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THE STATE OF THE IS ACADEMIC DISCIPLINE IN PACIFIC ASIA: METHODOLOGICAL LEARNINGS

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ABSTRACT

This is the last in a series of nine papers making up a special issue of *Communications of the AIS* (CAIS) titled "The State of the Information Systems Academic Discipline in Pacific Asia" (IS-in-PA). This paper reports on knowledge gleaned from the conduct of the sub-studies that comprise the IS-in PA project. In particular, there is analysis of the specific research artifacts developed for the individual sub-studies reported in this special edition. It is proposed that the methodological learnings derived from this project will be of benefit in the replication and extension of this project to other regions of the world. The paper addresses a key aim of the IS-in-PA, involving the development and application of a process of evidence collection and review transferable to other studies tracking diffusion of the IS discipline.

Keywords: Information Systems, IS discipline, methodological issues

I. INTRODUCTION

This paper is the last in a series of nine papers making up a special issue of *Communications of the AIS* (CAIS) titled "The State of the Information Systems Academic Discipline in Pacific Asia" (IS-in-PA). This paper reports methodological learnings from the various sub-studies.

A key study aim was to evolve and apply (and pilot "test") a process of evidence collection and review, for future extension and possible replication within the Pacific Asia region and across the other world regions. This was to some extent in attention to past concern expressed (e.g. by Phillip Ein-dor in [Gable 2002]) with the lack of a methodology and indicators for tracking diffusion of the IS discipline. It was posited that the establishment of measures and indicators of the state of IS, and a baseline snapshot of its current state (a rich description), will facilitate tracking of the state and will assist in monitoring the effect of initiatives to promote IS as a discipline. Thus, an overarching aim of the study is to contribute to a general methodology with which to describe and monitor the evolving state of the IS discipline in any region or country.

In the course of the IS-in-PA study, a wide range of research artifacts has been developed. More detailed versions of the artifacts referred to in individual sub-studies are reported here, more detailed than appropriate in the sub-studies themselves. This approach is supportive of the aim to

facilitate replication and extension of the Pacific Asia study to other regions. This paper reports methodological learnings from the various IS-in-PA sub-studies.

II. METHODOLOGICAL LEARNINGS REPORTED

Methodological learnings reported here are of the form: a) instruments; b) processes; and c) insights. Discussion is around the following methodological artifacts: (1) State Case Study Protocol; (2) SWOT Protocol; (3) IS Placement Survey Instrument; (4) Historical Placement of IS Survey Instrument; (5) IS Research Issues Survey Instruments; (6) The ACIS e-Proceedings and EndNote Database; and (7) The MISRC-AIS Faculty Directory - Representatives Hierarchy.

It is acknowledged that the methodological (or research) artifacts reported herein vary in the extent of their validation to date. The overall study was exploratory and descriptive. All have been subject to extensive "face validity" testing. (1) The State Case Study Protocol evolved over the course of seven Australian state/territory case studies and six Pacific Asia state case studies (though mostly in parallel rather than as a succession of learnings); (2) The SWOT Protocol has been applied across two Australian and two Korean universities; (3) The IS Placement Survey Instrument has been applied comprehensively across all Australian and Korean universities; (4) The Historical Placement of IS Survey Instrument has been fully detailed for two Australian and two Korean universities; (5) The IS Research Issues Survey Instrument has been more rigorously validated statistically; (6) The ACIS e-Proceedings and EndNote Database are complete and accessible; and (7) The MISRC-AIS Faculty Directory - Representatives Hierarchy has yet to be instantiated.

Table 1 lists the main methodological artifacts deriving from the study and their sources. Subsequently, each is discussed in terms of: a) detailed description; b) the process of use; c) what worked well; d) what did not; and e) what might be done differently next time. It is acknowledged that the thorough and rigorous validation of any single methodological artifact for repeatability should entail close adherence to a well-documented design science approach [March and Smith 1995]. While attention has been paid to rigor of the design and evaluation of the artifacts, study resource limitations have not allowed as careful and thorough a validation process as would have been ideal.

STATE CASE STUDY – PROTOCOL

Yin [2003] argues for the use of a case study protocol to guide any study employing the case study method. To this end, a state case study protocol was developed for use by study team members (variants evolved across both the IS in Australia (IS-in-Oz) and IS-in-PA studies – see Appendix II).

This case study protocol, the main IS-in-PA (and IS-in-Oz) evidence collection instrument, was intended to improve:

- comparability across the states;
- consistency across the individual case studies; and
- efficiency in the conduct of the case studies, with potential for data gathering and some analysis being delegated to research assistants or other junior researchers.

Yin strongly favours building a protocol around relevant theory. The protocol is underpinned by a framework developed by Ridley [2006], which is based on the theory of the development of disciplines. In practice, the Ridley framework was refined in parallel with the data gathering and analysis for the individual Australian state case studies. Thus, data gathering in most Australian states was guided by a partial version of the final framework, incorporating two main constructs: (1) degree of professionalisation as a discipline and (2) maturity as a scientific field. Both derive from Whitley's theory of scientific change [1984a, 1984b]. The protocol explores the professionalization construct through questions relating to the level of reliance on local

contingencies. Similarly, levels of maturity as a discipline are explored through questions relating to perceptions of IS as a separate identity and questions on uniformity of curriculum content across universities.

Table 1. Methodological Artifacts and Where Used

Research Artifact(s)		Description	Where Used
State Case Study Protocol (Appendix II.)	1	Case study protocol developed to guide evidence collection on both the Australian and Pacific Asia State case studies	Gable et al. [in press]; Gable [2007b]; Chau & Kuan [2007]; Lee & Yoo [2007]; Huff & Lehmann [2007]; Tan & Chan [2007]; Lee & Liang [2007]
SWOT Protocol (Appendix III.)	2	Protocol developed to guide evidence collection on SWOT analyses of the administrative placement of IS in 4 universities in Korea and Australia	Gable, Lee, Kwahk and Green [2007]
IS Placement Survey Instrument (Table 3.)	3	Template table and related instructions employed to survey universities in Australia and Korea on the administrative placement of IS at each	Gable [2007b]; Lee and Yoo [2007]
Historical Placment of IS Survey Instrument (Appendix IV.)	4	Facilitates documentation of name, level and alignment changes to the IS entity across time in a given university	Gable, Lee, Kwahk and Green [2007]
IS Research Issues Survey Instruments (Appendix V. and (Appendix VI.)	5	Two survey instruments to (1) identify (Appendix V) then (2) rank (Appendix VI) key issues facing IS researchers	Gable, Stark and Smyth [2007]
ACIS eProceedings and EndNote Database	6	Developed e-copy of the complete ACIS proceedings since 1991; Also developed a complete EndNote Database	To be included in AIS eLibrary
MISRC-AIS Faculty Directory - Representatives Hierarchy Plan (Appendix VII)	7	Detailed plan for the update and ongoing maintenance of the directory through the establishment of a hierarchy of country- and institution-representatives	IS-in-PA study proposal [Gable 2002]; and IS-in-PA project meeting report, Auckland January 2004

The case study protocol draws on General Systems Theory [Ackoff 1971]. It also embraces principles relating to the relationship between form and function, as explored by people like McFarlan, Nolan, and Norton [1973]. The means by which these concepts are embodied in the case study protocol are outlined in Gable's [2007a] contextual analysis paper in this special edition.

The Evolution of the Case Study Protocol: The case study protocol (Appendix II) represents "the main research mechanism" for the six IS-in-PA case studies reported in this special edition (and for the seven Australian "pilot" case studies) and, thus, some background on its evolution is potentially instructive for researchers wanting to settle on a protocol to guide follow-up case studies in other regions of the world (or elsewhere in PA or replications over time).

