A Citation Analysis of the AUIC 2006 – 2008 Proceedings, with Reference to the CORE Conference and Journal Rankings

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Abstract

This paper compares the CORE rankings of computing conferences and journals to the frequency of citation of those journals and conferences in the Australasian User Interface Conference (AUIC) 2006, 2007 and 2008 proceedings. The assumption underlying this study is that there should be a positive relationship between citation rates and the CORE rankings. Our analysis shows that CORE conference and journal rankings broadly reflect the AUIC citations, but we note some anomalies. While these anomalies might be minor in the larger scheme of things, any anomalies need to be addressed, as the careers of individual academics may depend upon it. The concept of conference and journal rankings is probably here to stay, and this paper ends with some suggestions on how the rankings process should now evolve, so that it becomes more transparent.

Keywords: Citation Analysis, Excellence in Research for Australia (ERA), conference rankings, journal rankings.

1 Introduction

For several years, the Australian federal government has been developing a process for reviewing the quality and impact of publicly funded Australian research. The review was originally known as the Research Quality Framework, or simply RQF (DEST, 2007), but with a change of government some aspects of the review process changed, and the review process is now known as Excellence in Research for Australia, or simple ERA (ARC, 2008). As part of the RQF/ERA, the Computing Research and Education Association of Australasia (CORE) has developed a ranking scheme for computing-related conferences and journals (CORE, 2007).

Developing such a set of rankings is by no means straightforward. Most ranking systems include citations as a prominent factor. While there are indexes that record the number of citations for individual papers and for journals, only a small percentage of all computing papers are thus indexed. Since there was not an existing robust method for ranking conferences and journals, CORE formed committees that developed their own processes for ranking conferences and journals.

This paper evaluates the CORE rankings from the perspective of the Australasian user interface research community. Specifically, the paper poses the following research question: *do the conferences and journals cited most frequently in the three most recent AUIC proceedings figure prominently in the CORE rankings*? More specifically, if a conference or journal is:

1) Ranked high by CORE and receives a high number of citations in the three AUIC proceedings, then the ranking and the citation rate are consistent.
2) Ranked low by CORE and receives a low number of citations in the three AUIC proceedings, then the ranking and the citation rate are consistent.
3) Ranked high by CORE but receives a low number of citations in the three AUIC proceedings, then the interpretation of that data depends upon other factors:
   a) Such a highly ranked conference/journal may not be highly relevant to user interface research (e.g. the International Conference on Principles & Practice of Constraint Programming, which is ranked as an A conference), so it would not be surprising that its citation rate within AUIC proceedings is low.
   b) The conference/journal may be very new, and there simply hasn't been the opportunity for many papers from it to be cited yet.
   c) Otherwise, we would regard its high ranking as being inconsistent with its low AUIC citation rate.
4) Ranked low by CORE but receives a high number of citations in the three AUIC proceedings, then we would regard its low ranking as being inconsistent with its AUIC citation rate.

Note that "inconsistent" does not mean "incorrect". There may be other factors that make the CORE ranking appropriate. Inconsistency merely indicates that further attention is warranted.

The AUIC 2006, 2007 and 2008 conferences contain 26, 14 and 12 papers respectively, for a total of 52 papers. To answer the above research question, all 884 citations in those 52 papers were examined, to see what conferences and journals were most frequently cited. Of the 884 citations, 195 (22%) were to journal papers and 428 (48%) were to conference papers. Table 1 shows a complete breakdown of the different types of citations in those AUIC proceedings. (All tables appear at the end of the paper.)

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2 Conference Citations and CORE Rankings

2.1 The CORE Conference Ranking System

The CORE website describes the broad structure and chronology of the conference rankings process (CORE, 2007b; CORE, 2007d). It began in late 2005. In the first few months, the Australian National University's Research Evaluation and Policy Project (REPP), using bibliometric analyses, created a master list of conferences. In March 2006, that master list was presented for discussion at a workshop of approximately 20 ICT researchers from a number of universities. After refinement of the list, it was released for consultation and feedback from the ICT community. In late 2006, a project reference group (of unspecified size and composition) produced the first draft of the conference ranking list. During 2007, consultation with the ICT community continued, and some changes were made to the list. At the time this paper was written, the most recent draft of the conference rankings was released in December 2007.

