publishing

policies, etc. and only took into account the titles of journal articles published between 2011 and 2021. The mean relative growth rate has been employed to compare growth of publications and non-alphanumeric characters in titles of research papers. The investigation being fairly analytical, data have been divided into specific subdivisions and discussed in the light of the objectives identified for the study.

6. ANALYSIS AND INTERPRETATION

Total 567 articles were published during the period 2011-2021 and have been recorded for the present study.

Table 1 shows that 336 articles were published in ALIS and 231 papers in the IASLIC Bulletin between 2011 and 2021. The largest number of articles-41 in ALIS and 25 in IB-were published in both journals in

2021. Together, the two source journals published a total of 567 articles with an average Relative Growth Rate (RGR) of 1.63 %. The relative growth rate varied between 2011 and 2021, ranging from 0.79 to 2.15.

The authorship pattern for the publications published between 2011 and 2021 is shown in Table 2. Cooperative authorship is prominent in both the journals. Two authors (DA) published 326 articles (48.51 %) in ALIS, followed by three authors (TA) in 147, four authors (FA) in 32, and more than four authors (F+A) in 25. There were 111 (33.03 %) single-authored (SA) papers in total in ALIS. Comparably, in IB 248(53.69 %) articles were authored by two authors, 81(11.69 %) by three authors, 4(0.43 %) by four authors and 79(34.19 %) by single author. This shows the increasing collaboration on authorship pattern in both the journals.

Table 1. Year-wise output of publications

Year	No. of publications (ALIS)	No. of publications (IB)	Quantum of output	Cumulative output	W1	W2	RGR	Mean RGR
2011	36	23	59	59	4.08	4.08	-	1.63
2012	26	23	49	108	3.89	4.68	0.79	
2013	35	18	53	161	3.97	5.08	1.11	
2014	34	23	57	218	4.04	5.38	1.34	
2015	37	18	55	273	4.01	5.61	1.60	
2016	31	16	47	320	3.85	5.77	1.92	
2017	28	22	50	370	3.91	5.91	2.00	
2018	25	19	44	414	3.78	6.03	2.25	
2019	17	23	40	454	3.69	6.12	2.43	
2020	26	21	47	501	3.85	6.22	2.37	
2021	41	25	66	567	4.19	6.34	2.15	
Total	336	231	567					

Table 2. Year wise authorship distribution of publications

Year	Annals of Library and Information Studies							IASLIC Bulletin						
	SA	DA	TA	FA	F+A	TC	TA	SA	DA	TA	FA	F+A	TC	TA
2011	14	14	7	0	1	36	68	12	8	3	0	0	23	37
2012	10	9	7	0	0	26	49	9	9	5	0	0	23	42
2013	11	17	5	0	2	35	70	8	9	1	0	0	18	29
2014	11	18	3	2	0	34	64	13	10	0	0	0	23	33
2015	17	14	4	1	1	37	66	4	12	2	0	0	18	34
2016	8	17	3	2	1	31	64	4	9	3	0	0	16	31
2017	8	14	6	0	0	28	54	6	12	4	0	0	22	42
2018	6	15	2	2	0	25	50	3	14	2	0	0	19	37
2019	7	7	2	1	0	17	31	6	13	4	0	0	23	44
2020	6	17	3	0	0	26	49	9	12	0	0	0	21	33
2021	13	21	7	0	0	41	76	5	16	3	1	0	25	49
TC	111	163	49	8	5	336	-	79	124	27	1	0	231	-
TA	111	326	147	32	25	-	641	79	248	81	4	-	-	412
%	33.03	48.51	14.59	2.38	1.49	100 %	-	34.19	53.69	11.69	0.43	-	100 %	-

Table 3. Number and distribution of titles with non-alphanumeric characters (NAC)