In its earliest draft, developed in preparation for the Australian pilot case studies, the case study protocol lacked an explicit theory framework. Instead, it relied solely on the principles of General Systems Theory and of "form influencing function" to guide the data gathering and analysis. Onto this preliminary draft a stronger theory base was added, based on a framework developed by Ridley [2006]. In actuality, the Ridley framework was refined over the course of the Australian study. The framework relates the state of IS to the concept of the development of a discipline. The early versions of the framework relied heavily on Whitley's [1984b] Theory of Scientific Change, emphasizing independence of local contingencies as a significant indicator of discipline maturity, and looking to distinctive terminology and broad status of discipline leaders as other indicators of professionalization and maturity. Later versions considered further dimensions, such as an agreed body of knowledge, in the evaluation of the maturity of IS as a discipline.

The case study protocol employed by the IS-in-PA team was a modified version of the protocol developed for the Australian pilot case studies. However, data gathering by IS-in-PA research team members commenced while the Australian pilot case studies were still in progress. Hence, the IS-in-PA case studies also experienced some variations in versions of the protocol as the Ridley framework continued to evolve.

The Queensland Pilot: To guide the direction of the Australian state case studies, a pilot case was conducted in the Australian state of Queensland. The early version of the case study protocol was followed carefully in data gathering and analysis. In the initial Queensland write-up, additional contextual information was provided (e.g. explanation of the motivation for the single Queensland state study in relation to the larger Australia-wide study and the foreshadowed Pacific-Asia study) to enable the report to stand alone for review and reference purposes. The write-up of the Queensland pilot case study was then made available to Queensland interviewees and to all team members, across the states, for feedback. To the same end, the report of the Queensland study was subsequently made available to the IS-in-PA research team on the team Web site. The approach adopted in the Queensland pilot was endorsed as appropriate for the other Australian states. This pilot approach to the case studies proved an effective tactic, both for the pilot study and the IS-in-PA study.

General Learnings from the Queensland Study: The Queensland case study provided a first trial of the case study protocol established to guide the pilot Australian case studies. In conducting this Queensland study, there was recognition by the researchers of the intention to reflect on the procedures followed and the outcomes achieved; this and the other Australian studies were to inform subsequent, broader studies into the state of the Information Systems discipline.

A useful learning from the Queensland study relates to the approach to data gathering that had been proposed in the study protocol. The intention had been to have interviews with at least one key person from each university in the state as the prime source of data. These interviews were planned to take about one hour each. In the event, arranging face-to-face interviews at two of the Queensland universities proved impractical. For both James Cook University and the Australian Catholic University, telephone interviews were used, followed up by interview notes and other exchanges by e-mail between the researcher and the interviewees.

For the Pacific Asia study and future studies elsewhere, a revised study protocol has been prepared to accommodate telephone interviews. In addition, out of recognition of the large time requirements for interviewing where there are many universities involved in the study, a survey instrument has been prepared as a substitute for each interview. The instrument attempts to provide some of the richness of an interview by minimizing questions seeking specific numerical

responses, in favour of questions teasing out the distinctive characteristics of the university. In recognition of a study environment where, on the other hand, there are very few universities in the study, a guideline for conducting focus groups, based on the standard data gathering framework, was also added to the study protocol.

The use of a theory framework to guide the data gathering and analysis, based on "the emergence of a discipline," proved most helpful to the conduct of the Queensland study. In fact, the framework adopted for the Queensland study was based on an early version of the framework outlined by Ridley [2006]. Progressive refinement of this framework, in light of the experiences in the Queensland study, and other state studies, has been useful for the Pacific Asia study and will prove valuable for similar future studies.

SWOT – PROTOCOL

Of particular interest across the IS-in-PA sub-studies has been the administrative location of the IS discipline group within universities, and its possible implications. This relevance was explored through the conduct of a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis of four universities (see Table 2) as reported in Gable et al. [2007].

SWOT is a framework for analyzing strengths, weaknesses, opportunities and threats [Johnson et al. 1989]. The strengths and weaknesses are based on an internal audit of the organisation. The opportunities and threats relate to environmental factors that need to be taken account of in planning strategic actions. Opportunities represent environmental factors that can be beneficially exploited, while threats need to be considered because of their potential to damage the organization. The origin of SWOT as an analytical technique lies with the growth of strategic planning in the 1960s. SWOT was developed as an attempt to address perceived shortcomings in strategic planning outcomes [Mintzberg 1994]. Specifically, SWOT and its variants [Weihrich 1982; Houben et al. 1999] sought to provide a structured basis for planning strategic action [Bourgeois 1996; Pearce and Robinson 1997].

Ridley [2006] suggests that "social processes" contribute to the development of a discipline; Ridley cites Introna's [1993] view that IS can only claim to be an independent discipline when "status has been conferred by institutional practices ... (including) the ability to form departments, appoint chairs ..." The administrative placement of the IS discipline groups in universities has the capacity to both influence and reflect the mechanisms of control referred to by Ridley.

Seeking to minimize redundant effort and maximize comparability of findings, a simple protocol for the conduct of the SWOT analyses was developed and is included as Appendix III. It is acknowledged that the protocol evolved somewhat across its four executions, Appendix III representing its final form. Figure 1 following summarizes the protocol's contents.

From the SWOT analyses conducted at two universities in Korea and two in Australia (see Table 2), it appeared that there were two main factors related to IS placement that impacted the mechanisms of control referred to by Ridley [2006]. While one of these factors is the matter of whether the IS academic group is located inside or outside a business faculty, the other, equally important issue is the extent of autonomy available to the IS group, whether inside business or not. To maximize data on the interplay of these two factors, inside/outside business, autonomous/non-autonomous, it is desirable that SWOT analyses be conducted at a wide range of universities. Only then can more definitive statements be made about the significance of different placement options for IS academic groups. The SWOT protocol documented in Appendix III can act as a useful guide, and checklist, for researchers seeking to further explore the interplay of these factors relating to the administrative placement in universities of the IS group.

1) Overview of the Case Studies
2) The SWOT Approach
3) The Basis for Case Data Gathering
4) Guidelines for Interviews
   a) Preparation for the Interview
   b) Commencement of Interviews
   c) Recommended Data to Be Gathered from Each Interview
      i) What do you perceive to be Strengths associated with having IS academics located administratively within Business at your university? (as opposed to having IS located in another Faculty).
      ii) What do you perceive to be Weaknesses associated with having IS academics located administratively within Business at your university? (as opposed to having IS located in another Faculty).
      iii) What do you perceive to be External Opportunities associated with having IS academics located administratively within Business at your university? (as opposed to having IS located in another Faculty).
      iv) What do you perceive to be External Threats associated with having IS academics located administratively within Business at your university? (as opposed to having IS located in another Faculty).
      v) Are you able to indicate the changes over time in your university of the location of the IS academic group by filling in the appropriate entries on the table provided?

Figure 1. SWOT Protocol Contents (see Appendix III for full details)

CURRENT LOCATION OF IS - SURVEY INSTRUMENT

While the placement of the IS group in universities can reveal much about the mechanisms of control available to IS academics, university structures are constantly changing. In order to further evaluate the current placement of Information Systems academic groups in universities in Australia, a tabular form (Table 3)[1] was sent to a senior IS academic at each university in Australia, requesting that they "Enter the name of the IS administrative organisational unit (AOU) within your university in the appropriate column under 'Location of Information Systems within the University.' In the same row, also enter the actual names of all higher levels of the university under which the IS unit resides, including the name of your university. Finally, in the right-hand columns under 'Generic Levels within the University' enter the generic level names used at your university." A similar form and procedure were employed by Lee [2007] to document the placement of IS in Korean universities. Again, there is merit in having researchers use this survey instrument to establish the pattern of IS placement in universities in other regions of the world. Results are reported across several papers in the two special issues [see Table 1 above].