The CORE conference rankings are based upon four tiers, enumerated as A+, A, B, L and C (CORE, 2007c). There are two indications on the CORE website as to the significance of the various tiers. These two indicators are described in the following two subsections.

2.1.1 CORE Description of the Tiers

The following description of the conference tiers is taken verbatim from the CORE web site:

Tier A+: Typically a Tier A+ conference would be one of the very best in its field or subfield in which to publish and would typically cover the entire field/subfield. These are conferences where most of the work is important (it will really shape the field), where researchers boast about being accepted, and where attendees would gain value from attending even if they didn't have a paper themselves. Acceptance rates would typically be low and the program committee would be dominated by field leaders, including many from top institutions. Tier A+ conferences would be highly represented in the CV of a junior academic (assistant professor) aiming for tenure at a top 10 US university. These are the conferences where people from overseas congratulate you on getting in and you shout drinks to the research group.

Tier A: Publishing in a Tier A conference would add to the author's respect, showing they have real engagement with the global research community and that they have something to say about problems of some significance. Attending a Tier A conference would be worth travelling to if a paper was accepted. Typical signs of a Tier A conference are lowish acceptance rates and a program committee and speaker list which includes a reasonable fraction of well known researchers from top institutions (as well as a substantial number from weaker institutions), and a real effort by the program committee to look at the significance of the work.

Tier B: Tier B covers conferences where one has some confidence that research was done, so publishing there is evidence of research-active status (that is, there is some research contribution claimed, and a program committee that takes its job seriously enough to remove anything ridiculous or ignorant of the state of art), but it's not particularly significant. This is where PhD students might be expected to send early work; it also includes places whose main function is the social cohesion of a community. Typical examples would be regional conferences or international conferences with high acceptance rates, and those with program committees that have very few leading researchers from top international institutions.

Tier L: These are local conferences which may be important for the social cohesion of the local community and for networking. Many were "one off" but are included for historical reasons.

Tier C: All the rest.

