

RECOGNITION AS A DISTINGUISHING CRITERION OF IS JOURNALS

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ABSTRACT

The number of journals publishing information systems (IS) research has grown dramatically over the past few decades. This has resulted in an environment where authors have a wider choice of journals in which to place articles. Electronic journals are now as readily recognised by authorities as print journals. This paper provides firm evidence in support of the assertion that the number of journals publishing IS research has increased. The paper also examines the Australian context where the selection of a journal in which to place an article is influenced by recognition from the Department of Education Science and Training (DEST). In Australia, obtaining DEST recognition as a recognised research journal is not an onerous task, and yet a significant number of IS journals have not done this. Publishing in a DEST recognised journal is essential for Australian researchers to contribute to their organisation's research quantum and hence research funding. Attention is drawn to an increasing number of IS journals not recognised by DEST, and consequent action is recommended.

Keywords: K.7.m [The Computing Profession]: miscellaneous; General Terms: Management, Documentation; Additional Key Words and Phrases: journals, publish, recognition

INTRODUCTION

This paper reports on research which was undertaken to explore two issues. Firstly, it presents a definitive study of the year of first publication of journals publishing IS research. This study was undertaken to provide clear evidence of the increasing number and rate of entry of IS journals, which is often referred to anecdotally within the IS community, but has not been published previously. Secondly, the issue of recognition of IS journals by authorities is examined within the Australian context. Both the requirements for and process of recognition are described and the extent of recognition of IS journals are examined. From this analysis recommendations for authors of journal papers and members of journal editorial boards are made.

This paper begins with a review of the use of journals and analysis of journals within the IS discipline. It then discusses the issue of recognition of journals by authorities and details the Australian context. Following that, an analysis is undertaken of the recognition of IS journals recorded in the Index of Information Systems Journals (Lamp 2004). Conclusions which may be drawn from this analysis are then presented.

JOURNALS AND THE IS DISCIPLINE

Readership surveys have shown that the amount of reading by academics of library holdings of journal publications is increasing. This increase is largely attributed to a decline in personal subscriptions and the increased accessibility of journal articles through online bibliographic searching and electronic journal collections. These factors are also believed to contribute to a broader range of journals being read (King et al 2003). Also contributing to the broader range of journals being read is the proliferation of electronic journals, which are gaining greater acceptance as an appropriate publication outlet for significant research and are now accepted in indexes such as ISI¹ and Ulrich's² as readily as an equivalent paper journal (Galvin 2004). This trend has been evident in the IS community and was commented on over a decade ago by Walstrom et al (1995). The precise impact of these changes is still a matter of ongoing discussion within the IS community, eg Peffers et al (2003a). A number of studies have been undertaken into the number and quality of journals publishing IS research. Table 1 presents data from several of these studies on the number of journals publishing IS research.

Study	Number of Journals Studied
Boyer & Carlson (1989).	110 (34 refereed)
Gillenson & Stutz (1991).	38
Walstrom et al (1995).	26 (based on previous studies)
Hardgrave & Walstrom (1997).	53 (based on 1991 study)
Walczak (1999).	23 (based on previous studies)
Whitman et al (1999).	80 (based on previous studies and peer discussions)
Mylonopoulos & Theoharakis (2001).	87 (based on previous studies)
Walstrom & Hardgrave (2001).	51 (based on 1997 study)
Bharati & Tarasewich (2002).	62 (journals publishing eCommerce)
Katerattanakul et al (2003a).	27 (in citation indexes)
Katerattanakul et al (2003b).	38 (in citation indexes)
Peffers et al (2003b).	326 (included magazines as well as journals)
Lamp (2004)	405 (at time of survey, Nov 2004)

Table 1: Previous information systems journal studies

The figures presented in Table 1 are difficult to compare, as the basis for the various studies varies widely – some focus on particular publication areas (eg Bharati & Tarasewich, 2002 on eCommerce), others look at particular aspects of journal use (eg Walczak, 1999 on relative use by specific research foci within information systems), some are population studies (eg Boyer & Carlson 1989, Mylonopoulos & Theoharakis 2001, Peffers et al 2003b) where others have used subsets based on a specific form of recognition (eg Katerattanakul et al, 2003a, Katerattanakul et al, 2003b using journals tracked in citation indices). Table 1 by no means lists all the research undertaken on the issue of the identification and relative ranking of information systems journals. A more comprehensive listing of ranking and analysis research can be found in the Index of Information Systems Journals (Lamp 2004).