Table 2. Rationale for Case Selection

	Administrative Location	
Country	Within Business	Outside Business
Australia	**University of Queensland**	**Queensland University of Technology**
Korea	**Korea University**	**Kookmin University**

[1] includes the example of Queensland University of Technology (QUT)

The efficacy of the pro forma table in the collection of data about IS administrative placement across all universities in Australia and all universities in Korea is a strong endorsement of its potential for use by other researchers in other countries.

Table 3. Current Location of IS – Survey Instrument

	Location of IS within the University				Generic Levels within the University			
Unversity	1st Level Down	2nd Level Down	3rd Level Down	4th Level Down	1st Level Down	2nd Level Down	3rd Level Down	4th Level Down
e.g. QUT	Faculty of IT	School of IS			Faculty	School		

HISTORICAL PLACEMENT OF IS - SURVEY INSTRUMENT

While the IS Placement Survey Instrument described in the preceding section captured the "current" administrative location of IS and was administered comprehensively across all Australian and Korean universities (mainly as part of the SWOT activity), the more demanding form in Appendix IV was administered selectively to the four universities involved in the SWOT Analysis. Table 4 is an example of a form completed at Queensland University of Technology (QUT).

Table 4. Historical Placement of IS at Queensland University of Technology

	Location of IS within the University			Generic Levels within the University		
Year	**1st Level Down**	**2nd Level Down**	**3rd Level Down**	**1st Level Down**	**2nd Level Down**	**3rd Level Down**
2005	Faculty of Information Technology	School of Information Systems		Faculty	School	
⋮						
1989	Faculty of Information Technology	School of Information Systems		Faculty	School	
1988						
1987	School of Computing Studies	Department of Information Systems		School	Department	Section
⋮						
1983	School of Computing Studies	(No Department designated)	Business Computing Section	School	Department	Section
⋮						
1975	School of Business Studies	Department of Accountancy	Business Computing Section	School	Department	Section
⋮						
1972	School of Business Studies	Department of Management	Data Processing Group	School	Department	Group

Changes over time in the administrative placement of the IS academic group in each of the two Australian universities and the two Korean universities studied in the SWOT analyses provided useful insights into changes in the levels of autonomy and control. More widespread data gathering on the history of IS placement in universities across a geographical region offers the basis for making fruitful analyses of changes in one important indicator of the state of the IS academic discipline. The survey instrument shown in Table 4 has been demonstrated as effective in gathering this historical data.

Early, grand intentions to administer this survey extensively across universities in Australia were quickly dashed. Accurate and comprehensive completion of the form requires long-term recollection of changes that are unlikely to be documented in one place. While there are universities at which a long-standing member of the IS group has complete recollection, reconstruction of such details is more often likely to require multiple interviews and careful probing and cross-checking.

In practical terms, the completion of the table is a relatively time-consuming task even when people with the requisite knowledge are readily available. This has proved to be a handicap in the application of the survey instrument and one that other researchers should take account of. The potential value of the data that can be collected should serve as the counterpoint for this shortcoming.

IS RESEARCH ISSUES - SURVEY INSTRUMENT

[Gable, Stark, and Smyth 2007][2] report results of an international study of the key issues facing Information Systems researchers. That sub-study, employing a variant of the Delphi method, entailed two surveys to first identify (Appendix V.) then rank (Appendix VI.) the issues. Though the vast majority of responses were to the Web-versions of the two instruments, responses were also received as e-mail attachments (Word version) and hardcopy.

Survey results identified a consistent and unified group of issues facing most researchers surveyed, regardless of location or research orientation. The results suggest that a reliable and valid instrument is available to measure key issues facing IS researchers. Further work to broaden the relevance to all regions is suggested.

THE ACIS E-PROCEEDINGS AND ENDNOTE DATABASE

Two research artifacts deriving from the ACIS Archival Analysis reported in Gable [2007] are: (1) electronic copy of the full set of ACIS proceedings, and (2) and EndNote database of those proceedings. Special thanks to Karen Stark, whose perception of the value from these deliverables, and whose dedicated efforts enabled the task to be completed. The e-copies of the proceedings, together with the EndNote database established, appear to offer an excellent basis for ongoing archival research.

ISWORLD FACULTY DIRECTORY – REPRESENTATIVES HIERARCHY[3]

From the outset, the value, both long-term and to the study, from a current and complete worldwide directory of IS academics was clear. Thus, one of the originally proposed sub-studies (in the original IS-in-PA study proposal to AIS- [Gable, 2002]) was an update and archival analysis of the MISRC-AIS Faculty Directory data at http://www.MISRC-AIS Faculty Directory.org/ (often referred to as the "ISWorld Net Faculty Directory"). Though carefully documented early on[4], for a range of reasons this sub-study was not further pursued within the IS-in-PA study. It is, regardless, reported herein as a task highly worthy of attention.

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[2] Preliminary results of that sub-study were presented at this conference, the intention being to publish more comprehensive results in this special issue of CAIS. That analysis, though advanced, was not yet ready by the team deadline for submission of the special issue to CAIS.

[3] It is believed that progress on this or a similar or overlapping initiative may have been achieved since the original proposal to AIS [Gable 2002]. Ideas presented in this section are regardless believed usefully documented herein.

[4] Detailed notes were conveyed April 2005 to Ephraim McLean, Executive Director AIS.

It was suggested that:

Various methods will be employed to maximize appropriate representation in the online directory, and to insure contents are current and accurate. Once the directory database has been updated, these data will be reviewed for possible descriptive and comparative value to the aims to the overall study. Sample activities here may include:

- *Execute mass promotion of MISRC-AIS Faculty Directory to the PA*
- *Analyze demographic data subsequently available in MISRC-AIS Faculty Directory (Descriptive statistics on PA and other regions; Comparative analysis of PA vs other regions)*

A key objective here is to improve the currency and completeness of the MISRC-AIS Faculty Directory for conduct of the Delphi sub-study. [Gable, 2002]

Specific benefits suggested from such a holistic update of the directory data were:

- in its own right, as a means of updating and improving the online directory;
- as a source of evidence for archival analysis;
- for establishing a network of participants in the multi-country case study;
- as a possible "embedded" survey within each country case study; and
- as a means of insuring as comprehensive and accurate a database of contacts for the purposes of the research issues study.

In concluding this section, it is noted that PACIS has, from its inception, employed a committee of country representatives (CRs) to advise PACIS executive and promote PACIS in their respective countries. This committee had fallen somewhat into disuse, and, with recent adoption of the new PACIS charter, no longer formally exists. PACIS executive will, regardless, I expect, be interested in employing such an AIS managed committee of CRs to again promote PACIS in the region. Also, the CRs may be appropriate people to periodically invite to PACIS Executive to represent country views on various matters, including hosting PACIS in future years.

III. CONCLUSION

LIMITATIONS

Though much effort has been expended and much data gathered, the study team has, of necessity, had to be highly selective. Other kinds of evidence, beyond extension and replication of data collections from the artifacts described previously, that would usefully inform ongoing discussion on the evolution of the IS academic discipline in Pacific Asia and other world regions, had been intended.

The overall study, however, has run far longer than originally anticipated, with final closure extending over several months. Though integrative analysis across the various sub-studies was never planned, there was always a hope that this would follow naturally, almost as a by-product of the various efforts. This has not transpired, and time has run out. Some effort has gone into the development of a draft cross-case analysis or meta-analysis (across all sub-studies) protocol. Further effort is required here; perhaps a good starting point for the next team to grab the baton.