2.1.2 DEST Publication Rates

The second indication on the CORE web site as to the significance of the various tiers is data from the Australian Government's Department of Education, Employment and Workplace Relations (DEWR) indicating approximate publication rates of Australian authors in each of the CORE ranks:

```
A+        6%
A        27%
B        31%
U (sic)  29%  (meant to be C?)
C (sic)   6%  (meant to be L?)
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The RQF/ERA processes have changed rapidly over the years of this project, and the information on the CORE web site has not always kept pace with those changes. While the CORE web site information above describes tiers "U" and "C", we suspect that those designations should be updated to "C" and "L" respectively.

2.2 AUIC Conference Citations—Results

In the 52 papers of the three AUIC proceedings surveyed, authors cited papers from 137 different conferences. Table 2 shows the number of citations to conferences within the four CORE tiers, and also to conferences not listed by CORE. The final row of Table 2 shows the DEST estimate of the publication rates of Australian authors in each of the conference ranks, which shows—as one would expect—that the rate at which AUIC authors cite A and A+ conferences exceeds the frequency with which Australians publish in A and A+ conferences.

A striking feature of Table 2 is that one half of the conferences cited by AUIC authors are not listed by CORE. However, it would be unreasonable to expect CORE to rank all those conferences, for at least two reasons: (1) for the purposes of the RQF/ERA, CORE was only asked to rank conferences and journals in which Australian-based academics had reported having recently published, and (2) as shown in Table 3, of the 137 different conferences cited, 85 of those conferences (62%) were cited in only one paper in the AUIC 2006–08 proceedings.

Table 2a is a comparison of the data from Table 2 for AUIC with similar data from three other conferences that are part of the Australasian Computer Science Week. For details of the analysis of those other three conferences, see the analogous papers appearing in those respective conference proceedings (Lister & Box, 2008, 2009a, and 2009b.) Table 2a shows that the AUIC distribution of

citations among tiers A to C is broadly consistent (given the sample sizes) with the same distribution in the Australasian Computer Science Conference (ACSC) and the Australasian Database Conference (ADC).

Some conferences cited more than once were cited in only one paper. Also, the citation rate for a particular conference can be distorted by self-citation. Table 4 allows for these distortions, by (1) counting not the actual citations, but the number of different papers that cite a particular conference, and also by (2) excluding self-citations. Of the 124 conferences that received citations other than self-citations, almost three quarters of those conferences (73.4%) were cited in only one paper and just over 90% of conferences were cited in three or less papers (i.e. an average of one paper or less per year for each of the three years of AUIC proceedings examined).

Table 5 lists the top 16 conferences, which are all cited in three or more papers, excluding self-citations. The columns show the CORE tier (column "Tier"), total number of citations to the conference (column "Cites"), total number of citations to the conference, excluding self-citations (column "CitesXSelf"), total number of papers that cited that conference (column "Papers"), and total number of papers that cited that conference, excluding self-citations (column "PapersXSelf"). The list is ordered on the last column (descending), then by tier, then by conference name. Of the 16 conferences listed in Table 5, one third (31%) are ranked as A+ by CORE, and almost two thirds (63%) are ranked as either A+ or A.

Figure 1 is a log-log plot (to base e) of PapersXSelf versus the rank of the 16 conferences from Table 5 (i.e. ranked on PapersXSelf). This graph suggests that the distribution of the number of papers citing a particular conference is broadly consistent with the well known power law distribution for citations (Redner, 1998; Tsallis & de Albuquerque, 2000). Such power law distributions are often referred to as Zipf's Law. The slope of the line of best fit is -0.9. However, this plot is merely suggestive of a power law distribution, and not definitive, as the amount of data we have collected in this study is relatively low by the standards of citation analysis.

3 Discussion of Conference Rankings

Given the above results, we conclude that—in general, with some caveats to follow—the citations to various conferences in the AUIC 2006–08 proceedings are consistent with the CORE conference rankings.