Year	No. of titles with NAC in ALIS	No. of titles with NAC in IB	Quantum of output	Cumulative output	W1	W2	RGR	Mean RGR
2011	23	13	36	36	3.58	3.58	-	1.59
2012	16	16	32	68	3.47	4.22	0.75	
2013	21	15	36	104	3.58	4.64	1.06	
2014	18	21	39	143	3.66	4.96	1.30	
2015	22	11	33	176	3.50	5.17	1.67	
2016	24	15	39	215	3.66	5.37	1.71	
2017	17	19	36	251	3.58	5.53	1.95	
2018	15	15	30	281	3.40	5.64	2.24	
2019	12	19	31	312	3.43	5.74	2.31	
2020	19	11	30	342	3.40	5.83	2.43	
2021	29	18	47	389	3.85	5.96	2.11	
Total	216 (64.29 %)	173 (74.89 %)	389 (68.61 %)					

Table 4. Summary data by publication years

Annals of Library and Information Studies								IASLIC Bulletin						
Year	Vol. No.	No. of Titles	Title with (:)	Title with (,)	Title with (-)	Title with (?)	Title with [()]	Vol. No.	No. of Titles	Title with (:)	Title with (,)	Title with (-)	Title with (?)	Title with [()]
2011	58	36	16	3	8	0	3	56	23	13	1	2	1	1
2012	59	26	12	2	7	0	1	57	23	13	3	5	0	2
2013	60	35	15	8	7	0	3	58	18	14	1	8	0	2
2014	61	34	11	4	6	0	2	59	23	13	6	6	0	4
2015	62	37	14	3	4	0	3	60	18	10	4	1	0	0
2016	63	31	16	1	11	1	0	61	16	12	3	4	1	2
2017	64	28	14	2	7	0	2	62	22	16	7	7	0	1
2018	65	25	9	3	9	0	2	63	19	12	4	7	0	1
2019	66	17	9	1	2	1	0	64	23	16	7	5	0	3
2020	67	26	17	2	2	0	1	65	21	11	4	1	0	1
2021	68	41	17	5	13	1	1	66	25	15	2	5	1	1
	11	336	150	34	76	3	18	11	231	145	42	51	3	18

Table 5. Summary data by number of authors

Annals of Library and Information Studies						IASLIC Bulletin				
No of authors	Single author	2 Authors	3 Authors	4 Authors	4+ Authors	Single Author	2 Authors	3 Authors	4 Authors	4+ Authors
No of titles	111	163	49	8	5	79	124	27	1	0
Title with (:)	43 (38.74 %)	78 (47.85 %)	23 (46.94 %)	3 (37.5 %)	2 (40 %)	43 (54.43 %)	80 (64.51 %)	21 (77.77 %)	1 (100 %)	0
Title with (,)	11 (9.91 %)	19 (11.66 %)	2 (4.08 %)	1 (12.5 %)	0	9 (11.39 %)	28 (22.58 %)	2 (7.40 %)	0	0
Title with (-)	18 (16.22 %)	39 (23.93 %)	15 (30.61 %)	0	1 (20 %)	1 (15.18 %)	25 (20.16 %)	6 (22.22 %)	1 (100 %)	0
Title with (?)	2 (1.80 %)	1 (0.61 %)	0	0	0	2 (2.53 %)	0	1 (3.70 %)	0	0
Title with [()]	7 (6.31 %)	8 (4.91 %)	4 (8.16 %)	0	0	6 (7.59 %)	5 (4.03 %)	3 (11.11 %)	0	0

Table 3 shows the distribution of titles with Non-Alphanumeric Characters (NAC) by year. Between 2011 and 2021, non-alphanumeric characters were present in 216 (64.29 %) of the 336 contributions in ALIS and 173 (74.89 %) of the 231 titles in IB. ALIS and IB titles together contain 389 titles with non-alphanumeric characters. A total of 389 articles (68.61 %) with non-alphanumeric characters were published cumulatively in two source journals, with an average relative growth rate (RGR) of 1.59 %. Between 2011 and 2021, the relative growth rate varied from 0.75 to 2.11.

