Development of an IS Relevance Index

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Abstract

This paper summarises the literature on the lack relevance in IS research. It then introduces the concept of an IS Relevance Index as an initiative to help address the issue and summarises the status of its development. It then presents an exploratory study using ACIS 2005 data to provide a concrete example of how an IS Relevance Index might be implemented in practice and to highlight implications. The findings may be of particular interest to IS Conference Organisers and IS Journal editors. The findings will be of great interest to IS researchers if IS conferences and IS journals choose to adopt the index or some variation.

Keywords

loss of relevance, research measures, research quality framework, RQF, journal acceptance criteria

INTRODUCTION - LOSS OF RELEVANCE AFFECTING SURVIVAL

Whole issues of leading IS journals have been devoted to the topic of relevance in IS research (MISQ 1999 23:1, JAIS 2003 4:5). IS research is considered by many to be ineffective and difficult to apply (Lyytinen 1987; Fitzgerald and Howcroft 1998; Sauer 1999; Bacon and Fitzgerald 2001). Others lament that the academic IS literature is burdened with an abundance of trivial research that requires a very large intellectual investment to understand (Fitzgerald and Adam 1996). Hirschheim and Klein (2003) believe that significant communication gaps have arisen between IS academics, non-IS academics, practitioners and executives because there are few cohesive frameworks for understanding. Markus (1999) suggests there is a crisis in the field because IS research has become largely irrelevant to not only executives and IS practitioners but also to IS students who are not required to read it (Davenport and Markus 1999). Benbasat and Zmud (1999) quote the dean of a business school to have said "As much as 80% of management research may be irrelevant" and show the criticism applies equally to IS research.

Recent discussions on ISWORLD, an important online forum for IS researchers, suggests the problem may be getting worse. One thread confirmed the suspicion that "the IS community is diminishing not only in terms of people interested in IS but also in our perceived influence to society and business" (Lytras 2005). Another thread confirmed that no-one in industry reads or cares about research in the highest ranked IS journals. An informal survey of 137 members of ISWORLD reported that for teaching or consulting only 12% considered research journals important. Trade publications such as Infoworld and Computerworld or practitioner publications like Harvard Business Review or Sloan Management Review were considered much more important at 43% and 42% respectively (Press 2006).

The issue of relevance in IS research would not be so important except that signs suggest (Cox 2003; Ein-Dor 2003) that investments in IT will increase from the current levels of around one trillion dollars per annum (Seddon, Graeser et al. 2002). IT continues to represent for many organisations, their main source of opportunity (Clegg, Axtell et al. 1997) and may be the key to unlock the fifty-fold improvements in productivity promised by the information age (Covey 2004). However the goal has been elusive and evidence suggests organisations are consistently repeating the same mistakes (Collins and Bicknell 1997). Boards and many others are looking for guidance (Young and Jordan 2002). IS research clearly has a role to play but because it lacks relevance (especially to this wider audience), it is failing to contribute where it could add the most value.

LITERATURE REVIEW - THE LOSS OF RELEVANCE

Fitzgerald and Adam (1996) have traced the emergence of IS discipline to the inability of computer technologists to overcome the tendency to view the issues from a narrow technical perspective (Currie and Galliers 1999). However, it has largely failed to reach beyond its technical roots and embrace organisational issues (Benbasat and Weber 1996). It has struggled to establish itself as a field partly because influential academics have challenged its legitimacy (Dearden 1972; Carr 2003).

The need to establish legitimacy lead North American researchers to adopt Keen's (ICIS 1980) keynote suggestions to borrow concepts and theories from reference disciplines such as the management, cognitive and organisational sciences and economics (Benbasat and Weber 1996). However the widespread adoption of different reference disciplines' concepts and methodologies fragmented the field and left it without a common body of knowledge (Benbasat and Weber 1996).

Paradigm issues

The quest for legitimacy through the widespread adoption of accepted rational scientific frameworks may have created a major problem (Orlikowski and Baroudi 1991; Goles and Hirschheim 2000). Empirical findings spread over decades of research have not produced convincing evidence to support simple causal models (Robey and Boudreau 2000). Many now believe that organisational issues are not amenable to simplistic positivist factor research because there are a large number of highly interrelated factors that are difficult to mathematically isolate and 'prove' causal relationships (Walsham 1995; Lee 1999b; Lee 1999a; Sauer 1999). The conclusion is that the attempt to conceptualise complex organisational IS phenomena through mechanistic frameworks "may never have been appropriate for the study of IS" (Hirschheim 1985; Varey, Wood-Harper et al. 2002). Interpretive IS research has arisen in response to these issues but it has yet to offer any solutions (Sauer 1999) and there is the risk it will never offer any solutions because it favours description over generalisation (Fitzgerald and Howcroft 1998).

Obstacles to relevance

Benbasat and Zmud (1999) identify five main reasons why a relevant research tradition has not developed. Firstly, the historical battle to establish legitimacy has emphasised rigor over relevance. Secondly, there has been a lack of a cumulative tradition (Orlikowski and Iacono 2001) because IS researchers have tended to be technophiles at heart and would much rather invent than adopt. This second issue is compounded by the proliferation of IS journals making it harder and harder to locate and access, let alone build upon, the work of others. Thirdly, the dynamism of IT and the requirement for rigor leads to reporting after the fact of a new technologies acceptance (and in many cases its rejection) by practice. Fourthly, limited exposure to relevant contexts because academics have little time for regular exposure to practitioner contexts and a lack of financial and human resources tends to restrict their access to the latest technology. Lastly, institutional and political factors sustain the first obstacle in that the 'publish or perish' syndrome tends to preserve the existing power structures within established, elite cliques, in which there is little incentive for change.