AUIC is equal fifth in Table 5, despite AUIC being ranked as a "B" conference. However, it is not surprising—indeed, it is to be expected—that the papers in the AUIC proceedings of one year would cite a reasonable number of AUIC papers from earlier years.

Authors of papers published in the *International Conference on Human-Computer Interaction* might have some grounds for feeling aggrieved, as it is the only conference in Table 5 that is ranked "C" by CORE. By criteria 4 given in the introduction, the CORE ranking of this conference is inconsistent with our AUIC citation data. However, CORE rankings are not based solely on citation data (from any source, let alone our analysis of only three AUIC proceedings), and other factors may have reasonably led to the lower ranking of this conference. However, an author of a conference paper should at least be able to establish CORE's reasons for ranking that conference so low, and currently CORE does not publish its reasons for the specific ranking of any conference (or journal).

Four conferences in Table 5 are not ranked by CORE. This may be because an Australian has not published in these conferences, but without published confirmation from CORE that remains speculation.

Over a third (38%, see Table 2) of AUIC citations to CORE ranked conferences are to conferences ranked B, L or C. That statistic challenges the premise of RQF/ERA conference rankings process—that the rank of a conference is a reliable proxy for the quality of all papers in that conference. Our citation data shows that AUIC authors read widely, and choose to cite a paper on its own merits, not just on the reputation of the conference in which the paper appears.

The percentage of unranked conferences cited in AUIC (50%) is higher than the same figure for ACSC and ADC (42% and 30% respectively, see Table 2a), but similar to the 55% of unranked conferences cited in the Australasian Computing Education Conference (ACE). This high percentage of unlisted conferences for AUIC and ACE may be due to both conferences being more human-centred than ACSC and ADC, which might lead to AUIC and ACE authors citing more papers from social science conferences, and those conferences are ranked by committees from other disciplines.

4 Journal Citations and CORE Rankings

4.1 The CORE Journal Ranking System

There are four tiers in the ERA journal ranking system—A*, A, B and C. The Australian Federal Government's Australian Research Council (ARC, 2008) has indicated that, within each research discipline, the proportion of journals within each tier should be approximately:

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A* - top 5%
A  - next 15%
B  - next 30%
C  - bottom 50%
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Of the 834 journals ranked by CORE, as at June 2008, the percentages in each of the tiers is:

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A* -  6% ( 47 journals)
A  - 18% (147 journals)
B  - 28% (233 journals)
C  - 49% (407 journals)
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The CORE web site contains a "journal update template" which gives an indication of the type of information used by CORE to determine the ranking of a journal:

- The number of referees for each paper submitted to the journal.
- Whether the review process is blind, double blind, open, or performed by the editor.
- The acceptance rate.
- The composition of the editorial committee (e.g. the proportion that are leading researchers in the field, and whether they are from the premier institutions for the field).

- The quality of the papers presented (e.g. whether the work presented shapes the field, and whether the quality of papers is uniform or 'patchy').
- Whether the top researchers in the field publish in that journal.
- The citation rate for papers in that journal.

4.2 AUIC Journal Citations—Results

In the three AUIC proceedings surveyed, authors cited papers from 110 different journals. Table 6 shows the number of citations to journals within the four CORE tiers, and also to journals not listed by CORE. The final row of Table 6 shows the distribution across the tiers of all 834 journals ranked by CORE, which shows—as one would expect—that there is a bias among AUIC authors toward citing the more highly ranked journals.