An overview of non-alpha numeric title statistics by publishing year is given in Table 4. Out of the 336 article titles in ALIS, 150(44.64 %) articles have a colon, 34(10.12 %) have a comma, 76(22.62 %) have a hyphen, 3(0.89 %) have a question mark, and 18(5.36 %) have parenthesis. Article titles in IB 145(62.77 %) have colons, commas in 42(18.18 %), hyphen in 51(22.08 %), question marks in 3(1.29 %), and parenthesis in 18(7.79 %) out of total 231 titles. Over the course of the study year, the alpha numeric character colon (:) is most frequently used in research paper titles published in both publications.

Table 5 shows the summary statistics of titles using non-alpha numeric characters broken down by the number of authors. In ALIS, out of 111 single authored contributions 43(38.74 %) titles have a colon; 11(9.91 %) have a comma; 18(16.22 %) have a hyphen; 2(1.80 %) have a question mark and 7(6.31 %) have parentheses. Further than among 163 double authored contributions 78(47.85 %) titles have a colon; 19(11.66 %) have a comma; 39(23.93 %) have a hyphen; 1(0.61 %) have a question mark and 8(4.91 %) have parentheses. Alike out of 49 triple authored contributions 23(46.94 %) titles have a colon; 2(4.08 %) have a comma; 15(30.61 %) have a hyphen; and 4(8.16 %) have parentheses.

Out of 8 four-authored contributions 3(37.5 %) titles have a colon and only 1(12.5 %) have a coma whereas out of 5 more than four authored contributions 2(40 %) titles have a colon and only 1(20 %) have a hyphen. Similarly among the 79 single authored contributions in IB, 43(54.43 %) titles have a colon; 9(11.39 %) have a comma; 1(15.18 %) have a hyphen; 2(2.53 %) have a question mark and 6(7.59 %) have parentheses. In addition, out of the 124 double authored contributions 80(64.51 %) titles have a colon; 28(22.58 %) have a comma; 25(20.16 %) have a hyphen; and 5(4.03 %) have parentheses. Similar to the 27 triple authored contributions, of which 21(77.77 %) titles have a colon; 2(7.40 %) have a comma; 6(22.22 %) have a hyphen; 1(3.70 %) have a question mark and 3(11.11 %) have parentheses. In a single four authored contributions 1(100 %) have a colon and a hyphen in the title. No article in IB was found to have more than four authors during the period of the study.

7. FINDINGS AND CONCLUSIONS

Two reputable Indian-originated library and information science journals-the IASLIC Bulletin (IB), published by

the Indian Association of Special Libraries & Information Centres (IASLIC), and the Annals of Library and Information Studies (ALIS), published by the National Institute of Science Communication and Resources (NISCAIR) are included in the current study. The findings may be summarised as:

- ALIS published 336 publications and IB published 231 articles over the study period, accounting for a total of 567 contributions.
- The average relative growth rate (RGR) for both groups was 1.63 %. Joint authorship is edominant in both the journals.
- The outcome shows that 389 titles-216 in ALIS and 173 in IB-of the total 567 contributions appeared with non-alphanumeric characters.
- Colon (:) is the most often used alpha numeric character; double authors routinely use it in ALIS (78.85 %) and IB (64.51 %).
- The study show that authors frequently use non-alphanumeric characters in the titles of their articles published in ALIS and IASLIC bulletins alike other subject field.
- Non-alphanumeric characters are used in titles by authors in the field of library and information science to improve their organisation, impact, and visual appeal.
- Readers would be able to understand the topic of the study just by reading the article title. The title makes the initial impression on potential readers, thus authors should pay attention to how the title is organised.
- The author benefits greatly from the inclusion of non-alphanumeric characters in the title because they not only help organise the title but also give impetus to the prestige of an article. This study was limited to only two LIS journals and further study may be conducted based on other prominent journals in the years to come.

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