Recommendations for the way forward

Benbasat and Zmud (1999) note that over the last decade, cumulative traditions have developed and that high standards of rigor are now being achieved. They conclude that we can afford to shift some of our attention toward relevance without undue concern about being criticized by others. In their seminal 1999 article they made nine valuable recommendations. Eight of these recommendations related to the authors responsibility to produce relevant manuscripts. The ninth related to journal editors who decide which of the submitted manuscripts will be published. They note that this ninth recommendation is more important:

"the forces of institutional patronage will limit the scope of such a shift ... the institutional context ... continues to pose significant challenges for the IS community" (Benbasat and Zmud 1999) (p7)

Benbasat and Zmud's (1999) eight recommendations for authors relate to the selection of relevant topics (long-term critical success factors, an ongoing issue to which we have been unable to find answers and likely to be important in 3-5 years) the output (should produce recommendations that are implementable in practice, synthesise a body of research or stimulate critical thinking) and the style. Their specific recommendations after choosing a relevant topic are listed below.

- Synthesise concepts and build on other theories to "develop frames of reference that are intuitively meaningful to practitioners" and "reorganise phenomena such that they seem less complex".
- Conduct research to test frameworks, stimulate critical thought and find implementable solutions.
- Write in a style that will be read. Relevant articles should be shorter, use more exhibits, use everyday language, have more contextual descriptions and have more prescriptions. Descriptive case studies are particularly appropriate.

Many other researchers have added to how authors can create more relevant research. Lyytinen and King (2004) support the call for relevance but question the need for a defined core. Myers (2003) argues against a narrow technical core and others concur by proposed broad frameworks capable of incorporating organisational issues (Alter 1999; Bacon and Fitzgerald 2001).

Davenport and Markus (1999) argue for fundamental change and suggest IS should lead in relevance by emulating colleagues in medicine and law rather than in the business schools. Lee (1999b) agrees and adds that relevance requires the production of knowledge about how to intervene in the world and change it to satisfy real world needs but the natural science tradition only formulates, tests and validates theories about the relationships between independent and dependent variables.

However, very little if any progress has been made in addressing Benbasat and Zmud's (1999) ninth recommendation.

"Editors and editorial boards need to critically examine their current postures, reviewing procedures, and editorial decisions concerning the balance between rigor and relevance with the goal of publishing manuscripts that are characterised by both".

They acknowledged that the primary force influencing IS academics are the signals provided by the leading IS journals and add that if the IS discipline is to become more relevant, this change must be fostered by our leading journals. They state that "journal editors need to rethink their behaviours regarding acceptance/rejection criteria and related signals (reviewer feedback, editorial comments and published articles) sent to current and future authors (p7).

ONE STEP TOWARD IMPROVED RELEVANCE - AN I.S. RELEVANCE INDEX

There are no obvious signs that senior academics or the leading journals feel any urgency to make systemic changes to encourage more relevant research. It is perhaps naïve to expect the inertia of institutional and political factors will be addressed without some kind of external impetus. The proposed introduction of a national Research Quality Framework (RQF) around 2007/8 may provide a trigger within Australia. However, this alone may not be enough. The current system has worked well for the incumbents and it may be that the understanding of relevance is too underdeveloped for key stakeholders to encourage it without undermining the advantages of existing arrangements. Many of the leading universities seem to be focussed more on understanding the implications of the RQF on funding and developing strategies to favourably renegotiate terms, rather than embracing the opportunity for change.

The authors believe the development of an IS Relevance Index could provide a valuable and relatively non-threatening way to increase the relevance of IS research. The RQF is likely to allocate a significant amount of funding to high-impact areas, and it is sensible for the key stakeholders to be proactive in defining the measures of high-impact. The development of an IS Relevance Index has additional merit because it would create an intervention that is shaped to reflect the ways in which researchers think (Shapira 1995); and there is a body of evidence to suggest what gets measured tends to be addressed (Kaplan and Norton 1996).

The authors agree that changes are needed in the acceptance policies of our leading journals, but feel that it may be tactically more effective to explore change through leading IS conferences first. Within the IS field most would recognise ICIS to be one of the leading conferences internationally and ACIS as a leading conference within Australia. However, ICIS has the reputation of strongly favouring rigour over relevance and does not recommend itself as the best starting point.

Organisers of ACIS 2006 and ACIS 2007 were approached regarding the piloting of the IS Relevance Index on the basis of voluntary involvement by reviewers and authors, and with no impact on paper acceptance. Both groups recognised the merits of the idea and agreed to trial the IS Relevance Index. This involved the addition of

several extra items in the double-blind review process and the implementation of them into the online submission process.

The intention is to develop a measure of relevance that is likely to encourage researchers to conduct more relevant research. It will also provide some empirical data that may help conference organisers and journal editors explore whether acceptance criteria should include measures of relevance. The intention of this pilot study is not only to develop a reliable index, but also to get a sense of whether it could be used effectively to influence behaviour.

The IS relevance index is guided by the literature and assesses relevance for important stakeholder audiences. The key stakeholders identified by Hirschheim and Klein (2003) were: IS academics, non-IS academics, practitioners and executives. ACIS organisers suggested subdividing the executive audience (into IS and non-IS executives) and adding three additional stakeholder groups (Students by coursework, Society and Government) were identified in a feedback session at ACIS2004.