To address the issue of the lack of any definitive analysis of publication history in the IS area, the data in the Index of Information Systems Journals was used to compile such an analysis. The primary purpose of the Index is to record journals which publish IS research, as a guide to authors

¹ <http://www.isinet.com/journals/>

² <http://ulrichsweb.com/UlrichsWeb/>

seeking publication outlets and, therefore, the scope of the Index includes all journals which publish IS research. The Index was used to discover, from the external links within it, the year of first publication of those journals. It was surprisingly difficult to establish the year of first publication of some journals. Only Elsevier and Idea Group explicitly recorded this, and even those publishers' websites did not record this for all publications. For the remaining cases Ulrich's Periodicals Directory was consulted. The year of first publication was established for 387 journals. This approach was not able to establish the year of first publication for 14 journals, of which 6 were no longer in publication. It should also be noted that some broadly focused journals, such as the Harvard Business Review, which commenced publication in 1922, were not necessarily publishing IS research over their entire history. Examining individual journal issues to determine the first publication of IS research was beyond the scope of this study but may be undertaken in further research. There is therefore a small unavoidable over statement of available journals. Three journals commenced publication between 1922 and 1949 and the balance are presented in Figure 1, which highlights the growth in the number of IS journals over recent decades.

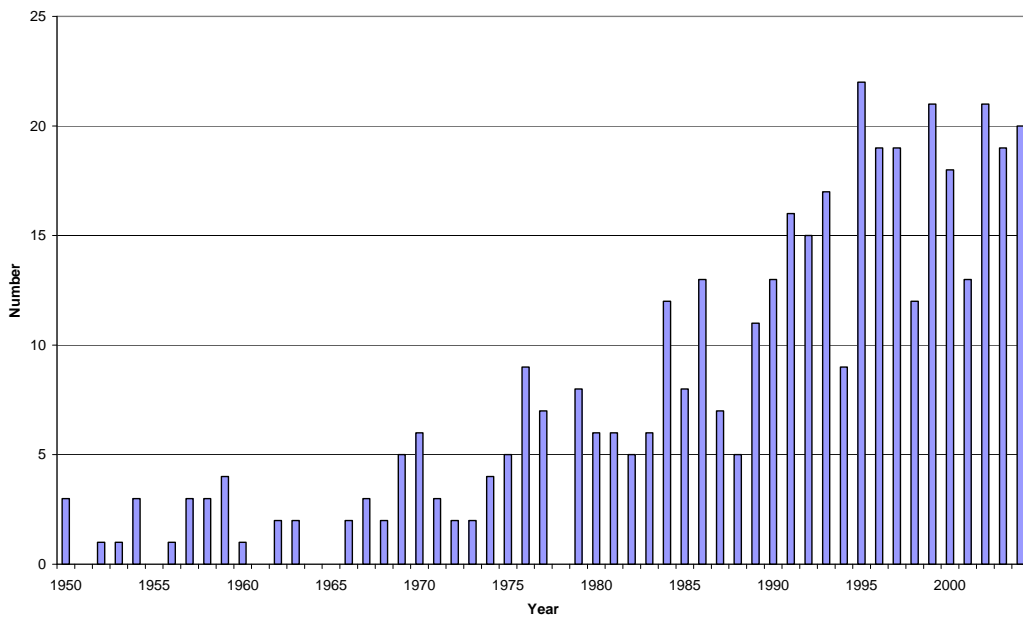


Figure 1: Journals publishing IS research by year of first publication 1950-2004

RECOGNITION OF JOURNALS

Researchers are strongly encouraged by their affiliated institutions to publish research in highly regarded or prestigious journals. As well as the surveys mentioned above, individual institutions may publish their own lists of journals that they consider should be targeted by researchers (eg GSU 1996). In some institutions the success or failure of an individual academic may be measured by their publication record with these targeted journals. Such a simplistic approach is not universally endorsed, and one major survey of quality indicators, the Journal Quality List, specifically states:

The Journal Quality List is a collation of journal rankings from a variety of sources. It is published primarily to assist academics to target papers at journals of an appropriate

standard. We would be concerned if the list were used for staff evaluation purposes in a mechanistic way. (Harzing, 2004)

In addition to evaluations by academics as a focus of, or incidental to their research, some governments, including the Australian government, specify which journals they consider to be significant outlets. In the case of the Australian government, publication in such specified journals is used as one measure of research output. This measure, along with others, is then used to calculate a research quantum which is used to rank researchers and institutions and impacts on the allocation of research funds. Future funding, therefore, as well as prestige and promotion, becomes a motivator in selecting a journal for publication.

