

Information Systems Research in Australia and New Zealand: A Survey of Research Activity from 2020 to 2022

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Abstract: Over the past 60 years, the information systems (IS) discipline has become an established research field in Australia and New Zealand. Throughout its history, the discipline has experienced an ongoing formation and evolution of its unique identity, with important links to both business and computing-focused research. As a sociotechnical discipline, IS research considers a wide range of phenomena that emerge when social systems interact with technical systems. Yet, there is a lack of research into how recent socioeconomic and technical developments, such as accelerated digitisation in the aftermath of Covid19, widescale university restructuring, and a revision of the government's research classification schemes, have affected the IS discipline. Against this backdrop, the present paper seeks to establish the current state of the IS discipline in Australia and New Zealand. Based on a survey of 123 IS researchers, we confirm the sociotechnical nature of the IS discipline in this region, identify research focus areas, provide research output benchmarks at different academic levels, and assess the level of engagement with general and specialised conferences. Our results provide important insights into the positioning of the IS discipline at the nexus of business and computing-focused research.

Keywords: Researcher demographics; Research activity; Conference engagement; Survey.

1 Introduction

Over the past 60 years, the Information Systems (IS) discipline has become an established research field in Australia and New Zealand (Gable, Gregor, et al., 2008; Lehmann & Huff, 2007), with first academic programs dating back to the late 1960s in Australia (Pervan & Shanks, 2008) and the early 1980s in New Zealand (Lehmann & Huff, 2007). As a sociotechnical discipline, IS scholars investigate a wide range of phenomena that emerge when social systems interact with technical systems (Lee, 2001; Niederman & March, 2012; Sarker et al., 2019). As such, the IS discipline has important links to both business and computing-focused research, but yet holds its own unique identity (Kautz, 2021). Hence, also the current state and ongoing evolution of the IS discipline needs to be considered both in terms of its relation to developments in business and computing research.

Throughout its history, the IS discipline in Australia, New Zealand, and beyond has experienced different phases along socioeconomic and technical developments that have influenced the evolution of its identity (e.g., programmer-in-training scheme, dot.com acceleration; Clarke, 2008; Hirschheim & Klein, 2012). In September 2022, the Australian and

New Zealand IS professoriate conducted a joint workshop to discuss how the emergence of new external developments had impacted the current state of the IS discipline. These included challenges associated with accelerated digitisation in the aftermath of Covid19, generational and structural changes for IS groups in the wake of widescale university restructuring, and the first large-scale revision of the Australian and New Zealand Standard Research Classification (ANZSRC) scheme in more than a decade. Given that previous studies on the current state of the IS discipline in Australia and New Zealand occurred about a decade ago (e.g., Lehmann & Huff, 2007; Pervan & Shanks, 2008; Ridley, 2006; Smyth et al., 2016), the groups agreed that there was a need for a survey that establishes the current state of the IS discipline in this region to inform what the discipline can do in its own interest.

Towards this end, this article sets out to address the following research questions:

RQ1: What are the demographics of IS researchers in Australia and New Zealand in terms of career stage, role, department, and research outputs?

RQ2: In which ANZSRC fields are IS researchers in Australia and New Zealand active in within and beyond the major business and computing areas?

RQ3: To what extent do IS researchers in Australia and New Zealand engage with general and specialised IS conferences?

To address these research questions, we conducted an online survey of IS researchers with a primary affiliation at an Australian or New Zealand university. The survey builds on established schemes for the classification of research fields and differentiation of academic levels. In total, 123 IS researchers from 30 universities in Australia and 9 universities in New Zealand participated. The remainder of this article is organised as follows. In Section 2, we provide a brief background on IS research in Australia and New Zealand and its positioning as a field of research in the wider research classification landscape. In Section 3, we describe the method of the survey. In Section 4, we present the results of the survey in terms of IS researcher demographics, activity in specific research fields, and engagement with IS conferences. Finally, Section 5 provides a general discussion of our findings.

2 Background

2.1 Related Work

A range of previous studies have provided important insights into the history, focus, and impact of the IS discipline in Australia and New Zealand. Given the smaller population size and, hence, smaller number of universities, it is not surprising that the body of work is comparatively smaller for New Zealand (e.g., Gable, 2007; Lehmann & Huff, 2007). To the best of our knowledge, first academic analyses of the nature and structure of the IS discipline in Australia go back to a series of studies in the context of G. Ridley (2000)'s doctoral dissertation. Ridley et al. (1997, 1998) provided the first overview of the IS discipline at Australian universities based on an analysis of articles in Australasian publication outlets. Following up, Ridley and Keen (1998) reviewed the epistemology of empirical studies conducted by Australian academics published between 1980 and 1996. The authors found a strong focus on positivist research, with less than 10% of studies employing interpretive or critical studies.

In 2006, the *Australasian Journal of Information Systems* (AJIS) published a special issue themed "Information Systems in Australian Universities." Building on a contextual framework by Gable (2006), the special issue presented seven case studies on the structure,

size, curriculum, and research of IS discipline groups in the six Australian states and one territory. Further, it included a historical breakdown by Clarke (2006) on the IS discipline's history in Australia and its key milestones and phases along socioeconomic and technical developments. Two years later, the AJIS special issue was extended to an edited book (Gable, Gregor, et al., 2008). Further, following up on the "IS-in-Oz" multi-case study, the journal *Communications of the Association for Information Systems (CAIS)* published a special issue on the state of the IS discipline in Pacific-Asia in 2007, including one case study each for Australia (Gable, 2007) and New Zealand (Lehmann & Huff, 2007).

The edited book published in 2008 also included a longitudinal analysis by Pervan and Shanks (2008) on the current state of IS research for the time from 2004 to 2006. Following up on a preliminary study by Pervan and Cecez-Kecmanovic (2001), the authors had distributed an annual survey to the heads of all IS discipline groups in Australian university (Pervan & Shanks, 2006). Thereby, survey respondents reported information on discipline size and structure and as well as the foci, paradigms, methods, and performance of their research *at the school level* (i.e., one response per school). The authors found a range of 21 different IS topics covering a wide range of organisational (organisational implications of IS, IS management/strategy), societal (societal effects, legal/ethics aspects), and technical matters (e.g. databases, computer and network applications). Thereby, the authors found substantial research interest in IS management and strategy, the organisational implications of IS and IT, IS adoption/diffusion, theoretical underpinnings of IS, and IS education. Further, they observed that research focus shifted with the emergence of new technologies (e.g., electronic commerce, mobile commerce), while interest in specific topics and technical issues such as computer and network applications, computer-supported cooperative work (CSCW), and legal aspects of IT were relatively less popular.