POSSIBLE FUTURE RESEARCH

As stated at the outset, a main aim of the IS-in-PA and IS-in-Oz studies has been to accumulate knowledge about the things that best promoted insight and understanding and those that tended to inhibit or restrict such insight and understanding in the course of the projects. Such knowledge has the capacity to smooth the path for others seeking to examine the state of IS in other places or at later times. With this in mind, it is hoped that the existence of the attached instruments and recording of related experience, will encourage ongoing follow-on research into the state of Information Systems around the world. Some specific research projects include:

- Extension and further validation of approaches employed;
- Replication of these sub-studies across time in the same countries/states/territories and evaluation of change;
- Replication of the sub-studies in further countries/states/territories of the Pacific Asia region;
- Replication of the sub-studies in further countries/states/territories of the other world regions;
- Administration of entirely new evidence collections (as listed in the section preceding) and related analysis across the countries/states/territories of any or all of the world regions;
- More intensive attention to meta-analysis across the various evidence collections.

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Editor's Note: The following reference list contains hyperlinks to World Wide Web pages. Readers who have the ability to access the Web directly from their word processor or are reading the paper on the Web, can gain direct access to these linked references. Readers are warned, however, that:
1. These links existed as of the date of publication but are not guaranteed to be working thereafter.
2. The contents of Web pages may change over time. Where version information is provided in the References, different versions may not contain the information or the conclusions referenced.
3. The author(s) of the Web pages, not AIS, is (are) responsible for the accuracy of their content.
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APPENDIX I. THE OVERARCHING STUDY: THE STATE OF THE INFORMATION SYSTEMS ACADEMIC DISCIPLINE IN PACIFIC ASIA

Figure A-1 depicts the main components of the study "The State of the Information Systems Academic Discipline in Pacific Asia." The Pacific Asia study is motivated from a recognition that Information Systems as an academic discipline has evolved differentially around the world. The genesis of the study was a panel of the 6th Pacific Asia Conference on Information Systems (PACIS'02), Tokyo, Japan, ultimately resulting in formal project commencement in 2004 with AIS endorsement and seed funding.

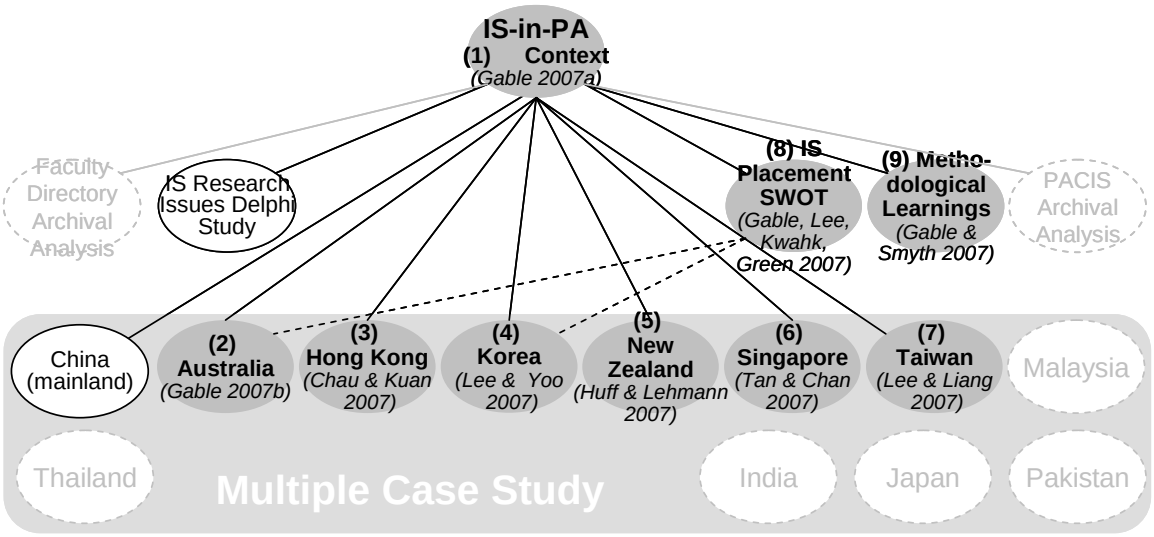

Figure A-1. The IS in Pacific Asia Region Sub-Studies

Principal of the several related sub-studies is a series of case studies across the States[5] of Pacific Asia. The overall study has from the outset been designed and executed with the expectation that it would be extended and repeated over time. It was decided early on to restrict the first iteration of the study to those areas in the region where IS is relatively more visible internationally – Australia, Hong Kong (China), Korea, New Zealand, Singapore, and Taiwan.

Shaded ovals in Figure A-1 represent those components completed in the first execution, with results reported in this special issue of CAIS. Unshaded ovals represent components in progress (i.e. Mainland China case study), and dashed ovals represent components soon to commence.

The largely exploratory and descriptive state case studies employed a common research framework [Ridley 2006]. The framework considers the current and past state of IS in Pacific Asia universities from the perspective of the development of a discipline. The framework was guided by Whitley's Theory of Scientific Change [1984a, 1984b]. It suggests that there is an inverse relationship between the impact of local contingencies and a discipline's degree of professionalism and maturity.

Given the descriptive and exploratory character of the overall study, the team harboured no illusions regarding the ultimate completeness of issues to be identified, related evidence to be gathered, and analyses to be conducted. It was acknowledged that the study offers a mere starting point for ongoing monitoring of the state of IS in the Pacific Asia region. Regardless, efforts were made to achieve some level of representativeness of the evidence and perspectives reported: (1) Selection of the study team – sought region-wide representation. This suggested

[5] The term "state" is used to refer to each of the national entities studied.

state-based case reports. Senior and well known IS academics were approached. (2) Interviewees received an early draft of the state report in which their views were recounted. On the basis of feedback, changes were implemented by the state teams. (3) Selected "within state" local experts were sent a copy of the draft state report for review, aims being to: minimize potential adverse reaction from perceived misrepresentation, try to ensure the report is as representative of the state as possible, enrich the report with further insights, and ensure the process of peer-review results in papers of strong academic standard. (4) All authors on all papers of the special issue reviewed the complete draft special issue.

APPENDIX II. – A MULTI-STATE CASE STUDY PROTOCOL

THE STATE OF THE IS ACADEMIC DISCIPLINE IN THE PACIFIC-ASIA REGION

Overview of the Multiple Case Study - The project involves a study of the Information Systems academic discipline in several states of the Pacific-Asia region. From individual case studies, and resultant reports, in each of the selected states of the region, a multiple case study report will be prepared to be published in *Communications of the Association of Information Systems* (CAIS). This research project builds on a preliminary, similar study across Australia.

The Study Team

Australia	Guy Gable		Korea	Jae Nam Lee	Seung-Weon Yoo
Singapore	Bernard Tan	Taizan Chan	New Zealand	Hans Lehmann	Sid Huff
Hong Kong	Patrick Chau	Kevin Kuan	Taiwan	Chin-Chang Lee	Ting-Peng Liang

Purpose of the Case Study Protocol - Since the individual state case studies will be undertaken by separate researchers, this protocol seeks to be somewhat more detailed than might otherwise be necessary. It is hoped that this protocol will facilitate some:

- comparability across the states;
- consistency across the individual case studies; and
- efficiency in the conduct of the case studies, with potential for data gathering and some analysis being delegated to research assistants or other junior researchers.

The protocol draws heavily on the approach suggested by Yin [2003], incorporating some of the ideas of Walsham [1995]. In particular, this protocol seeks an interpretive approach directed at what Walsham calls "rich insight."