As with the analogous data for conferences, an immediately striking feature of Table 6 is that 61% of the journals cited in recent AUIC papers are not ranked by CORE. However, as was the case with conferences, it would be unreasonable to expect CORE to rank all those journals, for at least two reasons: (1) for the purposes of the RQF/ERA, CORE was only asked to rank journals in which Australian-based academics had reported having recently published; and (2) as shown in Table 7, just under two thirds (65%) of journals cited in the three AUIC proceedings were cited only once. Also, among the journals cited in AUIC papers are some that—while the citation may be germane to the paper in which the citation is made—one would not realistically expect the journal to be ranked by the CORE committee (e.g. American Journal of Geriatric Psychiatry).

Table 6a is a comparison of the data from Table 6 for AUIC with similar data from three other conferences that are part of the Australasian Computer Science Week (Lister & Box, 2008; 2009a; 2009b).

Some journals cited more than once were cited in only one paper. Also, the citation rate for a particular journal can be distorted by self-citation. Table 8 allows for these distortions, by (1) counting not the actual citations, but the number of different papers that cite a particular journal, and also by (2) excluding self-citations. Just over three quarters (77%) of journals cited were cited in only one paper (excluding self citations) and 94% of the journals were cited in three or fewer papers (i.e. 94% of journals were cited, on average, in one or fewer papers per year over the three years of AUIC proceedings analysed).

Table 9 lists the 12 journals cited by three or more papers, excluding self-citations. The columns show the CORE tier (column "Tier"), total number of citations to the journal (column "Cites"), total number of citations to the journal, excluding self-citations (column "CitesXSelf"), total number of papers that cited that journal (column "Papers"), and total number of papers that cited that journal, excluding self-citations (column "PapersXSelf"). The list is ordered on the last column (descending), then by tier, then by journal name. Of the 12 journals listed in Table 9, 5 (42%) are ranked as A* by CORE, and 7 (58%) are ranked as either A* or A.

Figure 2 is a log-log plot (to base e) of PapersXSelf versus the rank of the 12 journals from Table 9 (i.e. ranked on PapersXSelf). This graph suggests that the distribution of the number of papers citing a particular journal is broadly consistent with a power law distribution, as was also the case for conferences. The slope of the line of best fit is -0.4. However, this plot is merely suggestive of a power law distribution, with the 12 journals providing even fewer data points than the same graph for the conference data.

5 Discussion of Journal Rankings

Given the above results, we conclude that—in general, with some caveats to follow—the citations to various journals in the AUIC 2006–08 proceedings are in general consistent with the CORE journal rankings.

The *Communications of the ACM* (CACM) appears at the top of Table 9, which seems inconsistent with CORE's ranking of it as a "B" journal. The ranking of CACM generated much discussion within CORE. In early drafts of the rankings, CACM was deliberately not ranked at all, since many within CORE argued that CACM is a magazine, not a research journal (personal communication with CORE). In the analogous citation analysis of three other ACSW conferences—ACSC, ADC and ACE—CACM ranked first, second and third respectively (Lister & Box, 2008, 2009a, and 2009b). Polites and Watson (2008) used a more elaborate citation analysis technique than the simple approach we have used in this paper, and they found CACM to be a highly influential publication within Information Systems research—even more influential than MIS Quarterly. On this citation data in isolation, CACM's "B" ranking is hard to justify.

While *IEEE Computer Graphics and Applications* appears in Table 9, it is not a journal dedicated to aspects of user interfaces. When its place in the pantheon of computer graphics journals is considered, its "B" ranking may be appropriate—but it is beyond the scope of the data presented in this paper to make an assessment of that journal.

The last three journals in Table 9 have not been ranked by CORE, and correctly so, as that is a matter for committees in other disciplines.

Almost two thirds of citations to ranked journals (63%, see Table 6) in the three AUIC proceedings are to journals ranked B or C. As was also the case with the analogous conference statistic, this 63% statistic challenges the premise of RQF/ERA rankings process—that the rank of a journal is a reliable proxy for the quality of all papers in that journal. Our citations data shows that AUIC authors read widely, and choose to cite a paper on its own merits, not just on the reputation of the journal in which the paper appears.