Complementary to surveys, several scholars engaged in bibliometric analysis, often with a particular focus on the peak IS conference in the region, the Australasian Conference on Information Systems (ACIS). These include co-author network analysis (Cheong & Corbitt, 2009; Dang-Pham & Kautz, 2018, 2017) and archival analysis of ACIS papers to examine longitudinal trends in themes, research methods, and submission rates (Gable, Smyth, et al., 2008; Stead et al., 2020). Further, Clarke (2009) compared the suitability of the Google Scholar and Thomson/ISI metrics to assess the impact of IS researchers, noting the importance of taking into account multiple measures to adequately consider the nature of IS research.

2.2 Classification of IS Research

The ANZSCR provides a general classification for research in Australia and New Zealand. With its latest release in 2020, ANZSRC was jointly developed by the Australian and New Zealand governments.¹ Among other classifications, the ANZSRC includes a Fields of Research (FOR) classification that is widely applied across the university sectors in both countries (e.g., for reporting and strategic planning purposes) and beyond (Joung et al., 2020; Vancauwenbergh & Poelmans, 2019). It is widely used by government agencies, public and private funding bodies, research institutes, universities, and other entities to classify, measure,

¹ The 2020 ANZSCR was jointly developed by the Australian Bureau of Statistics, Stats NZ, the Australian Research Council, and the New Zealand Ministry of Business, Innovation and Employment. It is available online at: <https://www.abs.gov.au/statistics/classifications/australian-and-new-zealand-standard-research-classification-anzsrc>

and analyse research and development activities. Thereby, the FOR classification considers 23 general FOR divisions (2-digit codes), covering the breadth of research from agricultural sciences to psychology. These research divisions are then further broken down into 213 FOR groups (4-digit codes) and 1967 specific FOR fields (6-digit codes).

The IS discipline's unique identity with its links to both business and computing-related research also becomes apparent in the FOR structure. Specifically, the ANZSCR captures IS research in two different FOR groups within separate divisions. On the one hand, IS research is covered in FOR group 3503 (Business Systems in Context), which belongs to the broader FOR division 35 (Commerce, Management, Tourism and Services). On the other hand, IS research is covered in FOR group 4609 (Information Systems), which belongs to the broader FOR division 46 (Information and Computing Sciences). The ANZSRC also provides short definitions for the listed FOR groups. Depending on the particular group, the definitions leave more or less room for interpretation. For the two major IS research FOR groups, it is safe to state that the definitions are rather broad. Specifically, the FOR 3503 definition states: "This group covers business systems in context." The FOR group 4609 definition states: "This group covers systems that manage information for organisational purposes."

2.3 The 2020 ANZSRC Revision

The nature of IS as a sociotechnical discipline and its positioning within two separate FOR divisions repeatedly sparks debates not only within the IS discipline but also with neighbouring disciplines in the business and computing areas about the core, focus, and differentiation of IS research. This includes a range of debates and consultations of academic bodies around the first major update of ANZSCR in more than a decade in 2020. Across the sector, the 2020 revision saw a 35.7% (58.9%) increase in codes from 157 FOR groups (1238 FOR fields) in 2008 to 213 FOR groups (1967 FOR fields) in 2020. Figure 1 provides an overview of how the classification of IS research has changed in ANZSRC from 2008 to 2020.

One of the major changes in the 2020 ANZSRC revision was the introduction of a dedicated FOR group 3503 (Business Systems in Context). This group separated the business-oriented IS research fields from other business and management aspects they were previously grouped with. Another important change was the introduction of a new FOR group 4609 (Human-Centred Computing) that had previously been covered largely by a field within group 080602 (Computer-Human Interaction) in ANZSRC 2008. In other words, research in human-computer interaction is no longer classified within the IS FOR group.

Given the importance of the ANZSRC scheme and the large-scale changes in 2020, it is important to understand in which FOR fields IS researchers are active in to inform the strategic positioning of the discipline. Universities tend to align department structures with established disciplinary classifications such as the ANZSRC (Hider & Coe, 2020). Hence, information on which particular FOR groups IS academics are active in provides important contextual information to articulate the identity, research culture, and value proposition of the IS discipline. Further, it is vital for the discipline to continuously monitor to what extent the revised FOR fields actually cover the research of IS academics. This will aid in identifying potential gaps and necessary refinements in the scheme.

ANZSRC 2008	ANZSRC 2020
0806 Information Systems	4609 Information Systems
080601 Aboriginal & Torres Strait Islander Inform. & Knowledge Systems	460901 Business Process Management
080602 Computer-Human Interaction	460902 Decision Support & Group Support Systems
080603 Conceptual Modelling	460903 Information Modelling, Management & Ontologies
080604 Database Management	460904 Information Security Management
080605 Decision Support & Group Support Systems	460905 IS Development Methodologies & Practice
080606 Global Information Systems	460906 IS Education
080607 Information Engineering & Theory	460907 IS for Sustainable Development & the Public Good
080608 IS Development Methodologies	460908 IS Organisation & Management
080609 IS Management	460909 IS Philosophy, Research Methods & Theory
080610 IS Organisation	460910 IS User Experience Design & Development
080611 IS Theory	460911 Inter-org, Extra-org & Global IS
080612 Inter-org IS & Web Services	460912 Knowledge & Information Management
080613 Māori Inform. & Knowledge Systems	460999 Not Elsewhere Classified
080614 Pacific Peoples Inform. & Knowledge Systems	
080699 Not elsewhere classified	
1503 Business & Management	3503 Business Systems in Context
150301 Business Inform. Management	350301 Business Analytics
150302 Business IS	350302 Business Inform. Management
... [Other Entrepreneurship & Business]	350303 Business IS
150307 Innovation & Technology Management	350304 Business Systems in Context
... [Other Management & Org Behaviour]	350305 Forensic Intelligence
150399 Not Elsewhere Classified	350306 Forensic Science & Management
	350307 Technology Management
	350399 Not Elsewhere Classified

Figure 1. Classification of IS Research in ANZSRC 2008 and 2020

2.4 National and International Representation of IS Researchers

The two peak bodies to represent the Australian and New Zealand IS professoriate are the Australian Council of Professors and Heads in Information Systems (ACPHIS) and the Professors and Heads in Information Systems in New Zealand (PHIS-NZ). In close collaboration, ACPHIS and PHIS-NZ represent IS academics in matters of national and international importance. In doing so, they liaise with government entities (e.g., the Australian Research Council, ARC), professional bodies (e.g., the Australian Computer Society, ACS), international organisations (e.g., the Association for Information Systems, AIS, and its Australasian Chapter, AAIS) and related academic bodies (e.g., Australian Business Deans Council, ABDC; Australian Council of Deans in ICT, ACDICT).