Type of Case Study - Each case study should be viewed as an opportunity to collect and record perceptions of the interviewees (as well as other forms of evidence). In keeping with an interpretive slant, subjectivity on the part of both the interviewees and the researchers is accepted. The case studies are to be descriptive and to focus on perceived *points of differentiation* across universities within a state (other, more readily comparable data may be available from existing surveys). This protocol is underpinned by a framework based on the theory of "development of disciplines" as articulated in a draft paper by Gail Ridley of University of Tasmania. The framework is used to guide data collection and analysis and provides a theoretical context for a study of the nature and change of IS in the Pacific-Asia region. It is expected that a historical perspective on the evolution of IS in each university will inform the current state of IS in the university and across the state.

Background to the Current Study - This Pacific-Asia multi-case study (AIS-in-PAR) follows on from an earlier pilot study across Australia. This AIS-in-PAR study seeks to draw upon, and

complement, other recent, or planned, studies of the state of the IS discipline, notably those of Avgerou et al. [1999].

The AIS-in-PAR study is motivated from a recognition that Information Systems (IS) as an academic discipline is at varying stages of evolution across the states of the Pacific Asia Region (PAR), with wide variation. Its evolutionary path, too, has been highly varied, resulting in IS having more or less of a definable existence as a separate discipline. IS activity in some states of the PAR is under-represented in the world IS community - because it is not recognised or because it does not exist? A further more general problem is the lack of a methodology and indicators for tracking diffusion of the IS discipline and AIS around the world. Improved understanding of the unique aspects of IS in the states of the PAR will enable more targeted and effective AIS initiatives to grow and enhance the discipline in the region. The establishment of measures and indicators of the state of IS, and a baseline snapshot of its current state, will facilitate tracking of the state and monitoring of the effect of initiatives to effect improvement.

Theoretical Framework - There is a body of knowledge that suggests that many of the characteristics of IS are consistent with those observed across emerging disciplines in the early stages of their development. For example, in the early evolution of management as a discipline, some of the characteristics that manifested themselves at that time have been seen more recently in the development of IS. Some of these characteristics include:

- A heavy reliance on reference disciplines
- A paucity of theory specific to the discipline
- A perceived lower status than for established disciplines, leading to the adoption of methods from the higher status disciplines
- Limited numbers of textbooks that review the discipline
- Poor definition of the boundaries of study
- Incorporation organisationally as a sub-set of an established discipline.

The theoretical framework proposed for this study is based on two constructs: (1) degree of professionalisation as a discipline and (2) maturity as a scientific field. Both are derived from Whitley's theory of scientific change [1984a, 1984b].

The first construct concerns the degree of "professionalisation" of the discipline, which is expected to increase as the impact of local contingencies decreases. Where a discipline is not highly professionalised, local contingencies such as political pressures, have high impact. Consequently, the degree of professionalisation of IS can be evidenced by the extent of variation in the nature of its research among the states of the Pacific-Asia region over time and at present.

The second construct has been derived from Whitley's three conditions for the establishment of a distinct scientific field:

1. Scientific reputations both become socially prestigious and "control critical rewards" i.e. those in the discipline have the potential for prestige and power through prominence in that discipline;
2. Standards of research competence and skills become established;
3. A unique symbol system is developed that allows the exclusion of outsiders and unambiguous communication between initiates within the discipline.

Approach to Data Gathering - Based in evidence deriving from interviews conducted, and supplemented by documentary and other archival evidence, it is expected that you will ultimately

develop a rich description of the state of IS across your state. It is intended that interviews be used as the principal form of data gathering; where available, existing documentary and archival material should be gathered to supplement the interview data and to provide some triangulation of observations. The interviews are to be semi-structured, with *emphasis on factors relating to the emergence of IS, broad perceptions of the interviewee on the state of IS* in his/her university, *points of differentiation*, and *distinctive features* of IS in that state. You should *seek answers to the broad themes* outlined below, using the supplementary questions only as deemed appropriate. Each interview should have duration of *about one hour*. Where face-to-face interviews are impractical, telephone interviews will suffice. They will normally be of shorter duration (30 minutes plus) than the face-to-face interviews.

Ethical Considerations - You should ensure that all interviews are conducted with due concern for the ethical standards that guide research procedures at QUT and at your university. Prior to commencement of the interview, you should seek from interviewees their written approval to participate in a recorded interview. You should retain one copy of the signed consent, to be stored with the interview recording. The recorded interview need not be transcribed. The recording should be referenced by the interviewer to assist in the preparation of summary interview notes. Ethical clearance for the study will be sought from QUT's Human Research Ethics Committee. Additionally, ethical clearance for all study team members should also be sought through your own university's human research ethics group.[6]

Preparation for the Interview - Prospective interviewees should be selected from academics within each (if possible) university running IS courses in your designated state. A minimum of one interviewee per institution is recommended where this is practical. In states where there are many universities, a feasible approach to data gathering might involve just three or four "full" interviews supported by shorter interviews in the other universities. Where all universities cannot be canvassed, some appropriate logic for selecting a sub-set must be applied. Where resources permit, it will be useful to interview more than one person from each university as a means of gaining a more balanced perspective. In states with few universities, one-to-one interviews may be better replaced by focus groups.

Commencement of Interviews

1) Start the interview by introducing yourself and explaining the purpose of the interview viz. to gather data on the state of IS in universities in the state. Emphasise we are particularly seeking broad perceptions on points of differentiation in the approach to IS in the interviewee's university.

2) Outline our agreed definition of Information Systems (see below), as distinct from other ICT disciplines such as computer science/computer engineering.

An objective of the study is to describe the current configuration of IS teaching at universities in each state. We recognise that IS is uniquely represented in curriculum and research at most universities. The original 1994 Asia Pacific Directory of Information Systems Researchers (APDISR) observed "The question, 'Who is an Information Systems academic?' is not easily answered." The APDISR goes on to "loosely define an IS researcher as 'one concerned with analysis, design, implementation, evaluation, and management of information systems, from a managerial or user perspective, rather than from a computer science perspective'." And though this definition, in hindsight now appears narrow, it is noted that the 1994 directory included a diverse array of IS researchers from 10 departments across six faculties of the National University of Singapore alone (it is acknowledged that the NUS was canvassed more thoroughly and

[6] Note that the team members will not be indemnified by any ethics clearance from QUT's UHREC, though any clearance from QUT may smooth the process for individuals to get clearance from their own universities.

broadly than possibly any other institution in that directory). Thus, you, in consultation with your interviewees, will need to explore/decide what organisational entities, what parts of the curriculum, and what individuals you consider to be Information Systems for the purposes of this study.

Recommended Data to Be Gathered from Each Interview - Note that rich data is to be sought as indicated by the bold *italicised headings* below. The specific questions may be used by the interviewer to elicit the sort of data that might be useful if this is overlooked by the interviewee. *It is not vital that each question below should be asked. We acknowledge that seeking detailed and comprehensive answers to each question would be unduly onerous, and accept that the individual State-teams will likely have differing emphases in their data collection and interpretation. We feel this will give richness to the individual reports without unduly affecting comparability. Where interviewees can access relevant and useful statistical data outside the interviews, these matters can be considered by the interviewer without being sought during the interview. However, you might confirm any such statistical data with interviewees, either at the time of the interview or when interview notes are sent to the interviewee for checking.*

Get Identifying Data and Scope of Relevant Knowledge

1) Confirm the name of the interviewee; the institution the interviewee represents; and the position of the interviewee in that institution.

2) Explain that you are seeking information about both IS courses and IS research. Check whether the interviewee is comfortable answering questions about each area in his/her institution. Where the interviewee has knowledge principally with regard to either research or teaching only, you should try to get the name of, and introduction to, a suitable person to subsequently cover the other area.