It was proposed and agreed that reviewers would be provided with the criteria of relevance suggested by Benbasat and Zmud (1999). However, the criteria for style was not included because it was assumed that in the first instance the writing style for ACIS or IS journals would be largely irreconcilable with the style demands of a practitioner journal. The pilot would therefore only attempt to identify articles with content relevant to the stakeholder audiences. It was assumed that they would require rewriting for other outlets. Those found not to require rewriting would be a bonus. It was decided to adopt a five point Likert scale rather than a simple yes/no response, as it would yield richer., more refined data.

However, the poor track record of researchers in producing relevant research presents a major weakness that needs to be addressed. Academic reviewers may not be the best judge of relevance for non-IS audiences. Therefore it is proposed that the input of editors of journals targeting the specific stakeholder audiences be sought to validate the IS relevance index. Authors and reviewers will be asked to identify articles of potential relevance for different stakeholder audiences (i.e. papers scoring 4 or 5 on a five point Likert scale) and journal editors would confirm or refute the relevance of papers for their specific audiences. It is proposed that editors of Business Review Weekly, The Australian, and the Sydney Morning Herald be sought to validate papers for non-IS Executives; that editors from CIO and MIS magazines perform the same role for IS-executives; and that editors from Computerworld, Infoworld and Information Age undertake the role for practitioners. If agreed, it is proposed that the authoring researchers would be approached by the various journal editors to redraft articles in a style appropriate to their audience. This would result in a win-win situation where researchers would gain additional publications, journal editors would source additional high quality articles, and IS research as a whole would increase its impact.

The proposed IS relevance index in the medium to long term has the potential to influence researchers' behaviour toward producing more relevant research. The extent to which this occurs will in part depend upon how widely leading conferences and journals choose to implement it in some form in their selection criteria.

METHODOLOGY - PILOT OF I.S. RELEVANCE INDEX

The proposed trialling of an IS Relevance Index at ACIS 2006 and ACIS 2007 will provide longitudinal data. This paper builds on this objective by reviewing historical data from ACIS 2005. It intends to simulate the type of data that will be gathered at ACIS 2006 and ACIS 2007 and will provide a first opportunity to identify methodological or other issues that may need to be resolved in order for the IS Relevance Index to have validity.

It is hoped the results of this study will be useful to supplement the longitudinal data gathered for ACIS 2006 and ACIS 2007. It is also hoped that the study will validate the historical review methodology and that it will be possible to repeat the analysis for past conferences and published journals. Furthermore, the study will provide a concrete example for journal editors such as BRW, CIO, etc. to assess the amount of effort required and help secure their commitment to participate in the development of the index.

This pilot study is based on reviews of abstracts from papers accepted for ACIS 2005. The two authors will independently review each abstract and make the assessment of whether s/he believes the paper would be relevant to one of the eight different stakeholder audiences. The methodology followed will be to independently review ten papers and then compare assessments of relevance to gain an early understanding of differences in interpretation of relevance that might exist between reviewers. Each reviewer will then have the option of revising their evaluations of the relevance of the first ten papers before reviewing the remaining abstracts.

It should be noted that the methodology of this study means the results will not be directly comparable to the data that will be gathered from ACIS 2006 and ACIS 2007. The data from these later conferences will have many reviewers whereas this study will only have two. There will be a much higher level of consistency in the interpretation of relevance between papers in this pilot. However, reviewers in ACIS 2006 and ACIS 2007 will have the benefit of reviewing entire papers rather than just the abstract. While the reviewers in this study both had papers accepted in ACIS 2005 and have access to the full papers, time constraints dictate that their assessments are based on the abstracts. The authors believe that it is likely, the ratio of relevant papers identified in the current approach will provide a guide to the numbers that will be identified through the proposed methodology for ACIS 2006 and ACIS 2007.

RESULTS AND DISCUSSION

112 abstracts were reviewed in total. Reviewer 1 reviewed all 112 abstracts. Time constraints limited Reviewer 2 to consider only 37 abstracts. However this created a surprisingly useful simulation of the situation where 67% of reviewers might choose not to evaluate the relevance of a paper. The implications are discussed below and the detailed reviews are presented in Appendix 2.

The comparison after the first ten reviews found that it was important to clarify that the assessment was being made of whether a paper *would* be relevant as opposed to whether it *should* be relevant. It is not a normative assessment, but rather an assessment based on the reviewers understanding of what might be accepted for publication in a journal targeted at a specific stakeholder audience. This made assessment much more difficult for one of the reviewers because s/he experienced higher levels of doubt of whether s/he had an adequate understanding of the interests of various stakeholder audiences. N.B. It is interesting to reflect that s/he had less difficulty making the normative assessment of whether they should read an article.

It was found that of the 1,792 evaluations that had to be made in total, only 41 or 2.3% were significantly different between reviewers (that is where the maximum rating was more than 150% of the average rating). However, this variance is heavily influenced by the number of reviews that were not completed and the variance is better reported as 6.9% or 41 significant differences out of the 592 evaluations that could be compared. This is surprisingly consistent and it will be interesting to compare this with ACIS 2006 and ACIS 2007 data where there will be many more reviewers making assessments.

A five-point Likert scale was used (1 = Strongly Disagree, 2 = Tend to Disagree, 3 = Neutral, 4 = Tend to Agree, 5 = Strongly Agree). It was found that in interpreting the results, the most meaningful statistics were whether a reviewer strongly agreed that a paper was relevant or tended to agree that a paper was relevant. It seemed unimportant whether reviewers were neutral, tended to disagree or strongly disagreed if a paper was relevant. Based on this insight, it seemed best to construct the IS Relevance Index on either the ratio of strong agreements or the ratio of the number of strong agreement plus the number of tend to agrees.