ACPHIS and PHIS-NZ regularly organise forums for the IS professoriate to discuss important matters related to IS research and the IS curriculum. Among other initiatives, this has led to the establishment of journal and conference rankings (e.g., the ACPHIS journal list, and the ACPHIS conference lists), consultation with the IS professoriate and other academic bodies around the ANZSRC revision,² and recognition of IS conferences and journals by related academic bodies (e.g., recognition of IS journals in the ABDC journal quality list). The present study builds on these rankings and classifications to establish the current state of IS research

² In May 2019, ACDICT, ACPHIS, ALIA (Australian Library and Information Association), CORE (Computing Research & Education Association of Australasia), and PHIS-NZ coordinated a joint submission to the ARC in response to the review of the ANZSRC (ALIA, 2019).

in Australia and New Zealand. Also, the need for the present survey was identified during a joint ACPHIS and PHIS-NZ workshop in September 2022.

2.5 IS Conferences and Journals

The IS discipline in Australia and New Zealand contributes globally to IS research in a range of conference and journal outlets. Through the regional chapter AAIS, the IS communities in Australia, New Zealand, and Oceania are directly connected with the global IS community represented by the AIS. ACIS, the peak IS conference in the region, can already look back on more than three decades of history (Dang-Pham & Kautz, 2017; Gable, 2008; Ridley, 1997).³ Co-authorship network analyses emphasise the importance of ACIS for the IS discipline in Australia and New Zealand (Cheong & Corbitt, 2009; Dang-Pham & Kautz, 2018, 2017). AJIS, the premier journal, first appeared in 1993 and is widely regarded as the top regional outlet of the IS field in Australasia (Fisher et al., 2007; Hirschheim & Klein, 2012; MacGregor, 1993).

The inherent links of IS as a sociotechnical discipline to business and computing research also become apparent in the importance of not only journal but also conference papers. In contrast to other business-oriented disciplines (e.g., management, marketing), IS has a strong history of recognizing peer-reviewed conference papers, somewhat similar to other computing-oriented disciplines (e.g., computer science, software engineering) (Ridley, 1997; Ridley et al., 1998). At the same time, there have been ongoing debates within the IS discipline as to the impact of conference papers as compared to journal articles (Ridley, 1997; Ridley et al., 2008). Notwithstanding these ongoing debates and developments over time, the IS professoriate recognises the importance of both journal and conference publication avenues by means of discipline-specific rankings and recommendations.

As for journal publications, the IS professoriate in Australia and New Zealand supports and recognises academic excellence by means of the ACPHIS journal list. First created in 2006 by a panel of senior IS scholars in consultation with the wider IS community (Fisher et al., 2007), the ACPHIS journal list has undergone several iterations.⁴ It provides important guidance for IS researchers on the quality of different journal outlets (Sellitto, 2007). The list is regularly harmonised with the ABDC journal quality list, a general list of business research-related journals provided by the ABDC. Further, as for conference papers, ACPHIS provides two complementary lists of recommended IS conferences.⁵ Created in 2014, these lists recognise the importance of conference publications for IS research (Bunker, 2014). While the generic list includes seven conferences that cover IS research broadly (e.g., ACIS), the specialised list includes fourteen conferences that each focus on a specific IS domain (e.g., business process management, decision support systems). However, to date there exists no analysis on IS researchers' engagement with these generic and specialised IS conferences.

³ As noted by Gable (2008), ACIS was first run under the name "First Annual Conference on Information Systems" at Monash University in 1990, followed by "Second Annual Conference on Information Systems and Database Special Interest Group" in 1991. In 1992, it was then renamed to "Australian Conference on Information Systems", before its final naming of "Australasian Conference on Information Systems" in 1994.

⁴ The ACPHIS journal list is available at: <https://www.acphis.org/acphis-journal-list>

⁵ The conference recommendation lists are available at: <https://www.acphis.org/recommended-is-conferences>

3 Method

The study was carried out within a descriptive, positivist framework (Orlikowski & Baroudi, 1991). Descriptive statistical analysis was employed.

3.1 Sample

To recruit a wide range of IS researchers with a primary affiliation at an Australian or New Zealand university, recruitment relied on email invitations using three invitation modes. First, the authors directly invited individuals that they identified as potential IS researchers based on a web-search conducted on university websites and professional networks (LinkedIn, ResearchGate). Second, invitation emails were sent to IS research community mailing lists in Australia and New Zealand (ACIS 2022, IS-Aus, IS-HoDs, PHIS-NZ). Third, the email invitations encouraged snowballing, that is, the survey respondents were encouraged to forward the survey invitations to other IS researchers within their university. The study protocol was approved by the ethics committee at the University of Newcastle, Australia (H-2022-0367).

After clicking on the survey link, participants were provided with an information statement that detailed the goals, procedure, and investigators of the study, and were asked for consent to participate. They were also encouraged to ask any questions that they may have before proceeding to participation. Only after confirming their consent, the survey started. In total, 123 individuals with a primary research affiliation at an Australian or New Zealand university participated in the survey (79 men, 35 women, 0 other, 9 prefer not to answer).

3.2 Survey Structure

The survey was designed in several iterations with feedback sought from ACPHIS and PHIS-NZ members. This included presenting and discussing a pilot survey with the ACPHIS and PHIS-NZ membership in late 2022. The feedback provided through pilot survey responses, general meetings attendees, ACPHIS and PHIS-NZ executives, and individual follow-up emails was then used to refine the survey. The revision of the survey included (1) simplifying the reporting of research activity for specific FOR codes, (2) increasing the mobile-friendliness of the survey, (3) adding a question around research income, and (4) including links for survey participants to look up background information on FOR codes and journal rankings. The final survey instrument is provided in the Appendix.

3.3 Data Analysis

In line with our three overarching research questions, our analysis builds on descriptive statistics to summarise survey responses along the focus areas of (1) researcher demographics, (2) research activity in specific fields of research, and (3) engagement with conferences. Further, we used thematic analysis to extract themes from the optional free-text responses about engagement with IS conferences (Braun & Clarke, 2006). To triangulate and validate our analysis, we adopted a 'virtuous cycle' of gathering feedback on our findings through presentations to different forums, in particular ACPHIS Special General Meetings (June and October 2023). We sought feedback to better explain and interpret the analysis results of IS research's current state. Many attendees of these meetings, through their active roles in the IS discipline, have immediate and ongoing access to organisational memory, and have developed meaningful knowledge about the state of the IS discipline more broadly. In this way, key informants were able to communicate the historical, social, and cultural nuances to the

research findings (Tremblay, 1957). Importantly, this feedback served as progressive learning for the research team about IS research in Australia and New Zealand.