Get a Picture of the Relative Size of the IS Presence at the University and its Administrative Placement

3) How many people teach IS subjects at the institution?

4) Which administrative groupings (e.g. Business Faculty; School of IT;…) do the IS teaching staff belong to? Outline how this has evolved over the years.

5) What is the total number of students in your institution? (What is the full-time equivalent?)

6) What are the undergraduate and post-graduate IS courses offered at your institution (separate coursework courses from research-based courses)?

7) How many students are currently enrolled in each of the IS courses just referred to?

Get a Feeling for the Extent to Which IS at the University Is Impacted by Local Contingencies

8) Discuss the extent to which IS curriculum and research at your university is affected by local factors (e.g. local industry, political pressures).

9) Do you think that IS is any more or less affected by local factors than other disciplines at your university?

Get a Feeling for the Extent to Which IS Is Identified as a Separate Field at the University

10) Discuss the extent to which IS has a separate identity at your university.

11) What factors distinguish IS subjects and research from those that would be found in business and computer science at your university?

12) Do you feel that your position as an IS academic give you greater or lesser status in your university relative to your colleagues in business and computer science?

13) Is there anything about the terminology of IS at your university that would be foreign/unfamiliar to your business and computer science colleagues at the university?

Get a Picture of the Distinctive Features of the IS Curriculum at the University

14) Discuss the extent to which IS curriculum and research at your university is affected by local factors (e.g. local industry, political pressures).

15) Discuss the place of service teaching of IS at your institution, as opposed to teaching in IS courses.

16) What do you see as distinctive features of IS as taught at your institution (if any)? Themes?

17) How do you see your institution's IS courses in relation to those offered by other institutions in your state? Similar in emphasis? Complementary? Sharply different?

18) Are there particular tools, techniques, technologies used in the teaching of IS at your university that are distinctive?

19) What proportion of IS students at your institution are taught by "Distance Education"? Discuss the form/s of distance education used and where most of these distance students are located (locally, overseas). Is your university distinctive in its approach to IS distance education?

20) To what extent have enrolments in IS at your institution been affected by the recent downturn in ICT employment?

21) What do you see as the main issues relating to the teaching of IS in your institution?

22) What do you see as the main issues related to the teaching of IS in your state?

23) What do you see as distinctive features of the teaching of IS in your state?

24) What changes are planned for teaching/curriculum in IS in your institution over the next three years?

Get a Picture of the Distinctive Features of IS Research at the University

25) How would you rate the average level of research output across the IS staff in your institution? Discuss your assessment.

26) What is the balance between IS research and IS teaching in your institution, with respect to incentives for each?

27) How is IS research primarily funded in your institution?

28) What are the main areas of focus in IS research in your institution?

29) What are the main IS research methods used in your institution?

30) How many students are currently enrolled in IS PhDs in your institution? Has there been a decrease or increase in these numbers over the past three years?

31) To what extent do you think that the emphasis of research in your institution is consistent with IS research themes in other institutions in your state?

32) Discuss conference attendance by IS researchers in your institution: On average, how many conferences a year would your IS researchers attend? Which conferences are most popular with your IS researchers, and why?

33) What local factors impact IS research in your state?

34) What do you see as the main issues related to IS research in your institution?

35) What do you see as the main issues related to IS research in your state?

36) What do you see as distinctive features of IS research in your state?

37) What changes are planned for IS research in your institution over the next three years? Changes of focus? Changes in funding? Changes in research group structure? …

Get Interviewee's Perception of the Characteristics of IS in Universities in That State

38) What general information can you provide about IS teaching and research across tertiary education institutions in your state?

Get Interviewee's Perception of the Key People Who Have Impacted IS in Universities in That State

39) Can you name some significant individuals (from politicians, bureaucrats, academics, members of professional societies, members of advisory committees) who have had significant impact on IS in your university? Outline the nature of the impact in each case.

40) Can you give names of suitable people from other institutions in your state who might be usefully interviewed for this study?

Conclude the interview, with thanks to the interviewee. Give a commitment on when the interview notes will be made available to the interviewee for checking. Seek permission for access to the interviewee again for any incidental follow-up.

APPENDIX III. - A SWOT PROTOCOL TO EVALUATE IMPACT OF ADMINISTRATIVE PLACEMENT OF THE IS ACADEMIC GROUP

Overview of the SWOT Studies - Initially, four SWOT studies are planned. The intention is to report on the relative strengths, weaknesses, opportunities and threats associated with differing administrative placement of the Information Systems academic group within universities. In two cases, Korea University, Korea and University of Queensland, Australia, the IS group is located within the Business faculty; in the other two, Kookmin University, Korea and Queensland University of Technology (QUT), Australia, the IS academics are administratively located in a separate School of Information Systems within a Faculty of Information Technology. The SWOT analytical planning technique has been adapted to support data gathering and analysis for the case studies.

The SWOT Approach - SWOT is a framework for analysing strengths, weaknesses, opportunities and threats. The strengths and weaknesses are based on an internal audit of the organization. The opportunities and threats relate to environmental factors that need to be taken account of in planning strategic actions. Opportunities represent environmental factors that can be beneficially exploited, while threats need to be considered because of their potential to damage the organization.

The Basis for Case Data Gathering - Prospective interviewees should be selected from academics who are perceived to have a deep understanding of the organization (to be able to identify its strengths and weaknesses) as well as a strong understanding of the current

environment (to be able to discern external opportunities and threats). It is anticipated that the interviewees will be IS academics but there may be value in supplementing such interviews with one or more interviews of senior staff within the "home" faculty but outside IS.

Commencement of Interviews - Start the interview by introducing yourself and explaining the purpose of the interview viz. to gather data on the interviewee's perceptions of strengths, weaknesses, opportunities and threats associated with the administrative placement of IS at the university. Clarify that the interviewee is a willing participant in the interview and agreeable to recording of the interview. Indicate that the interviewee will be provided with a summary of the interview for review and correction.

Recommended Data to Be Gathered from Each Interview - Note that rich data is to be sought as indicated by the four questions below, corresponding to the four components: Strengths, Weaknesses, Opportunities and Threats.

1. What do you perceive to be strengths associated with having IS academics located administratively within business/outside business (choose the appropriate situation) at your university?

Emphasise that you want to look at strengths from the perspective of "within your university."

Allow the interviewee adequate time to nominate and discuss his/her perceptions of the strengths before offering any of the following supplementary questions.

1a. Do you believe that his placement provides IS with better protection in times of economic downturns?

1b. Does the placement facilitate good collaboration with business academics?

1c. Does the placement facilitate beneficial business content in the IS curriculum?

1d. Does the placement provide improved internal competitive strength for the IS group because of the power of business?

2. What do you perceive to be weaknesses associated with having IS academics located administratively within/outside business at your university?

Emphasise that you want to look at weaknesses from the perspective of "within your university."

2a. Does the placement limit autonomy in decision making by IS staff?

2b. Does the placement limit control by IS staff over IS curriculum?

2c. Does the placement limit control by IS staff over their research focus?

2d. Does the placement result in lower personal morale among IS staff?

2e. Does the placement limit the capacity of IS staff to make effective allocation of resources?

2f. Does placement increase difficulty in collaboration with Other ICT academics?

2g. Does the placement inhibit informed selection of students?

3. What do you perceive to be external opportunities associated with having IS academics located administratively within/outside business at your university?

3a. Does the placement result in the capacity for IS staff to continue to thrive during downturns in IT?

3b. Does the placement result in greater immunity to obsolescence of hardware and software, because of the greater resources of business?

3c. Does the placement allow IS academics to accommodate the perceived commoditisation of IT by easily integrating with business?

4. What do you perceive to be external threats associated with having IS academics located administratively within/outside business at your university?