It was found that based on the most favourable reviewer rating there were no more than four papers (4%) given a strongly agree assessment for any one stakeholder group. This is very low and possibly reflects the very conservative word-of-mouth phenomenon where people are reluctant to recommend something unless they are sure it is good. The negative implications of reporting 'only 4% of the papers were relevant' suggest that the IS Relevance Index should not be constructed so conservatively. It seems much better to sum the number of strong agreements with the tendency to agree to calculate an optimistic estimate of the IS Relevance Index. The data suggests it would be 62% for IS audiences, 20% for non-IS audiences, 31% for IS practitioners, 36% for IS executives, 26% for non-IS executives, 18% for students by coursework, 3% for society at large, and 21% for government. This seems quite credible and recommends itself as an acceptable method of constructing an IS Relevance Index.

The implication of these results is that for ACIS 2005, an editor of a IS practitioner journal might be asked to review three strong recommendations and 32 possible recommendations. The editor of an IS-executive journal might be asked to review four strong recommendations and 36 possible recommendations. The editor of a general management journal might be asked to review 29 possible recommendations and no strong recommendations. The recommendations for students seem to be largely captured by either the IS practitioner and IS and non-IS executive categories. This suggests that separately identifying them as an audience has limited value and that the category should be removed in the future. The same can be said for the society category which only had three possible recommendations. The government category however, proved to be a very valuable inclusion with three strong recommendations and 21 possible recommendations. An appropriate journal should

therefore be targeted for participation. These results are summarised in Table 1 and the specific papers identified for each stakeholder audience are listed in Appendix 3.

Table 1: IS Relevance Index based on most favourable reviewer ratings

Summary Statistics

	This	paper	woul	d be r	eleva	nt to:			
IS academics	non-IS academics	IS practitioners	snr IS execs	exec mngt	students	society	govt		
Most favourable reviewer rating Strongly Agree 5 2 0 3 4 0 2 0 3									
2	0		4	0	2	0	3		
67	22	32	36	29	18	3	21		
39	25	39	28	19	37	6	28		
4	26	22	20	20	32	15	27		
0	39	16	24	44	23	88	33		
112	112	112	112	112	112	112	112		
3.6	2.27	2.86	2.79	2.29	2.5	1.32	2.41		
2%	0%	3%	4%	0%	2%	0%	3%		
60%	20%	29%	32%	26%	16%	3%	19%		
62%	20%	31%	36%	26%	18%	3%	21%		
	<u>ver ra</u> 2 67 39 4 0 112 3.6 2% 60%	Solution Solution	Sample S	Solution Solution	Simple S	Sample S	∞ 2 % ∞ √√√√√ √√√√√ √√√√√ √√√√√ √√√√√ √√√√√ √√√√√ √√√√√ √√√√√√ √√√√√√ √√√√√√ √√√√√√√ √√√√√√ √√√√√√ √√√√√√√ √√√√√√√ √√√√√√√√ √√√√√√√√√ √√√√√√√√ √√√√√√√√ √√√√√√√√√ √√√√√√√√		

A separate study was conducted based on the average reviewer rating rather than the most favourable reviewer rating. If was found it was mathematically more complex to create and interpret. For example an assessment had to be made of whether an average of 3.5 represented a possibly relevant paper or a neutral paper. This additional need for interpretation reduced the value of this method and this is compounded by doubt on whether the Likert scale represents a continuous phenomenon that can be mathematically averaged or not. The assessment of relevance is based on clear criteria but the assessment is still subjective. It seems more likely that the tipping points between non-relevant, possibly relevant and probably relevant are bimodal or even trimodal phenomena and the use of averages probably invalidated. What strengthens this conclusion is that the IS Relevance Index tends not to be significantly different when compared to the calculation using the most favourable reviewer rating (59% vs 62% for IS academics, 15% vs 20% for non-IS academics, 19% vs 31% for IS practitioners, 30% vs 36% for IS executives, 20% vs 26% for non-IS executives, 13% vs 18% for students by coursework, 2% vs 3% for society and 16% vs 21% for government).

The discomfort of one reviewer in making assessments of relevance on behalf of other stakeholders highlights a final important issue. It seems unwise to create a measure where IS researchers self-evaluate the relevance of research for other stakeholder groups. It seems better to use the most favourable reviewer rating to give an optimistic estimate of the relevance index and to rely on external journal editors to determine the reported relevance for a particular stakeholder audience.

Limitations

The research in this paper has been exploratory in nature. We have no way of knowing at this stage whether the papers identified by the reviewers will be found to be relevant by practitioner journal editors. The method of identifying potentially relevant papers seems reasonable but the data itself is limited because one reviewer only reviewed 33% of the papers. This probably represents an extreme of what might occur in the data collections for ACIS 2006 and ACIS 2007. The implications are that fewer papers would be identified than would otherwise be the case and the IS Relevance Index has the potential to be underestimated. A comparison of the reviews of Reviewer 1 and Reviewer 2 suggests that in this study, the possibility of underestimating may have been mitigated because Reviewer 1 has given more strong agreement evaluations. Reviewer 2 has given none, and may have been the more severe reviewer.

This possibility of overestimating is also balanced to some extent by the review of abstracts rather than the full paper. The reviewers will have tended to give researchers the benefit of any doubt based on the abstract. Given the nature of abstracts, a full review of a paper is more likely to lead to its exclusion than its inclusion. However, this remains a major limitation in the study and it is suggested that the main contribution has been to identify potential issues rather than the estimated numerical value of the index.