4 Results

4.1 IS Researcher Demographics

Table 1 provides an overview of IS researcher demographics with primary affiliation at a university in Australia (101 responses from 30 universities) and New Zealand (22 responses from 9 universities). This includes academic staff members (97, 78.9%), with adjunct/emeritus academics (9, 7.3%), and research higher degree (RHD) candidates (17, 13.8%) listed separately.⁶ The latter category comprises of 15 Doctor of Philosophy (PhD) and 2 Master of Philosophy (MPhil) candidates. Most academic staff held ongoing positions (89, 92.8%), while 7 (7.2%) academics were on contract positions (mean contract length = 2.57 years [min = 1 year, max = 5 years]).

Role	Australia Total [M W NA]	New Zealand Total [M W NA]	Both Total [M W NA]
Professor	12 [8 3 1]	4 [2 0 2]	16 [10 3 3]
Associate Professor	20 [9 7 4]	8 [4 4 0]	28 [13 11 4]
Senior Lecturer	18 [17 1 0]	7 [5 2 0]	25 [22 3 0]
Lecturer	23 [15 7 1]	0 [0 0 0]	23 [15 7 1]
Associate Lecturer	1 [0 1 0]	0 [0 0 0]	1 [0 1 0]
Postdoc/Other	2 [2 0 0]	2 [2 0 0]	4 [4 0 0]
Adjunct/Emeritus	9 [6 3 0]	0 [0 0 0]	9 [6 3 0]
RHD Candidate	16 [9 6 1]	1 [0 1 0]	17 [9 7 1]
Total	101 [66 28 7]	22 [13 7 2]	123 [79 35 9]

Note: Two academics who identified as “assistant professor” are listed were mapped to Lecturer rather than Postdoc/Other; M = man; W = woman; NA = “prefer not to answer”.

Table 1. IS Researcher Demographics

Table 2 provides an overview of how much full-time equivalent (FTE) time of academic staff is dedicated to research, along with the overall FTE of the respective role. Overall, FTEs dedicated to research range between 25 and 45% on average, with distinct differences across academic levels. Notably, lecturers reported the highest FTE dedicated to research (44.2%).

Role	Australia Research [Total]	New Zealand Research [Total]	Both Research [Total]
Professor	32.5% [100%]	45.8% [100%]	35.8% [100%]
Associate Professor	33.5% [83.5%]	45.7% [100%]	37.0% [88.2%]
Senior Lecturer	35.0% [83.3%]	33.1% [98.6%]	34.4% [87.6%]
Lecturer	44.2% [83.5%]	-	44.2% [83.5%]
Associate Lecturer	26.7% [100%]	-	26.7% [100%]
Postdoc/Other	72.7% [90%]	69% [100%]	70.8% [95%]

Note: The percentage in brackets lists academics’ average FTE in the respective role category.

Table 2. Full-time Equivalent of Academic Staff Dedicated to Research

⁶ Notwithstanding important differences between emeritus and adjunct roles, we decided to create a combined category Adjunct/Emeritus due to small response rates in the respective categories. In total, the dataset includes responses from 6 emeritus professors, 2 adjunct professors, and 1 adjunct postdoc.

Given the interdisciplinary nature of the IS field as a sociotechnical discipline, there is a range of overarching areas that IS researchers can be aligned with. Table 3 provides an overview of which department (school, faculty, or college) academic staff reported to be aligned with within the structure of their primary research affiliation.

Department	Australia	New Zealand	Both
Business School / Faculty / College	41 [53.9%]	13 [61.9%]	54 [55.7%]
ICT/IS/IT School / Faculty / College	22 [28.9%]	5 [23.8%]	27 [27.8%]
Engineering and/or Science School / Faculty / College	11 [14.5%]	3 [14.3%]	14 [14.4%]
Other	2 [2.6%]	-	2 [2.1%]

Note: Departments are ordered from highest total number of academics to lowest. “Other” included law school and a STEM academic unit.

Table 3. Department of Academic Staff

Table 4 provides an overview of the research outputs and grant income of academic staff per annum over the three-year period from 2020 to 2022. In total, 97 staff responded to the optional question about research publications and 77 academic staff responded to the optional question around grant income. The calculations are based on the median values for the different academic roles, divided by three to arrive at annual values. Please note that the median of the sum of research outputs (e.g., C1 articles) does not equal the sum of medians of individual categories. Hence, each median needs to be considered individually for that particular category. These findings are at par with data from the mid-2000s, where the average reported publication count was about 2.3 per annum for each staff member (not broken down by academic seniority), of which one-third was in journals and two-thirds in conferences (Pervan & Shanks, 2006).

Role	B1 Book Chapters	C1 Journal Articles Total [A* A B C no rank]	E1 Conf. Papers Total [IS Gen. Other]	Grant Income AU\$ [NZ\$]
Professor	0.0	2.3 [0.8 1.2 0 0 0]	2.0 [0.8 0.3]	AU\$36,667 [NZ\$39,472] (including 7.7% who reported \$0)
Associate Professor	0.0	2.5 [0.3 1.0 0 0 0.2]	1.7 [1.3 0]	AU\$23,333 [NZ\$25,118] (including 33.3% who reported \$0)
Senior Lecturer	0.0	1.0 [0 0.3 0 0 0]	0.7 [0.3 0]	AU\$1,548 [NZ\$1,667] (including 47.8% who reported \$0)
Lecturer	0.0	0.7 [0 0.3 0 0 0]	1.3 [0.7 0]	AU\$0 [NZ\$0] (all reported \$0)
Associate Lecturer	0.3	0.3 [0 0 0 0 0.3]	0.7 [0 0.7]	-
Postdoc/Other	0.0	0.3 [0 0 0 0 0.2]	1.0 [0 0.2]	AU\$2,500 [NZ\$2,691] (including 50.0% who reported \$0)
Responses	N = 96			N = 77

Note: C1 outputs by ABDC ranking. E1 outputs grouped into IS Generic as per ACPHIS recommended list, or other. Grant income refers to an academic’s individual contribution that they accumulated over the three-year period from 2020 to 2022 (not the total grant amount across all investigators), divided by three to arrive at annual values. AU\$ / NZ\$ conversion is based on the exchange rate on 2 Jan 2023 (AU\$1 = NZ\$1.0765). Responses refer to how many academic staff responded to the optional questions about research outputs and grant income. For Associate Lecturers, no median grant income could be calculated due to lack of responses.