JOURNAL RECOGNITION IN AUSTRALIA

The Australian government journal recognition arrangements are administered by the Department of Education Science and Training (DEST). At this point it should be noted that it is possible for Australian researchers to seek DEST recognition of an individual article, by submission of evidence to establish that the article had undergone a process of peer review (see Appendix 2) The focus of this paper is on journal, rather than article, recognition.

The requirements for journal recognition are contained in the Specifications for the Collection of 2004 Data (DEST 2005). Given the volatility of material on websites, the definition of journal articles is reproduced at Appendix 1 to this article and the definition of peer review is at Appendix 2.

According to those sections of the Specifications, for a journal article to meet the DEST criteria it must:

- meet the definition of research,
- be published in a scholarly journal,
- have been peer-reviewed,
- have an International Standard Serial Number (ISSN)

DEST uses the OECD definition of research, which it cites as:

Creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications.

Any activity classified as research is characterised by originality; it should have investigation as a primary objective and should have the potential to produce results that are sufficiently general for humanity's stock of knowledge (theoretical and/or practical) to be recognisably increased. Most higher education research work would qualify as research.

Pure basic research, strategic basic research, applied research and experimental development. (DEST 2005).

The term "scholarly journal" is not defined in the Specifications. However, in the section on "peer review" (see Appendix 2), there is a set of criteria that define whether or not a journal can be considered to be peer reviewed. In addition to tests that may be applied to individual articles, the journals which fall into the following categories are deemed to be peer reviewed:

- the journal is listed in one of the Institute for Scientific Information indexes (www.isinet.com/journals)

the journal is classified as 'refereed' in Ulrich's International Periodicals Directory (Volume 5 - Refereed Serials) or via Ulrich's web site www.ulrichsweb.com
the journal is included in the department's Register of Refereed Journals (DEST 2005).

From these various criteria, it can be seen that, regardless of the content or reviewing process of an individual article, to contribute to their research quantum Australian researchers should seek journals which:

- have an ISSN and
- are listed in:
 - one of the ISI indexes, or
 - Ulrich's as refereed, or
 - the DEST Register of Refereed Journals.

Obtaining an ISSN is done by application to the ISSN National Centre in the country in which the particular publication is published, or where no such Centre exists, an ISSN can be obtained through the International Centre in Paris (ISSN 2005). In Australia the National Library of Australia administers ISSNs and no charge is made for issuing an ISSN (NLA 2005).

Journal listing with Ulrich's and DEST is by application to those organisations and in both cases no charge is made. Listing with ISI is subject to different criteria, as ISI aims "to provide comprehensive coverage of the world's most important and influential research" (Thomson ISI 2004). In order to undertake this they are guided by what they term Bradford's Law which stated that the core literature for any given scientific discipline was composed of fewer than 1,000 journals. Of this 1,000 journals, there are relatively few with a very strong relevance to the given topic, whereas there are many with a weaker relevance to it. Those with a weak relevance to the given discipline or topic, however, typically have a strong relevance to another discipline. Thus, the core scientific literature can form itself around various topics, with individual journals becoming more or less relevant depending on the topic. (Thomson ISI 2004)

Hence ISI confine themselves to tracking approximately 8,700 journals from all fields which they believe accounts for 85% of published research and 95% of cited publications. They recognise that this core is not static and their editorial team focuses on evaluating journals on an ongoing basis to determine their eligibility for membership of this core. While they may evaluate around 2,000 new journals per year, only 10-12% become members of the core, and although it is not explicitly stated in their document, it can be assumed that there is an ongoing rate of exit from their core. Publishers may submit journals for evaluation, but inclusion is subject to evaluation by the editorial team.