CONCLUSION

The main contributions of this paper are threefold. Firstly, it demonstrates that data can be collected with relatively little effort to calculate an IS Relevance Index. Secondly, it has shown that the validation of the data by practitioner journal editor(s) is likely to involve the review of between two and four papers, and between 21 to 36 abstracts to identify more papers for review (a non-trivial but reasonable commitment from an interested collaboration partner or conference sponsor). Thirdly it has shown that the interpretation of the results is likely to have meaning. However, the likely effect of the proposed IS Relevance Index on behaviour has not been explored and the paper is presented to seek feedback for its ongoing development.

Subject to the limitations of the study, it is possible that the ACIS 2005 IS Relevance Index for IS academics will be found to be around 62%. The best we could say for non-IS academic audiences is that if practitioner journal editors were to agree with the reviewers in this study, the IS relevance index will be reported to be 31% of IS practitioners, 36% for IS executives and 26% for non-IS executives. If we can identify representative journal(s) for government audiences, we may also be able to confirm the relevance index of ACIS 2005 government is 21%.

The study suggests that the development of an IS Relevance Index is a worthwhile exercise. It is beneficial in providing a simple, quantifiable metric indicator of research relevance. More importantly, it may act as a prompt to change the behaviour of IS researchers toward producing more relevant research. This is especially significant as the debate within the discipline so far has been at a philosophical level, with a notable absence of practical mechanisms and measures such as this. Our next step will be to invite practitioner journals to join in collaborative partnerships wherein this study can be used to provide a concrete example of what might be involved. It also suggests that if the limitations of the study can be addressed and collaborative partnerships established, the process may be applied to many other past, present and future journal and conference contexts.

REFERENCES

- Alter, S. (1999). <u>Information systems: a management perspective</u>. Reading, Massachusetts, Addison Wesley.
- Bacon, C. J. and B. Fitzgerald (2001). "A Systemic Framework for the Field of Information Systems." <u>Database for Advances in Information Systems</u> **32**(2): 46-67.
- Benbasat, I. and R. Weber (1996). "Research Commentary: Rethinking "Diversity" in Information Systems Research." Information Systems Research 7(4): 389-399.
- Benbasat, I. and R. W. Zmud (1999). "Empirical Research in Information Systems: The Practice of Relevance." MIS Quarterly **23**(1): 3-16.
- Carr, N. G. (2003). "IT Doesn't Matter." Harvard Business Review 81(5): 41-49.
- Clegg, C., C. Axtell, et al. (1997). "Information technology: a study of performance and the role of human and organizational factors." <u>Ergonomics</u> **40**(9): 851-871.
- Collins, T. and D. Bicknell (1997). <u>Crash: ten easy ways to avoid a computer disaster</u>. London, Simon and Schuster.
- Covey, S. R. (2004). The 8th Habit: from Effectiveness to Greatness. New York, Free Press.
- Cox, G. (2003). "Business computing 2001 the state of the art." Strategic Information Systems 12: 285-294.
- Currie, W. and B. Galliers, Eds. (1999). <u>Rethinking Management Information Systems</u>. New York, Oxford University Press.
- Davenport, T. H. and M. L. Markus (1999). "Rigor vs. Relevance Revisited: Response to Benbasat and Zmud." MIS Quarterly 23(1): 19-23.
- Dearden, J. (1972). "MIS is a Mirage." <u>Harvard Business Review</u> **Jan-Feb**: 90-99.
- Ein-Dor, P. (2003). "The world and business computing in 2051: from LEO to RUR?" <u>Journal of Strategic Information Systems</u> **12**: 357-371.