Table 4. Annual Research Publications and Grant Income of Academic Staff

4.2 Research Activity

4.2.1 Research Activity in FOR Groups 3503 and 4609

The two main FOR groups for IS research are the business-related group 3503 “Business Systems in Context” and the computing-related group 4609 “Information Systems”. As can be seen in Table 5, research activity for group 4609 was slightly higher than for group 3503. Most researchers (95, 77.2%) reported research activity in both 3503 and 4609. Only few academics reported no activity in either of these two FOR groups (6, 4.9%).⁷ Further, the table also breaks down total frequencies and relative percentages of activity that IS researchers reported for the individual fields within the two main groups. On average, researchers reported activity in 7.02 different FOR fields within the 3503 and 4609 groups (academic staff: 7.00 [Min = 0, Max = 21, Median = 6], adjunct/emeritus: 5.33 [Min = 2, Max = 13, Median = 3], RHD candidates: 8.00 [Min = 0, Max = 18, Median = 8]). The main FOR fields that more than 40% of IS researchers reported activity in are 350303 (business IS; 66.7%), 460908 (IS organisation & management; 47.2%), 350307 (technology management; 42.3%), and 350302 (business information management; 41.5%).

FOR Group and Field	Academic Staff	Adjunct / Emeritus	RHD Candidate	Total
FOR Group 3503 & 4609				
3503 Business Systems in Context	80 [82.5%]	8 [88.9%]	12 [70.6%]	100 [81.3%]
4609 Information Systems	90 [92.8%]	7 [77.8%]	15 [88.2%]	112 [91.1%]
Both (3503 and 4609)	77 [79.4%]	6 [66.7%]	12 [70.6%]	95 [77.2%]
Only One (either 3503 or 4609)	16 [16.5%]	3 [33.3%]	3 [17.6%]	22 [17.9%]
Neither (neither 3503 or 4609)	4 [4.1%]	2 [22.2%]	0 [0.0%]	6 [4.9%]
FOR Fields within 3503				
350303 Business Information Systems (IS)	63 [64.9%]	7 [77.8%]	12 [70.6%]	82 [66.7%]
350307 Technology management	41 [42.3%]	2 [22.2%]	9 [52.9%]	52 [42.3%]
350302 Business information management [incl. records, knowledge & intelligence]	41 [42.3%]	1 [11.1%]	9 [52.9%]	51 [41.5%]
350304 Business systems in context	37 [38.1%]	4 [44.4%]	8 [47.1%]	49 [39.8%]
350399 Not elsewhere classified	39 [40.2%]	3 [33.3%]	4 [23.5%]	46 [37.4%]
350301 Business analytics	34 [35.1%]	2 [22.2%]	7 [41.2%]	43 [35.0%]
350306 Forensic science and management	5 [5.2%]	-	1 [5.9%]	6 [4.9%]
350305 Forensic intelligence	3 [3.1%]	-	-	3 [2.4%]
FOR Fields within 4609				
460908 IS organisation & management	46 [47.4%]	2 [22.2%]	10 [58.8%]	58 [47.2%]
460909 IS philosophy, research methods & theory	34 [35.1%]	6 [66.7%]	9 [52.9%]	49 [39.8%]

⁷ Two academic staff reported research activity in other computing-oriented fields (4604 “Cybersecurity & Privacy”; 4606 “Distributed Computing & Systems Software”; 4607 “Graphics, Augmented Reality & Games”; 4608 “Human-Centred Computing”). One academic staff reported research activity in another business-oriented field (3507 “Strategy, Management & Organisational Behaviour”). The remaining three respondents did not report activity in any FOR group or field.

460902 Decision support & group support systems	37 [38.1%]	4 [44.4%]	7 [41.2%]	48 [39.0%]
460999 Not elsewhere classified	38 [39.2%]	1 [11.1%]	5 [29.4%]	44 [35.8%]
460905 IS development methodologies & practice	36 [37.1%]	2 [22.2%]	5 [29.4%]	43 [35.0%]
460906 IS education	35 [36.1%]	2 [22.2%]	5 [29.4%]	42 [34.1%]
460912 Knowledge & information management	33 [34.0%]	2 [22.2%]	7 [41.2%]	42 [34.1%]
460910 IS user experience design & development	31 [32.0%]	3 [33.3%]	6 [35.3%]	40 [32.5%]
460907 IS for sustainable development & the public good	32 [33.0%]	2 [22.2%]	5 [29.4%]	39 [31.7%]
460904 Information security management	30 [30.9%]	1 [11.1%]	4 [23.5%]	35 [28.5%]
460911 Inter-org, extra-org & global IS	24 [24.7%]	1 [11.1%]	9 [52.9%]	34 [27.6%]
460903 Information modelling, management & ontologies	20 [20.6%]	3 [33.3%]	8 [47.1%]	31 [25.2%]
460901 Business process management	20 [20.6%]	-	6 [35.3%]	26 [21.1%]

Note: FOR Groups are ordered from highest research activity to lowest. Activity refers to the total count of responses across “somewhat active”, “active”, and “very active”.

Table 5. Research Activity in FOR Groups 3503 and 4609

Diving further into these results, Figure 2 breaks down the level of reported research activity for academic staff. As the most-reported field we observe that 63 academic staff (64.9%) reported research activity in Business Information Systems. Four fields reported by more than 40% of academic staff: IS Organisation & Management (46 staff, 47.4%), Technology Management (41 staff, 42.3%), Business Information Management (41 staff, 42.3%), and Business systems in context not elsewhere classified (39 staff, 40.2%). Notably, all three of the non-generic FOR fields include the term “management” in their title, emphasizing the importance of management aspects for IS researchers. This is followed by a range of 11 fields that each yield more than 30% of academic staff, and 2 fields mentioned by more than 20% of academic staff. Interestingly, the two fields referring to research not elsewhere classified each yielded about 40%. Specifically, Business Systems in Context not elsewhere classified (350399) was reported by 39 staff (40.2%) and IS not elsewhere classified (460999) was reported by 38 staff (39.2%). Finally, only two fields were mentioned by less than 10% of academic staff: Forensic Science & Management (350306) and Forensic Intelligence (350305).