4a. Does the placement within business inhibit promotion of IS as a distinct discipline?

4b. Does the placement result in IS having reduced visibility to external entities?

4c. Does the placement limit access to advisors from industry?

4d. Does the placement limit the ability for IS staff to enhance their international reputations?

APPENDIX IV. HISTORICAL PLACEMENT OF IS SURVEY INSTRUMENT

		Location of Information Systems				Generic Levels			
Year	Institution	1st Level Down	2nd Level Down	3rd Level Down	4th Level Down	1st Level Down	2nd Level Down	3rd Level Down	4th Level Down
2005									
2004									
2003									
2002									
2001									
2000									
1999									
1998									
1997									
1996									
1995									
1994									
1993									
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1981									
1980									
1979									
1978									
1977									
1976									
1975									

INSTRUCTIONS: We have indicated above what we believe to be the current placement of IS within your Institution (please feel free to make corrections).

(1) Starting with the first year of the existence of IS as an academic discipline at your institution (we realise that making this assessment may require some judgement and subjectivity - feel free to include your comments in the far right column), please enter the name of that IS organisational unit in the appropriate column under 'location of information systems'. In the same row, please also enter (to the left) the actual names of all higher levels of the University under which the IS unit resided. Finally, in the righthand columns (Generic levels), please enter the generic level names used at your institution in that year. These may include names like Faculty, School, Division ... or N/A meaning that the IS group did not represent any formal entity.

(2) NEXT - working forward in time (up the table), please complete a row of the table in each year that there was a name, level or affiliation change (e.g. lateral move, or married to a new organisational area) to the IS unit (feel free to include your comments in the far right column). If at some stage IS split into more than one unit at your institution, please follow the history of the unit with which you are most familiar (i.e. with which you are affiliated). Where a split did occur, please indicate this in the comments field. Please also record instances (enter a row) where the IS unit name and level may not have changed, but relevant changes have occurred higher up the organisation (e.g. a faculty name change).

APPENDIX V. IS RESEARCH ISSUES

ROUND 1 SURVEY INSTRUMENT

Association for Information Systems

Major Issues Facing Information Systems Researchers

(a study of "The State of the IS Academic Discipline")

Introduction: We are amidst a period of much turmoil in Information Systems Academe worldwide (e.g. downturn in student numbers, increased competition for research funding), yet there has been little study of the difficulties faced by Information Systems Researchers. This survey forms the first round of a Delphi-like study being conducted by the Association for Information Systems (AIS). We seek your views on issues you face as an Information Systems Researcher (not the problems/questions you are researching, but rather the issues or difficulties you face in pursuing IS research). It is expected that results of the study will assist AIS and the global community of information systems researchers to better understand key areas of concern (and potential).

Purpose of the Study: We seek your views on issues you face as an Information Systems Researcher. It is expected that results of the study will assist AIS and the global community of information systems researchers to better understand key areas of concern.

Conduct of the Study: The study involves two main survey rounds. The research team would like to thank you for participating in this 1st Round, a brain storming exercise aimed at inventorying the issues affecting you as an Information Systems Researcher. In the 2nd round, we will seek your views on the relative importance of a summary set of issues synthesized from the issues received from respondents in this 1st Round survey. Following the study, all respondents will receive a copy of study results.

Confidentiality: Detailed results of the survey will be confidential to Centre for Information Technology Innovation (CITI), Queensland University of Technology (QUT). No names are entered into the CITI database. Once received, respondents are assigned a sequential number and findings are never attributed to any individual. Only aggregated results are reported. Neither AIS nor any other group will receive a copy of the study database. If you have any concerns regarding the ethical conduct of this research, you can contact the Secretary of the Queensland University of Technology's Human Research Ethics Committee, Ms Shane Forrest on (07) 3864 1785 or email s.forrest@qut.edu.au

All respondents to this survey will receive a full report of the study findings.

General Instructions for Completing and Submitting your Survey Response: It will take you approximately 10-15 minutes to complete this survey. Please provide as many issues as possible and submit your completed response by ????. If you have any questions concerning the survey approach or intent, please do not hesitate to contact Guy Gable at g.gable@qut.edu.au If you have any questions concerning survey technicalities, please contact Jason Kennelly at ais-issues@qut.edu.au

Demographic Data: This is a confidential, non-anonymous survey. For data analysis and quality purposes, the Centre for Information Technology Innovation (CITI) at Queensland University of Technology requires the following demographic data. Respondents are assigned a sequential number and no names will be entered to the study database.

* Denotes a Mandatory Field

Name*: University*:

Country*: E-mail Address*:

Organisational Area* (e.g.: School/Research Group):

Research Issues: We recognise the breadth of the question and request that you respond as regards those issues most relevant to your situation. Please enter as many issues as you can (in any order) answering the question below [max 20 issues].

What are the Major Issues you are facing as an Information Systems Researcher?

Issue 1* (Max = 1000 Characters): _____

Issue ? _____

APPENDIX VI. IS RESEARCH ISSUES
ROUND 2 SURVEY INSTRUMENT

Association for Information Systems

NOTE: This survey is being administered as widely as possible with the aim of reaching as many IS researchers as possible, regardless of affiliation.

Major Issues Facing Information Systems Researchers

ROUND 2

(A study of "The State of the IS Academic Discipline")

Introduction: We are amidst a period of much turmoil in Information Systems Academe worldwide, yet there has been little study of the challenges faced by Information Systems Researchers. This survey forms the 2nd round of a study being conducted by the Association for Information Systems (AIS). **(Note that a sister-study focusing on teaching and curriculum is scheduled).**

… is a concern for me as an IS Researcher!

Purpose of the Study: We seek your views on issues you face as an Information Systems Researcher. It is expected that results of the study will assist AIS and the global community of Information Systems researchers to better understand key areas of concern

Conduct of the Study: The study involves two main survey rounds. **The research team would like to thank those who participated in the 1st round,** a brainstorming exercise aimed at inventorying the issues affecting you as an Information Systems Researcher. In this the 2nd round, we seek your views on the relative importance of a summary set of 56 issues synthesised from over 1200 issues received from respondents in Round 1.

Confidentiality: Detailed survey data will be confidential to the study team at IT Professional Services (ITPS) Research Program, Queensland University of Technology (QUT). No names are entered into the study database. Once received, respondents are assigned a sequential number and findings are never attributed to any individual. Only aggregated results are reported. Neither AIS nor any other group will receive a copy of the detailed study database. If you have any concerns regarding the ethical conduct of this research, you can contact the Secretary of the Queensland University of Technology's Human Research Ethics Committee, Ms Susan Keech on (07) 3864 1785 or e-mail s.keech@qut.edu.au

All respondents to this survey
will receive a full report of the study findings.

*Please click here to indicate your understanding of and agreement to the above, and to continue with the survey. ☐

SECTION ONE: DEMOGRAPHICS

This is a confidential, non-anonymous survey. The following data is required for data analysis and quality purposes. Respondents are assigned a sequential number and no names will be entered to the study database.

* Denotes a Mandatory Field

*Name:

*Country:

*University:

*Your Organisational Unit:

*Faculty/School Type: ☐Business, ☐Science, ☐Engineering, ☐InfoTech, ☐Other

If 'Other' please specify:

*E-mail Address:

*Research Experience: ☐ Early-career, ☐Experienced, ☐Established

*Year PhD Acquired (or Year expected. E.g. 2007); NA=not applicable:

*First Language: ☐ English, ☐Other

*Written English Proficiency: ☐ OK, ☐Good, ☐ Proficient

Member Association for Information Systems (AIS)? ☐Yes, ☐No

Other Association(s):

Number of years you have been an Academic:

Number of IS Researchers in your organisational unit: ☐ 1(yourself), ☐ 2-5, ☐ more than 5

Researchers and academics have competing demands on their time. Divide 100 points among the four demands in the table below, first to indicate how you spend your working hours Now; and second, to indicate how you would Prefer to spend your working hours.