Table 6a shows that the 14% cumulative percentage of AUIC citations in Tiers A* and A is markedly lower than the 29% of the Australasian Computer Science Conference (ACSC) and the 38% of the Australasian Database Conference (ADC), but slightly higher than the 9% of the Australasian Computing Education Conference (ACE). The percentage of unranked journals cited in AUIC (61%) is only slightly higher than the percentage for ACSC (58%), but both of those figures are markedly higher than the 33% of ADC. However, the 61% figure for AUIC is markedly lower than the 85% of unranked

journals cited in the Australasian Computing Education Conference (ACE).

6 Age of Citations

The ERA specifies an audit period of six years. An examination of the age of citations in the AUIC 2006–2008 proceedings shows that the bulk of the citations are older than six years. Only 25% of all AUIC conference citations, and 25% of all AUIC journal citations, were published during or after the year 2000. In contrast, the analogous percentages for ACSC are much higher (69% and 50% respectively), as are also the analogous percentages for ADC (70% and 55% respectively). Half of all AUIC conference citations, and half of all AUIC journal citations, are to papers that appeared in 1992 or earlier. It is therefore possible that AUIC authors might be disadvantaged by the choice of the six year audit period, compared to ACSC and ADC authors.

7 Discussion: Scholarship and Discourse

The schedule for developing the CORE rankings has been driven largely by the federal government's timetable for the RQF/ERA, which was faster than many in academia would have liked. Under such unfavourable circumstances, it was unavoidable that the ranking would be a relatively opaque committee/executive process.

While the rankings themselves may change, the concept of conference and journal rankings is here to stay. Furthermore, this ranking scheme will be used for purposes beyond the federal government's ERA exercise. For example, the rankings will become a routine part of applications for promotion in Australian universities.

It is now appropriate to consider the long-term strategy for the rankings. It is not in the best long-term interests of scholarship that the ranking remains an opaque committee/executive process. Scholarship would be better served by a more transparent process that allows for the ranking process itself to be improved, via open scholarly debate. As a first move toward developing such a scholarly process for routinely revising the rankings, we suggest a three-step process, described below.

7.1 All Policy and Data Should be Public

CORE has not yet documented its criteria for the journal rankings. Also, while there is a description of the conference rankings process on the CORE web site, it is not detailed. CORE should further document the criteria for journal and conference rankings.

The data for each conference and each journal (e.g. acceptance rates) should be made public, so that the computing community can check that the data is correct. Currently, given the high number of conferences and journals that have been ranked, and the short time in which the rankings were done, it is likely that a small number of journals and conferences have been ranked inappropriately because of bad data.

By using Web 2 technologies, CORE could make its ranking data public, and also push much of the effort for data acquisition and data cleaning onto the computing academic community.

7.2 Formal Models

A formal model—perhaps a points system—should be adopted for assigning preliminary rankings to conferences and journals. Such a model would make the ranking process far more transparent.

A formal model would offer a mechanism for providing a preliminary ranking for new conferences and journals. Currently, the conferences and journals that have been ranked are conferences and journals in which Australian-based academics have published in recent years. In the absence of a formal model, and irrespective of what the federal government and CORE may have intended, it is likely that unranked conferences and journals will be regarded as inferior; or at best dubious. The first Australian academic to publish in an unranked journal will have difficulty in establishing the quality of that journal to a promotions board, and the first Australian academic who has a paper accepted by an unranked conference will have difficulty in making a case to his/her department head for travel funding. The absence of a formal model will stifle Australian academics working in emerging research areas of computing.

7.3 A Documented Manual Review