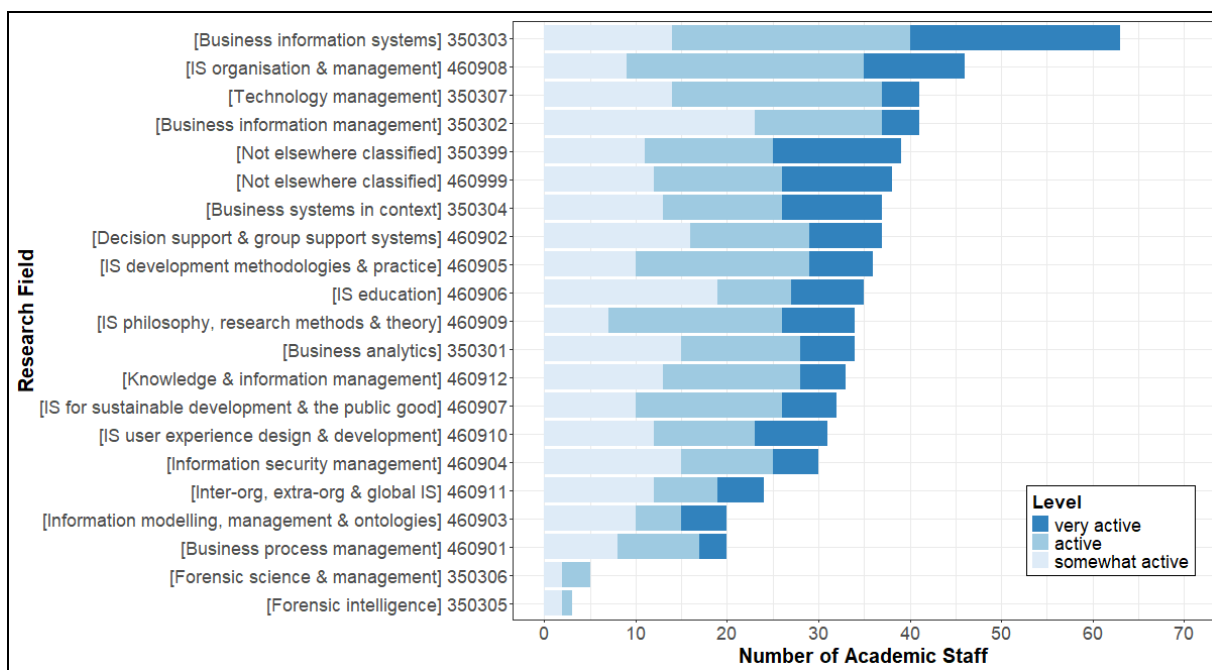
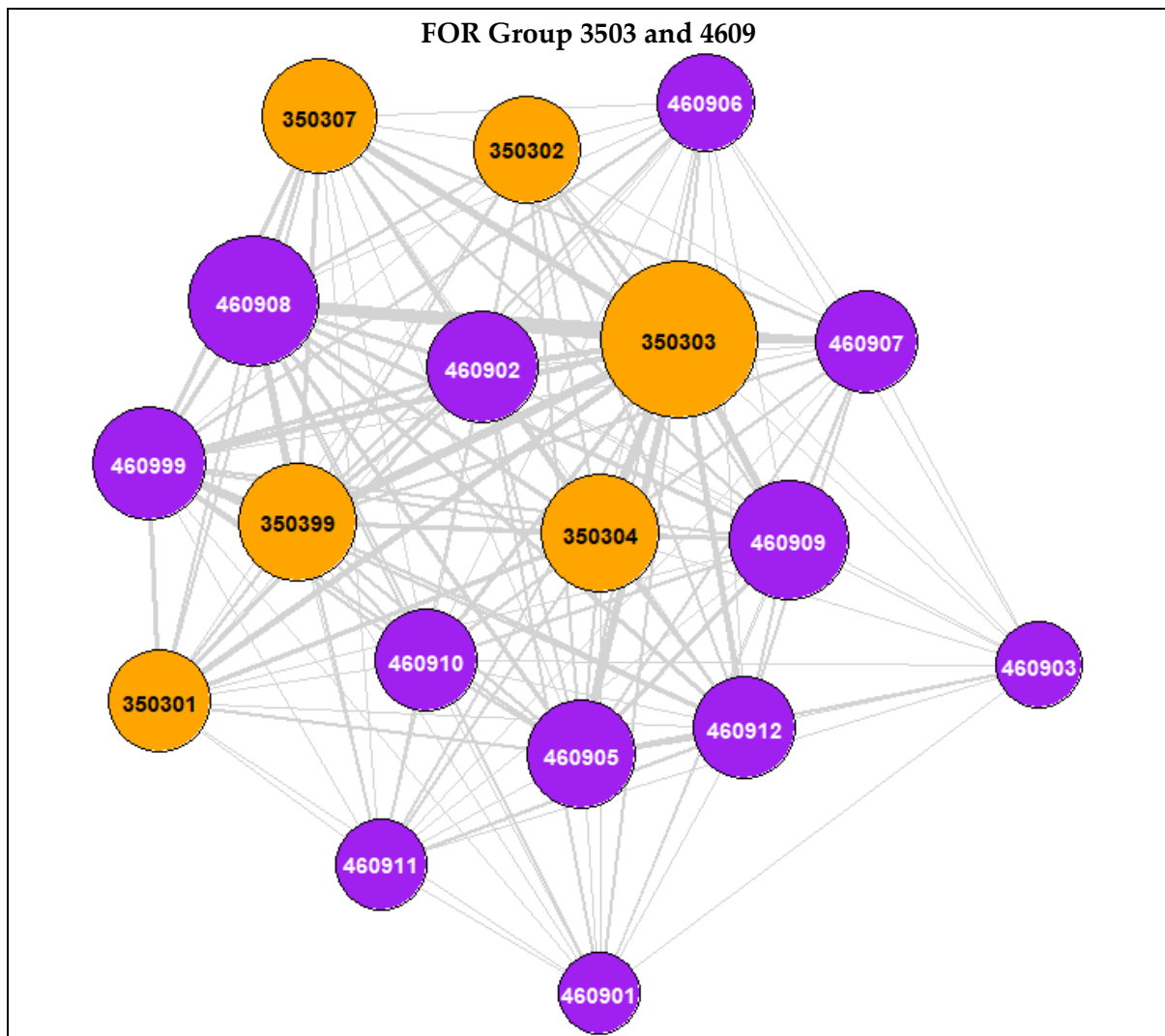


Figure 2. IS Research Activity of Academic Staff in FOR Groups 3503 and 4609



Note: Link strength between FOR codes indicates the extent to which they were co-mentioned by respondents. FOR Codes 350305, 350306, and 460904 were dropped from a) due to their limited links with the other FOR codes.

Figure 3. Links between FOR Codes within 3503 and 4609 for Academic Staff

Figure 3 illustrates to what extent an academic staff member who was active in one particular FOR code was also active in another FOR code. To consider only meaningful relations, we only considered the levels of “active” and “very active”. Thereby, the link strength between each pair of nodes is determined by the number of respondents that reported research activity for both of the respective nodes. Links across the two groups were driven by 350303 (Business IS) and 460908 (IS Organisation & Management), which are also generally the two most reported FOR fields overall, and the two generic fields (350399 and 460999). Further, 350303 (Business IS) was also often co-mentioned with 460909 (IS philosophy, research methods & theory) and 460905 (IS development methodologies & practice).

4.2.2 Research Activity in Other FOR Groups

Table 6 provides an overview of other FOR Groups that participants reported research activity in. This includes in particular business-related FOR Groups (within FOR Divisions 35 and 38) and computing-related FOR Groups (within FOR Division 46). In addition, some respondents also mentioned FOR Groups outside business and computing which related to IS applications

in health and education. For simplicity, only those FOR Groups are listed that were mentioned by at least three survey respondents.