JOURNALS PUBLISHING IS RESEARCH

At the time of this survey (November 2004) there were 405 journals listed in the Index. In addition to determining the year of first publication, the journals were filtered through the requirements for recognition. The result of this analysis is summarised below:

405	journals on Index
- 4	never intended to have refereed status
<hr/>	
401	which could potentially be recognised
- 315	actually recognised by authorities
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86	not recognised
- 8	with no ISSN
<hr/>	
77	with ISSN
- 26	with no clear statement on refereeing of papers
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51	with no obvious impediment to recognition

It should be noted that four publication outlets recorded in the Index namely, MISQ Discovery, the Computing Research Repository, InterStat, and the ISWORLD Working Papers Series, while significant, are not and were never intended to be refereed publications. Of the remaining 401 journals, 315 met the DEST criteria (Table 3), while 86, over 20%, did not.

On DEST Register	36
In ISI index	161
Refereed according to Ulrich's	288

Table 2: Number of IS Journals recognised by authorities³

Of the 86 journals which did not meet the DEST criteria, the following eight journals had no ISSN:

Applied Computing Review
Foundations of Information Systems: Toward a Philosophy of Information Technology
International Journal of Digital Evidence
Journal of Behavioural and Applied Management
IT & Society: An Online Journal
Journal of Online Law
IDEA: The Journal of Law and Technology
International Journal of Information Technology Education

Twenty-six of the unrecognised journals did not have clear statements on their websites indicating that double blind refereeing was undertaken by the journal. Eleven of those twenty-six have print editions and information on refereeing may be contained in those editions. Fifty-one journals would appear to meet the minimum requirements for recognition by DEST. Seven of those journals were also ranked highly in the Peffers et al (2003b) study:

Communications of the Association for Information Systems
DATA BASE for Advances in Information Systems
Electronic Markets
International Journal of Accounting Information Systems

³ An individual journal can be recognised by more than one of the three bodies.

Thirty-eight of the fifty-one unrecognised refereed journals appeared to be independent publications, however several major IS publishers were represented, including Taylor and Francis, Springer, ACM, Idea Group and Inderscience. Further more, thirty-three of the fifty-one unrecognised publications were electronic only.

A graph of the cumulative numbers of IS journals by first year of publication appears in Figure 2. Recognised journals are distinguished from the total number of journals. There is a steadily widening gap developing between the total number of journals and the number of recognised journals.

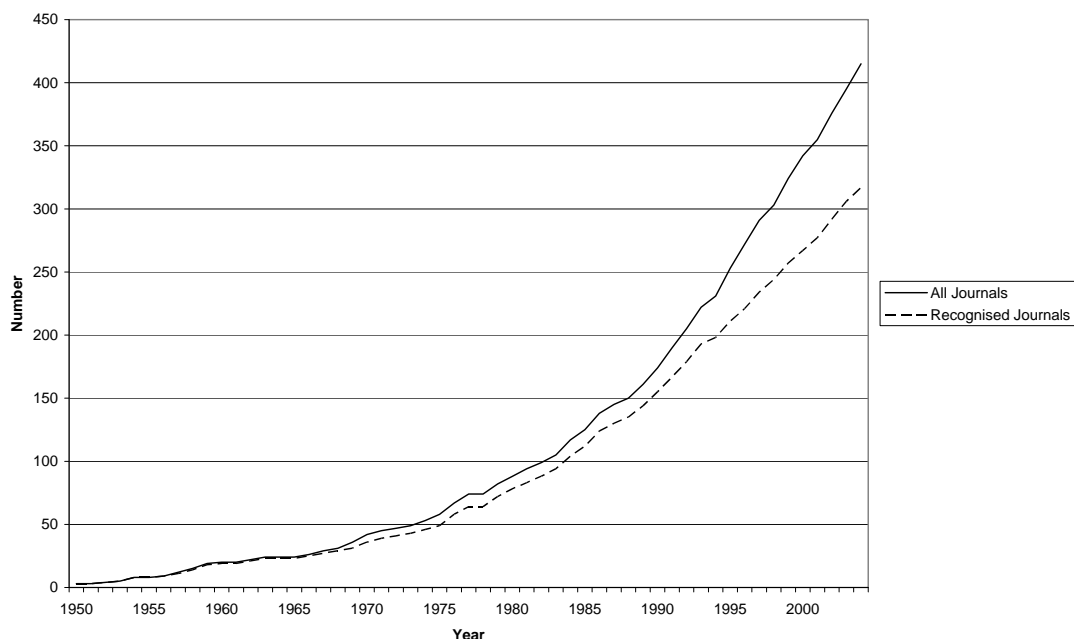


Figure 2: Number of journals publishing IS research by year of first publication 1950-2004 (cumulative)