- Fitzgerald, B. and F. Adam (1996). <u>The Future of IS: Expansion or Extinction?</u> First Conference of the UK Academy for Information Systems, Cranfield University.
- Fitzgerald, B. and D. Howcroft (1998). "Towards dissolution of the IS research debate: from polarization to polarity." <u>Journal of Information Technology</u> **13**(4): 313-326.
- Goles, T. and R. Hirschheim (2000). "The paradigm is dead, the paradigm is dead...long live the paradigm: the legacy of Burrell and Morgan." Omega **28**(3): 249-268.
- Hirschheim, R. A. (1985). Information systems epistemology: an historical perspective. Research methods in information systems. E. Mumford, R. Hirshheim, G. Fitzgerald and A. T. Wood-Harper (ed). North-Holland, Elsevier Science Publishers.
- Hirschheim, R. A. and H. K. Klein (2003). "Crisis in the IS field? A Critical Reflection on the State of the Discipline." Journal of the Association for Information Systems **4**(5): 237-293.
- ICIS (1980). Keynote Address. First International Conference on Information Systems.
- Kaplan, R. S. and D. P. Norton (1996). <u>The balanced scorecard: translating strategy into action</u>. Boston, Harvard Business School Press.
- Lee, A. S. (1999a). Researching MIS. <u>Rethinking Management Information Systems: an interdisciplinary perspective</u>. W. Currie and B. Galliers (ed). New York, Oxford University Press: 7-27.
- Lee, A. S. (1999b). "Rigour and relevance in MIS Research: beyond the approach of positivism alone." <u>MIS</u> Quarterly **23**(1): 29-34.
- Lytras, M. (2005). "Is our community in the wrong way?" Retrieved 10 Jun 2005, 2005, from isworld@lyris.isworld.org.
- Lyytinen, K. (1987). "Different Perspectives on Information Systems: Problems and Solutions." <u>ACM Computing Surveys</u> **19**(1): 5-46.
- Lyytinen, K. and J. L. King (2004). "Nothing At The Centre?: Academic Legitemacy in the Information Systems Field." <u>Journal of the Association for Information Systems</u> **5**(6): 220-246.
- Markus, L. M. (1999). Thinking the unthinkable: what happens if the IS field as we know it goes away. <u>Rethinking Management Information Systems</u>. B. Galliers and W. Currie (ed). New York, Oxford University Press: 175-203.
- Myers, M. D. (2003). "The IS Core VIII: Defining the Core Properties of the IS Discipline: Not Yet, Not Now." <u>Communications of the AIS</u> **12**(38): 582-587.
- Orlikowski, W. J. and J. J. Baroudi (1991). "Studying information technology in organizations: research approaches and assumptions." <u>Information Systems Research</u> **2**(1): 1-28.
- Orlikowski, W. J. and C. S. Iacono (2001). "Desperately seeking the "IT" in IT research: a call to theorizing the IT artifact." <u>Information Systems Research</u> **12**(2): 121-134.
- Press, L. (2006). "how many course designs are there in a horses mouth?" Retrieved Sun 19 March, 2006, from isworld@lyris.isworld.org.
- Robey, D. and M.-C. Boudreau (2000). Organizational consequences of information technology: dealing with diversity in empirical research. <u>Framing the Domains of IT Management: projecting the future through the past</u>. R. W. Zmud (ed). Cincinnati, Ohio, Pinnaflex Educational Resources: 51-62,412-415.
- Sauer, C. (1999). Deciding the Future for IS Failures Not the Choice You Might Think. <u>Rethinking Management Information Systems</u>. B. Galliers and W. Currie (ed). New York, Oxford University Press.
- Seddon, P. B., V. Graeser, et al. (2002). "Measuring Organizational IS Effectiveness: An Overview and Update of Senior Management Perspectives." <u>Database for Advances in Information Systems</u> **33**(2): 11-28.
- Shapira, Z. (1995). Risk Taking: a managerial perspective. New York, Sage.
- Varey, R. J., T. Wood-Harper, et al. (2002). "A theoretical review of management and information systems using a critical communications theory." <u>Journal of Information Technology</u> **17**: 229-239.
- Walsham, G. (1995). "The emergence of interpretivism in IS research." <u>Information Systems Research</u> **6**(4): 376-394.
- Young, R. C. and E. Jordan (2002). <u>Lifting the Game: Board views on e-commerce risk</u>. IFIP TG8.6 the adoption and diffusion of IT in an environment of critical change, Sydney.

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APPENDIX 1 – SURVEY INSTRUMENT

The proposal to ACIS 2006 suggested the following points:

- Reviewers would be asked to respond (voluntarily) to the extra 3 items of review.
- Authors would be asked to respond (voluntarily) to item 1 only
- The tracking number given to each paper would be used to link the responses to the specific papers while preserving author and reviewer anonymity.
- Ratings and comments associated with pilot be reported in the 'not for author' section of the feedback.
- Make it clear that relevance is not a criterion for acceptance in this year's review.
- Have the responses grouped into accepted and not accepted papers.

The first item should be completed for each paper reviewed. The second and third items need only be completed by each reviewer once.

rela ong proc con phe find stak	the to: (1) Overall relevance of topic (a critical success factor, an oing issue, a problem to which we have been unable to find a solution, bably important in 3-5 years, etc.), (2) relevance of frameworks and/or cepts introduced (because they are intuitively meaningful, makes sense of momena in ways to make them seem less complex, etc.), (3) relevance of lings (by stimulating critical thought with implications for any of the scholders, being implementable, useful in teaching material, etc.) are indicate your agreement or disagreement with each statement by ing the appropriate response on the 1-to-5 point scale:	I = Strongly Disagree	2 = Tend to Disagree	3 = Neutral	4 = Tend to Agree	5 = Strongly Agree
1	This paper would be relevant to IS academics		\square_2	\square_3	\square_4	
2	This paper would be relevant to non-IS academics		\square_2	\square_3	\square_4	\square_5
3	This paper would be relevant to IS practitioners		\square_2	\square_3	\square_4	\square_5
4	This paper would be relevant to senior IS executives		\square_2	\square_3	\square_4	\square_5
5	This paper would be relevant to executive management		\square_2	\square_3	\square_4	\square_5
6	This paper would be relevant to students by coursework		\square_2	\square_3	\square_4	\square_5
7	This paper would be relevant to society at large		\square_2	\square_3	\square_4	\square_5
8	This paper would be relevant to government		\square_2	\square_3	\square_4	\square_5
2	In light of the managed Descends Orality Franciscopy initiative of the	. A «4	lian Ca		4	

In light of the proposed Research Quality Framework initiative of the Australian Government, do you think the issue of relevance should be included in the acceptance criteria for papers at academic conferences (such as ACIS)?

Yes □1
No □2
No opinion □3

We welcome any comments you (as a reviewer) wish to make regarding the issues of relevance and/or impact of academic papers, and whether such criteria should form part of the acceptance criteria for conferences such as ACIS.