FOR Group	Academic Staff	Adjunct / Emeritus	RHD Candidate	Total	
Other Business FOR Groups					
3507	Strategy, management & organisational behaviour	19 [19.6%]	2 [22.2%]	4 [23.5%]	25 [20.3%]
3506	Marketing	7 [7.2%]	-	-	7 [5.7%]
3502	Banking, finance and investment	4 [4.1%]	-	1 [5.9%]	5 [4.1%]
3505	Human resources & industrial relations	3 [3.1%]	-	1 [5.9%]	4 [3.3%]
3801	Applied economics	3 [3.1%]	1 [11.1%]	-	4 [3.3%]
3501	Accounting, auditing & accountability	3 [3.1%]	-	-	3 [2.4%]
3504	Commercial services	3 [3.1%]	-	-	3 [2.4%]
3509	Transportation, logistics & supply chains	2 [2.1%]	-	1 [5.9%]	3 [2.4%]
3802	Econometrics	2 [2.1%]	-	1 [5.9%]	3 [2.4%]
Other Computing FOR Groups					
4602	Artificial intelligence	19 [19.6%]	-	3 [17.6%]	22 [17.9%]
4601	Applied computing	15 [15.5%]	1 [11.1%]	3 [17.6%]	19 [15.4%]
4605	Data management & data science	11 [11.3%]	-	2 [11.8%]	13 [10.6%]
4604	Cybersecurity & privacy	11 [11.3%]	-	1 [5.9%]	12 [9.8%]
4608	Human-centred computing	10 [10.3%]	-	2 [11.8%]	12 [9.8%]
4610	Library & information studies	7 [7.2%]	-	2 [11.8%]	9 [7.3%]
4607	Graphics, augmented reality & games	7 [7.2%]	-	-	7 [5.7%]
4699	Other information & computing sciences	4 [4.1%]	2 [22.2%]	1 [5.9%]	7 [5.7%]
4606	Distributed computing & systems software	4 [4.1%]	-	1 [5.9%]	5 [4.1%]
4603	Computer vision & multimedia computation	3 [3.1%]	-	1 [5.9%]	4 [3.3%]
Other FOR Groups					
4203	Health services and systems	6 [6.2%]	-	2 [11.8%]	8 [6.5%]
3901	Curriculum and pedagogy	3 [3.1%]	-	-	3 [2.4%]
3903	Education systems	2 [2.1%]	-	1 [5.9%]	3 [2.4%]
4206	Public health	2 [2.1%]	1 [11.1%]	-	3 [2.4%]

Note: FOR Groups mentioned by three or more survey respondents, ordered from highest research activity to lowest. Activity refers to the total count of responses across “somewhat active”, “active”, and “very active”.

Table 6. Research Activity in other FOR Groups

4.3 Engagement with IS Conferences

Role	Australia	New Zealand	Both
Professor	1.33	2.00	1.50
Associate Professor	2.05	1.12	1.79
Senior Lecturer	1.78	2.71	2.04
Lecturer	2.04	-	2.04
Associate Lecturer	4.00	-	4.00
Postdoc/Other	3.5	4.00	3.75
Adjunct/Emeritus	1.00	-	1.00
RHD Candidate	3.12	3.00	3.12

Note: Importance values based on averages of individual five-point scale responses (0 = “not at all important”; 4 = “extremely important”).

Table 7. Importance of IS Conference Publications for Own Research Strategy

On average, researchers rated publishing at IS conferences for their individual research strategy as “moderately important” (mean = 2.057; SD = 1.29). As shown in Table 7, the reported importance of conference publications varied considerably across the different roles. The highest importance of conference publications was reported by associate lecturers (4.00), postdoc/other (3.75), and RHD candidates (3.12). By contrast, the lowest importance was reported by professors (1.43) and associate professors (1.64). Figure 4 shows the range of responses for academic staff. It can be seen that importance of conference publications for one’s own research strategy decreases with progression in academic seniority.

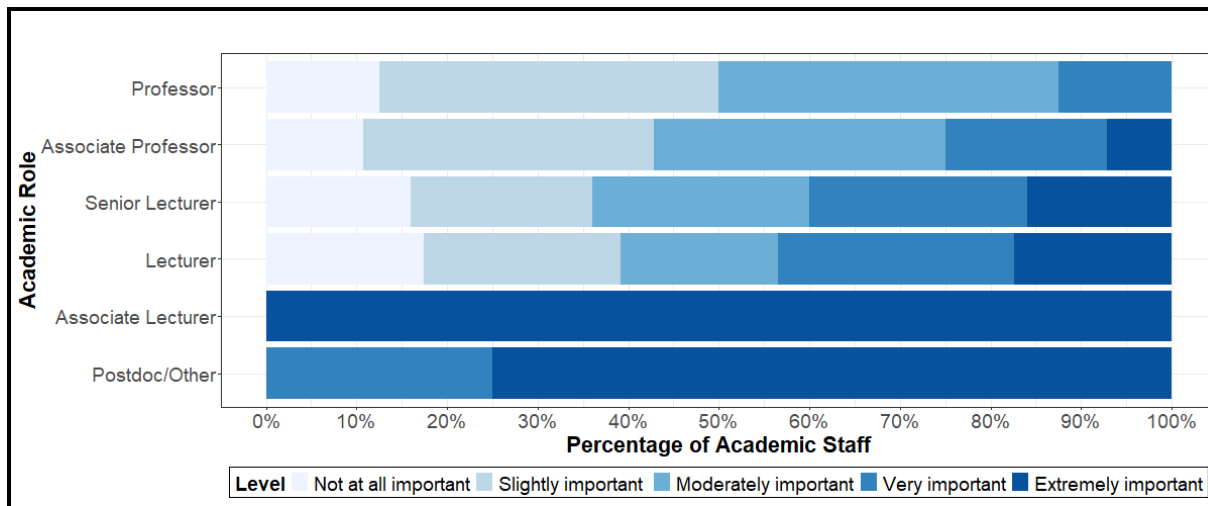


Figure 4. Importance to Publish at IS Conferences for Research Strategy of Academic Staff

Table 8 list IS researchers’ engagement with the seven generic and the fourteen specialised conferences as recommended on the ACPHIS list. Here, general engagement refers to submitting and/or reading papers at a particular conference. Notably, the submission levels are consistently higher for the generic IS conferences (lowest: ISD; future submissions = 21%) as compared to the specialised conferences (highest: CHI; future submissions = 15%).

In addition to the conferences listed in Table 8, 28 respondents also mentioned other conferences (26 academic staff, 1 adjunct/emeritus, and 1 RHD candidate). This included a total of 43 different conferences from a range of areas (e.g. accounting, mobile computing, process mining). Notably, only two conferences were named more than once, that is the IFIP WG 9.4 conference on Freedom and Social Inclusion in a Connected World (mentioned by five academic staff) and the Medinfo Conference (mentioned by two academic staff).