CONCLUSIONS

This research has empirically documented that the number of new journals publishing information systems research has grown from less than five titles per year twenty years ago to over twenty titles per year currently. Also shown is the growing number of titles, fifty-one at the time of surveying, which are not recognised by Ulrich's, ISI or the Australian government schemes, despite the apparent lack of any real impediment to their doing so. Extremely surprising was the fact that seven journals which are very highly regarded in the IS community are not recognised by DEST.

Unrecognised journals limit the number of publication outlets for Australian authors and for authors in other countries which may have a similar journal evaluation or recognition scheme where funding or promotion is dependent upon publishing in recognised journals. In an environment of increasing

choice of publication outlets, recognition is a criterion which will be used to choose a journal in which to publish.

It has been shown that the requirements for obtaining recognition are not onerous, either in the work required, or cost, and that 51 unrecognised journals could become recognised by the submission of a single form.

I strongly suggest that this is an issue that Australian information systems journal editorial board members should ensure is attended to during their tenure and as part of their activities as an editorial board member. There would be direct benefits to the journal by increasing their value to authors. There would also be direct benefits to Australian authors by increasing the number of publications which contribute to their research quantum. Failure to act on this issue will also be to the detriment of the IS discipline generally.

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Appendix One: Australian Government Definition of Journal Articles

11.9.3. Journal Articles

To be included in this category the journal article must meet the definition of research (see 2.4) as amplified in the key characteristics of research publications (see section 11) and:

- must be published in a scholarly journal
 - must have been peer-reviewed as defined at 11.6 (note that the fact that an article has been peer reviewed does not automatically mean that it is eligible. The article must still meet the definition of research as well as all other criteria)
 - must have an International Standard Serial Number (ISSN).
 - Some journals may be regularly published as separate volumes with an ISBN rather than an ISSN. Provided that the publication is clearly identified as an edition of a journal, and not a book, articles in such publications may be eligible if they meet all other criteria.
 - If an ISSN does not appear in the journal, external evidence such as an ISSN number being cited in an extract from Ulrich's or ISI is sufficient to demonstrate the existence of the number
- the author must be affiliated with the claiming HEP.

The types of journal articles that may meet the criteria include:

- commentaries and communications of original research
- research notes
- letters to Nature
- critical scholarly texts which appear in article form
- articles reviewing multiple works or an entire field of research
- invited papers in journals
- articles in journals which are targeted to both scholars and professionals
- articles in a stand alone series.

The types of journal articles that are unlikely to meet the criteria include:

letters to the editor
case studies
articles designed to inform practitioners on existing knowledge in a professional field
articles in newspapers and popular magazines
editorials
book reviews
brief commentaries and communications of original research
reviews of art exhibitions, concerts, theatre productions.

Appendix Two: Australian Government Definition of Peer Review

11.6. Peer Review

For the purposes of the HERDC, an acceptable peer review process is one that involves an independent, expert review.

The peer review process must involve assessment of the publication:

In its entirety – not merely an abstract or extract

Before publication

By appropriately independent, qualified experts. Independent in this context means independent of the author.

For journal articles, any of the following are acceptable as evidence:

The journal is listed in one of the Institute for Scientific Information indexes (www.isinet.com/journals)

The journal is classified as 'refereed' in Ulrich's International Periodicals Directory (Volume 5 - Refereed Serials) or via Ulrich's web site www.ulrichsweb.com

The journal is included in the department's Register of Refereed Journals (see 11.10)

There is a statement in the journal which shows that contributions are peer reviewed

There is a statement or acknowledgement from the journal editor which shows that contributions are peer reviewed

A copy of a reviewer's assessment relating to the article.

Note:

A statement from an author that a publication was peer reviewed will not be accepted.

The existence of a national or international advisory board is not sufficient evidence that all relevant publications are assessed by members of it.