Formal models will not capture the complexities of ranking. It is therefore appropriate that CORE continue to appoint committees that review the outputs of a formal model. When such a committee elects to manually alter the ranking from that assigned by the formal model, the reasons for doing so should be made public.

8 Conclusion

From our analysis of the CORE conference rankings, we conclude that the existing rankings are broadly consistent with the frequency of citation to conferences and journals in the three most recent AUIC conferences. Our analysis shows that CORE conference and journal rankings broadly reflect the AUIC citations, but we have noted some anomalies. It is important that anomalies be resolved, as the careers of individual academics may depend upon it.

Apart from the traditional intellectual skills associated with each academic discipline, all successful academics have found it necessary to acquire other skills – project management and grant writing, to name just two of those skills. The RQF/ERA government initiatives have added a new required skill for the successful Australian academic—the ability to understand issues in bibliometrics well enough to participate in the discourse on conference and journal rankings, particularly with regard to the ranking of their preferred conferences and journals. If we do not master bibliometrics to that degree, then bibliometrics will master us.

The process of ranking conferences and journals is as complex as it is vexing. This aim of this paper is merely to begin a scholarly discourse within the AUIC community on the CORE rankings. This paper is certainly not intended as the final word. Meanwhile, careers will rise and fall on the decisions made by the CORE ranking committees. It is therefore vital that the CORE ranking processes be open to informed discussion and peer review—why should we settle for a ranking

process that is less rigorous in its scholarship than what we demand from the research published in a highly ranked conference or journal?

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Types of Citation	AUIC2006		AUIC2007		AUIC2008		Total	
	No. Citations	%age Citations	No. Citations	%age Citations	No. Citations	%age Citations	No. Citations	%age Citations
Journal	69	18%	72	27%	54	23%	195	22%
Conference	193	50%	115	43%	120	51%	428	48%
Book or Chapter	53	14%	43	16%	36	15%	132	15%
Web Page	38	10%	22	8%	4	2%	64	7%
Unpublished Report	18	5%	5	2%	12	5%	35	4%
Unpublished Thesis	8	2%	4	1%	4	2%	16	2%
Other	3	1%	6	2%	5	2%	14	2%
Total	382		267		235		884	

Table 1: Number of different types of citation in the AUIC2006, AUIC2007 and AUIC2008 proceedings.

	Tier					
	A+	**A**	**B**	**L(ocal)**	**C**	**Not Listed**
Number of conferences cited in AUIC	16	26	19	1	6	69
Percentage of conferences cited in AUIC	12%	19%	14%	1%	4%	50%
Percentage of listed conferences cited in AUIC	24%	38%	28%	1%	9%	–
DEST publication rates of Australian authors in each of the CORE ranks	6%	27%	31%	6%	29%	

Table 2: Number of citations in the AUIC proceedings to conferences in each CORE tier, and to conferences not listed by CORE.

	Tier					
	A+	**A**	**A+ & A**	**B**	**C**	**Not Listed**
Percentage of conferences cited in AUIC (as in Table 2)	12%	19%	31%	14%	4%	50%
Percentage of conferences cited in ACSC	14%	22%	36%	14%	8%	42%
Percentage of conferences cited in ADC	15%	26%	41%	19%	9%	30%
Percentage of conferences cited in ACE	5 %	11 %	16 %	21 %	9 %	55 %

Table 2a: A comparison of citations to conferences in each CORE tier in the AUIC proceedings with three other ACSW conferences.

	Number of Citations														
	1	2	3	4	5	6	7	8	12	13	18	28	29	77	**Total**
Number of Conferences	85	19	8	8	4	3	2	1	2	1 SIGGRAPH	1 AUIC	1 CSCW	1 UIST	1 CHI	137
Cumulative Percentage	62.0	75.9	81.8	87.6	90.5	92.7	94.2	94.9	96.4	97.1	97.8	98.5	99.3	100	

Table 3: Number of conferences receiving various numbers of citations from the AUIC2006, AUIC2007 and AUIC2008 proceedings.

	Number of Different Papers that Cite a Particular Conference										
	1	2	3	4	5	6	9	10	17	29	**Total**
Total No. Conferences	91	17	7	1	1	3	1	1	1	1	124
Cumulative Percentage	73.4	87.1	92.7	93.5	94.4	96.8	97.6	98.4	99.2	100	
No. Tier A+	8	2	2			ISWC		SIGGRAPH		CHI	
No. Tier A	11	4	2		INTERACT		CSCW		UIST		
No. Tier B	16	2				AUIC					
No. Tier C	3		HCI								
No. Unlisted	53	9	2	HCC		AVI					

Table 4: Number of conferences receiving citations, excluding self-citations, from various numbers of papers in the AUIC2006, AUIC2007 and AUIC2008 proceedings. For an explanation of the conference acronyms, see Table 5.

Conference	Tier	Cites	CitesXSelf	Papers	PapersXSelf
CHI: International Conference on Human Factors in Computing Systems	A+	77	75	29	29
UIST: ACM Symposium on User Interface Software and Technology	A	29	28	18	17
SIGGRAPH: ACM SIG International Conference on Computer Graphics and Interactive Techniques	A+	13	12	10	10