APPENDIX 2 – DETAILED REVIEWS

Reviewer 1																	
Paper ID	IS academics	non-IS academics	IS practitioners	snr IS execs	exec mngt	students	society	govt	Paper ID	IS academics	non-IS academics	IS practitioners	snr IS execs	exec mngt	students	society	govt
220	4	1	1	3	2	1	1	1	42	4	1	4	4	4	3	1	3
136	4	3	3	4	4	3	1	4	92	4	2	4	3	2	3	1	3
44	3	2	4	4	4	4	1	3	134	4	1	3	2	1	4	1	2
245	4	1	2	2	1	1	1	1	17	4	3	4	4	4	4	1	3
121	3	1	2	3	3	2	1	1	41	3	2	2	1	1	1	3	2
159	3	1	2	2	1	1	1	1	65	4	1	2	2	1	3	1	2
22	3	3	4	4	4	3	2	2	1	4	3	3	3	2	4	2	3
58	3	2	4	4	3	2	1	1	28	4	4	3	4	4	4	1	4
94	3	1	4	4	3	2	1	2	223	4	4	3	4	4	4	1	4
109	3	2	3	3	2	2	1	3	124	4	1	4	4	4	4	1	2
19	3	2	3	3	2	2	1	4	215	3	1	2	2	1	2	1	3
93	4	4	2	4	4	3	2	2	77	5	1	2	2	1	3	1	3
218	3	2	2	3	2	1	1	3	162	3	1	4	4	1	2	1	3
53	3	2	3	4	4	3	1	2	122	4	2	4	4	4	4	3	4
120	3	1	4	3	2	2	1	2	16	4	4	2	4	4	2	1	4
75	3	1	2	1	1	1	1	2	140	4	2	3	1	1	2	1	3
117	4	2	4	5	4	3	1	2	144	4	4	2	1	1	2	1	1
145	4	4	3	4	4	2	1	3	43	4	3	4	2	1	5	1	3
33	5	2	4	3	3	4	4	4	115	4	1	3	1	1	1	1	1
45	3	1	3	4	3	2	1	2	174	3	3	1	1	1	1	1	1
81	3	1	4	3	1	2	1	1	125	3	2	3	1	1	1	1	1
123	3	1	2	1	1	1	1	1	99	3	1	1	1	1	1	1	1
76	4	3	3	4	4	4	1	3	217	4	1	1	1	1	2	1	1
106	4	3	4	4	4	4	1	3	225	3	3	1	1	1	1	1	1
170	2	1	1	1	1	1	1	1	69	4	3	4	4	2	4	1	4
74	4	3	3	3	2	3	1	2	254	3	1	1	1	1	3	1	1
146	4	2	4	3	2	2	1	3	36	3	1	1	1	1	1	1	1
192	4	3	4	3	2	3	1	2	79	3	3	1	1	1	3	1	2
113	3	1	2	2	1	2	1	1	104	2	3	2	1	1	2	3	3
167	4	3	5	4	3	5	2	4	149	4	1	4	3	2	3	1	3
35	4	1	5	5	4	4	1	4	118	3	4	3	1	1	2	1	1
110	4	2	3	2	1	3	1	2	153	4	4	3	3	3	3	1	4
175	3	1	4	2	1	2	1	1	3	4	3	3	3	3	3	3	5
139	4	2	3	3	3	3	1	1	163	3	2	2	2	2	2	2	5
214	4	1	1	1	1	3	1	1	197	2	4	3	1	1	1	1	1
235	4	1	1	1	1	3	1	1	59	3	2	2	2	2	3	3	2
154	4	1	3	2	1	3	1	2	105	3	4	1	1	1	1	1	1
95	4	1	3	4	3	3	1	3	178	3	2	1	1	1	1	1	1
187	4	1	4	3	2	2	1	2	132	4	1	3	3	1	1	1	3
112	4	4	3	4	3	2	1	3	179	4	4	3	2	3	2	1	1

Paper ID	IS academics	non-IS academics	IS practitioners	snr IS execs	exec mngt	students	society	govt	Paper ID	IS academics	non-IS academics	IS practitioners	snr IS execs	exec mngt	students	society	govt
212	3	3	2	2	2	2	2	1	9	4	3	4	4	4	3	1	4
80	3	1	4	3	1	2	1	2	188	4	2	5	5	4	4	4	4
137	3	1	4	4	1	3	1	1	248	3	1	3	3	3	2	2	3
246	4	2	3	4	4	3	2	4	135	4	2	4	5	4	3	1	4
27	4	4	3	4	4	3	1	1	165	4	4	4	4	4	4	2	4
171	4	2	4	4	2	3	1	3	10	3	2	4	4	3	3	1	5
200	4	3	2	2	2	1	1	4	85	4	4	4	4	4	4	4	4
98	3	1	4	3	1	3	1	1	111	3	2	2	3	2	3	2	4
222	3	1	1	1	1	1	1	1	78	2	1	1	1	1	1	1	2
2	4	1	3	3	1	3	1	2	229	4	2	2	3	3	3	1	2
240	3	3	3	2	2	2	3	3	198	3	1	2	2	1	1	1	3
237	3	2	3	3	3	2	2	3	202	3	1	1	2	1	1	1	1
19	3	4	3	3	4	3	2	2	219	3	4	3	3	3	2	1	1
269	4	3	4	4	4	3	2	4	226	4	2	3	4	4	4	1	2
26	2	3	3	2	1	2	1	1	82	3	3	2	2	2	2	1	2
38	4	2	3	4	4	3	2	3	210	4	3	3	4	3	4	2	2
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Paper ID	IS academics	non-IS academics	IS practitioners	snr IS execs	exec mngt	students	society	govt
220	4		1	4	3	1	1	1
136	4	1	1	4	3	1	1	1
44	3	4	1	4	4	1	1	1
245	4	1	3	3	3	1	1	4
121	4	3	1	2	1	1	1	3
159	4	4	1	1	1	1	1	1
22	4	4	1	4	4	1	1	1
58	4	1	1	4	2	1	1	1
94	4	1	1	4	4	1	1	1
109	4	1	1	1	1	1	1	1
19	3	4	1	1	1	1	1	1
93	2	1	1	1	1	1	1	1
218	2	1	1	1	1	1	1	1
53	3	1	1	1	1	1	1	1
120	4	1	1	1	1	1	1	1
75	3	3	1	1	1	1	1	1
117	4	4	1	2	1	1	1	1
145	4	4	1	1	1	1	1	1
33	3	1	1	1	1	1	1	1