		Now	Prefer
Administration/Management	1		
Teaching	2		
Research	3		
(e.g. reviewing, conference organisation) Service	4		
		100%	100%

Compared to most other Universities, my organ-sation places relatively greater emphasis on …	**Rigour**	**1** ☐	**2** ☐	**3** ☐	**4** ☐	**5** ☐	**6** ☐	**7** ☐	**Relevance**
Compared to most other universities, my organ-sation places relatively greater emphasis on …	**Teaching**	**1** ☐	**2** ☐	**3** ☐	**4** ☐	**5** ☐	**6** ☐	**7** ☐	**Research**

SECTION TWO: WEIGHTS SURVEY

The following list of 56 issues has been synthesized from over 1200 issues received from respondents in the 1st round survey in response to the question …

What are the major issues that concern you as an Information Systems Researcher?

Please indicate your perception of the issue by selecting a SINGLE checkbox number for EACH issue.

It is acknowledged that some of the issues may appear quite broad. This was necessary to contain the length of the survey instrument.

	Issue		Strongly Disagree			Neutral			Strongly Agree
1	Keeping up with the literature in all areas relevant to my IS research interests …	*…is a concern for me as an IS Researcher*	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐

1	Keeping up with the literature in all areas relevant to my IS research interests …
2	The tendency of IS research to focus on the latest fad rather than on enduring research questions …
3	Getting access to the data needed for research (e.g. organizations, individuals, documents, etc.) …
4	Maintaining a work/life balance …
5	Lack of synergy between what I teach and what I research …
6	Heavy teaching demands …
7	Establishing and maintaining collaborative relationships with industry partners …
8	The increasing number of IS researchers competing to publish in too few top tier outlets …
9	The lack of relevance of much IS research ...
10	Obtaining research funding …
11	Regional differences in what is regarded as appropriate IS research …
12	My institution's research culture ….
13	Keeping up with rapid changes in the ICT industry…
14	Fairly sharing the benefits of research with industry research partners …

	Issue	Strongly Disagree		Neutral		Strongly Agree
15	Publishing interdisciplinary work …					
16	Too few opportunities for interaction with other IS researchers …					
17	IS research tending to follow rather than lead practice …					
18	Pressure to publish …					
19	Inadequate acceptance of qualitative research …					
20	Maintaining independence when partnering with industry …					
21	Some journals and conferences publishing poor quality work …					
22	Establishing and maintaining collaborative relationships with other IS academics …					
23	Fairly sharing the benefits of research with academic research partners …					
24	The communication gap between researchers and practitioners …					
25	Getting financial support from my institution for research (eg. equipment, conference attendance, information resources) …					
26	Top ranking journals' focus on North American issues …					
27	Subtle complexities with data analysis …					
28	Decision makers outside IS not recognizing the quality of IS journals and conferences …					
29	Finding academic research collaborators with similar research interests …					
30	The fractured and diverse nature of IS research …					
31	Establishing and maintaining collaborative relationships with academics from other disciplines …					
32	Journals that favour authors already known to the editorial board…					
33	Lack of good, motivated research students …					
34	Funding bodies giving low recognition to IS research …					
35	Finding a research mentor …					
36	Writing grant applications …					
37	Lengthy journal review cycle times …					
38	Balancing rigour with relevance ….					
39	Difficulty conducting research that is relevant to practice ….					
4	Inadequate acceptance of research involving building IT artifacts…					

	Issue	Strongly Disagree		Neutral		Strongly Agree
0						
41	Disagreement within the IS community on what are valid research methods in IS …					
42	Access to qualified research assistants …					
43	Inadequate building on, and testing of, previous IS research …					
44	Lack of consensus on appropriate criteria for evaluating IS research methods …					
45	Research training at my institution …					
46	Inadequate motivation to do research …					
47	Lack of understanding by those outside the IS domain that IS is a distinct area of scholarship and research …					
48	Lack of research administrative support …					
49	Poor reviewing with poor quality feedback …					
50	The multidisciplinary nature of IS making it difficult to keep abreast of the literature…					
51	Writing in a way that is well received by quality academic outlets …					
52	Disagreement within the IS community on what are the boundaries of IS …					
53	Selecting a suitable publishing outlet for my research …					
54	Relative lack of IS frameworks and theories, compared to other disciplines …					
55	Discipline service demands (eg. reviewing, editing conference organising)...					
56	Institutional service and Administration demands (eg. course development, university committees, administration)...					

COMMENTS (Please relate any comments you have on the survey, including issues you feel have been overlooked)?

Thank you for your participation!

END OF SURVEY – ROUND TWO

APPENDIX VII. MISRC-AIS FACULTY DIRECTORY - REPRESENTATIVES HIERARCHY - PLAN

Country Representatives (CRs): Though originally considered as a means of recruiting involvement in the intended multi-state case study, it was resolved that the most workable arrangement for assuring a high-quality directory whose completeness and accuracy is sustainable, was to have country-level moderation of input to the directory – a system of Country Representatives (CRs). Responsibilities of the CRs might include:

- promote enrolment in the directory through local associations (e.g. in Australia: Australian Computer Society, Australian chapter of AIS, …)
- Promote enrolment through relevant local/national e-mail lists
- Resolve "bachelors equivalence" in the country
- Identify ALL relevant institutions and programs within the country
- Recruit an institution representative from each institution
- Inform RA of all institution representatives
- Vet template e-mail to "IS areas" in country institutions, aimed at recruiting institution representatives
- Moderate all changes to the directory for entries from their country
- Maintain a Web-based table of Institution Representatives (IRs) for their country
- Establish Web-based table for maintaining IR details (name, e-mail, institution, address, phone, fax, …)

Institution Representatives (IRs): Responsibilities of the IRs might include:

- Notify the Country Representative of all IS-areas at their institution (e.g. Business? Science? Technology?)
- Take responsibility for ensuring the details of their institution's IS faculty on the MISRC-AIS faculty directory is complete and current
- Periodically review the online directory to ensure its continuing currency
- Notify the Country Representative of any personal plans to leave or be away from the institution for an extended period, and appoint a permanent or temporary replacement

AIS Representative (AIS-Rep): It also became apparent that, for the CR level of the hierarchy to remain current, there must exist a role that sits over the CRs. This over-arching role was to be assumed by the IS-in-PA project team for the duration of the project, the belief being that such a role should thereafter become the responsibility of a member of AIS Exec.

Further discussion ensued on the need for, and appropriateness of, such a structure in Europe and the Americas. Though the Americas might be considered relatively more homogenous in many respects, it was agreed that such a structure would benefit and is warranted for, all three world regions of AIS. It was further agreed that VP Members Services would seem the appropriate position to oversee and maintain a list of CRs in the structure. It is recognised that, while the CR structure is was being promoted herein primarily as a vehicle of improving and maintaining the directory, and as a means of facilitating the study country case studies, the establishment of such a structure would undoubtedly prove beneficial to other future endeavours of the AIS.

Responsibilities of the AIS-Rep in relation to the directory might include:

- propose to AIS Executive, procedures for the appointment/election of CRs
- Annually canvass CRs to ensure they are yet active and committed
- Maintain a table of CRs
- Generally oversee the quality of the directory

It could be useful to hold an annual meeting of the CRs, either at ICIS, or separate meetings at AMCIS, ECIS and PACIS, whereat CRs have an opportunity to voice issues (e.g. with AIS, with the directory, as regards the evolution of IS in their country).

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