CSCW: ACM Conference on Computer Supported Cooperative Work	A	28	28	9	9
ISWC: IEEE International Symposium on Wearable Computing	A+	12	9	6	6
AUIC: Australasian User Interface Conference	B	18	8	13	6
AVI: Working Conference on Advanced Visual Interfaces	–	6	6	6	6
INTERACT: IFIP International Conference on Human-Computer Interaction	A	7	6	6	5
HCC: Human Centric Computing Languages and Environments	–	8	5	6	4
InfoVis: IEEE Information Visualization Conference/Symposium	A+	5	4	4	3
WWW: International World Wide Web Conference (ACM)	A+	4	4	3	3
IUI: Intelligent User Interfaces	A	4	4	3	3
MobileHCI: International Conference on Human-Computer Interaction with Mobile Devices and Services	A	3	3	3	3
HCI: International Conference on Human-Computer Interaction	C	7	5	5	3
GI: Graphics Interface	–	6	4	4	3
ICMI: International Conference on Multimodal Interfaces	–	3	3	3	3

Table 5: All conference proceedings cited by three or more papers (excluding self-citations) in the AUIC2006, AUIC2007 and AUIC2008 proceedings. The columns show the CORE tier ("Tier"), total number of citations to the conference ("Cites"), total number of citations to the conference, excluding self-citations ("CitesXSelf"), total number of papers that cited that conference ("Papers"), and total number of papers that cited that conference, excluding self-citations ("PapersXSelf"). The list is ordered (descending) on the last column, then by tier, then by conference name.

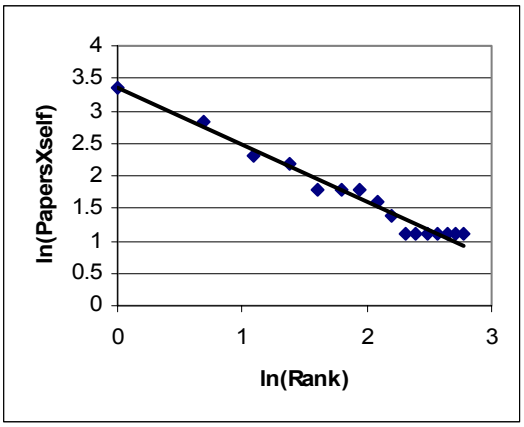


Figure 1: A plot of the natural logarithm of PapersXSelf versus the natural logarithm of the rank of the 16 conferences from Table 5, based on PapersXSelf.

	Tier				
	A*	**A**	**B**	**C**	**Not Listed**
Number of journals cited in AUIC	8	8	18	9	67
Percentage of journals cited in AUIC	7%	7%	16%	8%	61%
Percentage of ranked journals cited in AUIC	19%	19%	42%	21%	–
CORE Overall Percentages (n=834)	6%	18%	28%	49%	

Table 6: Number of citations in the AUIC proceedings to journals cited in each CORE tier, and to journals cited that are not listed by CORE.

	Tier					
	A*	**A**	**A* & A**	**B**	**C**	**Not Listed**
Percentage of journals cited in AUIC (as in Table 6)	7%	7%	14%	16%	8%	61%
Percentage of journals cited in ACSC	13%	16%	29%	9%	4%	58%
Percentage of journals cited in ADC	14%	24%	38%	21%	9%	33%
Percentage of journals cited in ACE	5 %	4 %	9 %	5 %	1 %	85 %

Table 6a: A comparison of citations to journals in each CORE tier in the AUIC proceedings with three other ACSW conferences.

	Number of Citations								
	1	2	3	4	5	7	8	9	**Total**
Number of Journals	71	22	7	4	2	1	1	2	110
Cumulative Percentage	65	85	91	95	96	97	98	100	

Table 7: Number of journals receiving various numbers of citations from the AUIC2006, AUIC2007 and AUIC2008 proceedings

	Number of Different Papers that Cite a Particular Journal							
	1	2	3	4	5	7	8	Total
Total No. of Journals	83	13	6	3	1	1	1	108
Cumulative Percentage	77	89	94	97	98	99	100	
No. Tier A*	TOIS JMIS	PAMI	CSUR TOG	HCI TSE		TOCHI		
No. Tier A	6		JVLC		IJHCS			
No. Tier B	12	4		CGA			CACM	
No. Tier C	8	1						
No. unlisted	55	7	3					

Table 8: Number of journals receiving citations, excluding self-citations, from various numbers of papers in the AUIC2006, AUIC2007 and AUIC2008 proceedings. For an explanation of the journal acronyms, see Table 9.

Journal	Tier	Cites	CitesXSelf	Papers	PapersXSelf
CACM: Communications of the ACM	B	9	9	8	8
TOCHI: ACM Transactions on Computer-Human Interaction	A*	9	9	7	7
IJHCS: International Journal of Human-Computer Studies	A	8	8	5	5
HCI: Human-Computer Interaction	A*	7	7	4	4
TSE: IEEE Transactions on Software Engineering	A*	4	4	4	4
CGA: IEEE Computer Graphics and Applications	B	5	5	4	4
CSUR: ACM Computing Surveys	A*	4	4	3	3
TOG: ACM Transactions on Graphics	A*	3	3	3	3
JVLC: Journal of Visual Languages and Computing	A	3	3	3	3
ERG: Ergonomics	—	4	4	3	3
XPsyGen: Journal of Experimental Psychology: General	—	3	3	3	3
PsyBull: Psychological Bulletin	—	4	4	3	3

Table 9: All journals cited by three or more papers (excluding self-citations) in the AUIC2006, 2007 and 2008 proceedings. The columns show the CORE tier ("Tier"), total number of citations to the journal ("Cites"), total number of citations to the journal, excluding self-citations ("CitesXSelf"), total number of papers that cited that journal ("Papers"), and total number of papers that cited that journal, excluding self-citations ("PapersXSelf"). The list is ordered (descending) on the last column, then by tier, then by journal name.

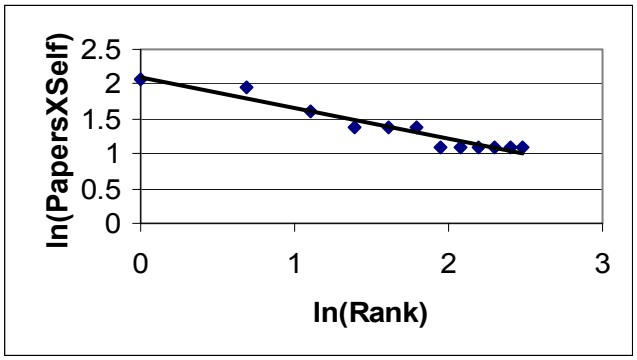


Figure 2: A plot of the natural logarithm of PapersXSelf versus the natural logarithm of the rank of the 12 journals from Table 9, based on PapersXSelf.