Paper ID	IS academics	non-IS academics	IS practitioners	snr IS execs	exec mngt	students	society	govt
45	4	1	1	3	3	1	1	1
81	3	1	1	1	1	1	1	1
123	3	1	1	1	1	1	1	1
76	3	1	1	1	1	1	1	1
106	4	1	1	1	2	1	1	1
170	4	1	1	1	1	1	1	1
74	3	2	1	1	1	1	1	1
146	3	2	1	1	1	1	1	1
192	3	3	1	1	1	1	1	1
113	2	1	1	1	1	1	1	1
167	3	1	1	3	1	1	1	1
35	3	1	1	1	1	1	1	1
110	4	1	1	1	1	1	1	1
175	3	1	1	1	1	1	1	1
139	2	2	1	1	1	1	1	1
214	3	1	1	1	1	1	1	1
235	3	1	1	1	1	1	1	1
154	3	1	1	1	1	1	1	1

APPENDIX 3 – RELEVANT PAPERS BY STAKEHOLDER AUDIENCE

Papers recommended for IS academics

Papers reco <u>mmended fo</u> r l							
Paper ID	Max	Avg					
77	5	5					
33	5 5 4	4					
220		4					
136	4	4					
245	4	4					
117	4	4					
145	4	4					
106	4	4					
110	4	4					
95	4	4					
187	4	4					
112	4	4					
42	4	4					
92	4	4					
134	4	4					
17	4	4					
65	4	4					
1	4	4					
28	4	4					
223	4	4					
124	4	4					
122	4	4					
16	4	4					

ics		
140	4	
144	4	
43	4	
115	4	
217	4	
69	4	
149	4	
153	4	
3	4	
132	4	
179	4	
246	4	
27	4	
171	4	
200	4	
2	4	
269	4	
38	4	
9	4	
188	4	
135	4	
165	4	
85	4	
229	4	

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4	4	
4	4	
4	4	

226	4	4
210	4	4
121	4	3.5
159	4	3.5
22	4	3.5
58	4	3.5
94	4 4 4 4 4	3.5
109	4	3.5
120	4	3.5
45	4	3.5
76	4	3.5
74	4	3.5
146	4	3.5
192	4	3.5
167	4	3.5
35	4	3.5
214	4	3.5
235	4	3.5
154	4	3.5
93	4	3
170	4	3
139	4	3

Papers recommended for IS practitioners

Paper ID	Max	Avg
188	5	5
167	5	3
35	5	3
187	4	4
42	4	4
92	4	4
17	4	4
124	4	4
162	4	4
122	4	4
43	4	4
69	4	4

Paper ID	Max	Avg
149	4	4
80	4	4
137	4	4
171	4	4
98	4	4
269	4	4
9	4	4
135	4	4
165	4	4
10	4	4
85	4	4
44	4	2.5

Paper ID	Max	Avg
22	4	2.5
58	4	2.5
94	4	2.5
120	4	2.5
117	4	2.5
33	4	2.5
81	4	2.5
106	4	2.5
146	4	2.5
192	4	2.5
175	4	2.5

Papers recommended for IS executives

188 5 5 135 5 5 117 5 3.4	
135 5 5	
5 2 1	
1 1 7	5
35 5 3	
136 4 4	
44 4 4	
22 4 4	
58 4 4	
94 4 4	
95 4 4	
112 4 4	
42 4 4	
17 4 4	
28 4 4	

ives		
Paper ID	Max	Avg
223	4	4
124	4	4
162	4	4
122	4	4
16	4	4
69	4	4
137	4	4
246	4	4
27	4	4
171	4	4
269	4	4
38	4	4
9	4	4
165	4	4

Paper ID	Max	Avg
10	4	4
85	4	4
226	4	4
210	4	4
220	4	3.5
45	4	3.5
167	4	3.5
93	4	2.5
53	4	2.5
145	4	2.5
76	4	2.5
106	4	2.5

Papers recommended for non-IS executives

Paper ID	Max	Avg
44	4	4
22	4	4
42	4	4
17	4	4
28	4	4
223	4	4
124	4	4
122	4	4
16	4	4
246	4	4

Paper ID	Max	Avg
27	4	4
19	4	4
269	4	4
38	4	4
9	4	4
188	4	4
135	4	4
165	4	4
85	4	4
226	4	4

Paper ID	Max	Avg
136	4	3.5
94	4	3.5
106	4	3
93	4	2.5
53	4	2.5
117	4	2.5
145	4	2.5
76	4	2.5
35	4	2.5

Papers recommended for students by coursework

Paper ID	Max	Avg
43	5	5
167	5	3
134	4	4
17	4	4
1	4	4
28	4	4
223	4	4

Paper ID	Max	Avg
124	4	4
122	4	4
69	4	4
188	4	4
165	4	4
85	4	4
226	4	4

Paper ID	Max	Avg
210	4	4
44	4	2.5
33	4	2.5
76	4	2.5
106	4	2.5
35	4	2.5

Papers recommended for Government

apers recommended i		
Paper ID	Max	Avg
3	5	5
163	5	5
10	5	5
28	4	4
223	4	4
122	4	4
16	4	4
69	4	4

ent Paper ID	Max	Avg
153	4	4
246	4	4
200	4	4
269	4	4
9	4	4
188	4	4
135	4	4
165	4	4

Paper ID	Max	Avg
85	4	4
111	4	4
136	4	2.5
245	4	2.5
19	4	2.5
33	4	2.5
167	4	2.5
35	4	2.5