Conference Name	Academic Staff	Adjunct / Emeritus	RHD Candidate	Total
Generic IS Conferences				
ACIS [Australasian Conf. on Info. Systems]	90% [70%/72%]	78% [67%/56%]	94% [59%/71%]	89% [68%/71%]
ICIS [Int. Conf. on Info. Systems]	86% [58%/67%]	89% [44%/22%]	94% [41%/65%]	87% [54%/63%]
PACIS [Pacific Asia Conf. on Info. Systems]	85% [57%/56%]	78% [44%/33%]	82% [41%/47%]	84% [54%/53%]
ECIS [European Conf. on Info. Systems]	78% [56%/60%]	78% [56%/22%]	88% [29%/65%]	80% [52%/58%]

HICSS [Hawaii Int. Conf. on System Sciences]	81% [51%/55%]	67% [33%/11%]	82% [29%/47%]	80% [46%/50%]
AMCIS [Americas Conf. on Info. Systems]	69% [37%/40%]	56% [22%/22%]	76% [24%/53%]	69% [34%/41%]
ISD [Int. Conf. on Info. Systems Development]	39% [9%/22%]	22% [0%/11%]	41% [0%/24%]	38% [7%/21%]
Specialised IS Conferences				
DESRIST [Design Science Research in Info. Systems & Technology]	55% [8%/12%]	44% [11%/0%]	53% [6%/12%]	54% [8%/11%]
CHI [ACM Conf. on Human Factors in Computing Systems]	52% [8%/18%]	44% [0%/0%]	53% [6%/12%]	51% [7%/15%]
BPM [Int. Conf. on Business Process Management]	46% [9%/12%]	33% [0%/0%]	65% [12%/29%]	48% [9%/14%]
IFIP WG 8.3 [Decision Support Systems]	45% [5%/8%]	56% [22%/11%]	59% [6%/12%]	48% [7%/9%]
INTERACT [Int. Conf. on Human-Computer Interaction]	51% [5%/13%]	33% [0%/0%]	41% [6%/6%]	48% [5%/11%]
IFIP WG 8.2 [The Interaction of Info. Systems & the Organization]	46% [5%/12%]	56% [11%/11%]	41% [6%/6%]	46% [6%/11%]
IFIP WG 8.1 [Design & Evaluation of Info. Systems]	46% [5%/9%]	33% [0%/0%]	41% [6%/6%]	45% [5%/8%]
CAISE [Int. Conf. on Advanced Info. Systems Engineering]	43% [6%/8%]	33% [0%/0%]	47% [12%/18%]	43% [7%/9%]
Bled [Bled eConference]	43% [12%/7%]	56% [22%/0%]	35% [6%/6%]	43% [12%/7%]
IFIP WG 8.6 [Diffusion, Transfer & Implementation of Info. Technology]	42% [5%/9%]	44% [11%/11%]	35% [6%/0%]	41% [6%/8%]
OCIS [AoM Organizational Communication & Info.]	42% [4%/10%]	33% [0%/0%]	41% [6%/6%]	41% [4%/9%]
UIST [ACM Symposium on User Interface Software & Technology]	43% [2%/7%]	33% [0%/0%]	35% [6%/6%]	41% [2%/7%]
ISAIS [Int. Symposium on Accounting Info. Systems]	40% [4%/9%]	33% [0%/0%]	35% [6%/6%]	39% [4%/8%]
FOIS [Int. Conf. on Formal Ontology in Info. Systems]	35% [2%/5%]	33% [0%/0%]	35% [6%/6%]	35% [2%/5%]

Note: Generic and Specialised IS conferences as per ACPHIS recommended conferences list. General Engagement [Past Submission/Future Submission]; Ordered by number of IS researcher engagement (from high to low). Conf. = Conference; Info. = Information; Int. = International.

Table 8. Engagement with IS Conferences

Finally, Table 9 shows themes extracted from free-text comments about IS conferences. In total, 85 respondents provided free-text comments (69 academic staff, 7 adjunct/emeritus, 9 RHD candidates). In terms of the value of publishing at conferences, participants mentioned particularly idea development, networking, benefits for RHD candidates, developing journal articles, and the rapid publishing process. However, participants also mentioned the limited recognition from universities, limited time and funding for attendance, and mixed experiences as challenges for academics to engage in IS conferences. Three respondents emphasised the importance of hybrid modes, that is, blending the face-to-face attendance with an online option to address challenges around time and funding commitments (Tate et al., 2024).

Theme [Count] (Sentiment)	Exemplary Quotes
Limited Recognition [24] (-)	<i>"Does not count towards research minima." \ "[My university] shies away from conference publications for career success which, for my career goals, means I focus less on conference publications." \ "My institution actively discourages any conference publication."</i>
Idea Development [22] (+)	<i>"Conferences present opportunities for early feedback on ideas and projects." \ "I enjoy the feedback on short papers and the ability to develop my ideas and get initial feedback. I am then able to proceed with some confidence with my ideas." \ "As a first step to develop a coherent and comprehensive, theoretically grounded position."</i>
Networking [21] (+)	<i>"I think the lack of participation in conferences has let us not being able to engage with our peers. It has made us a poorer community. However, unless I fund myself I will not be able to go." \ "Attending conferences is important. Publishing or presenting in conferences is not." \ "The importance of the conference is the contacts I make." \ "It also allows for meeting with fellow researchers, including the new academics coming into the field, and discussing our relative research." \ "Publishing in IS conferences gets us into the IS community."</i>
Limited Time & Funding [17] (-)	<i>"For reasons of cost and convenience, I now try to only publish in journals." \ "Institutional support for conference attendance is harder than ever." \ "Not valued by my university, hard to find the money, hard to justify the time." \ "Unless I fund myself I will not be able to go."</i>
Benefits for RHD Students [15] (+)	<i>"Publishing at conference is a great 1st step for students to have their research peer reviewed." \ "IS conferences are important for my students (and to a lesser extent myself) to gain feedback on their research." \ "I do not submit to any conference, but my Ph.D. students find it useful as a first step in their publication strategy." \ "Moderately important from my viewpoint. Very important if I was responding to this question on behalf of a PhD student." \ "As a student, I am publishing primarily to improve my CV and strengthen my thesis." \ "Conferences are good opportunity for early airing of joint work with my PhD students."</i>
Journal Paper Pre-Stage [9] (+)	<i>"Getting feedback is important before journal submission." \ "Conference publishing seems a pre-requisite to A*Journal consideration." \ "Conferences are a playing field for testing ideas and the pre-stage of journal publishing, but are not valued by Uni management."</i>
Conference Scope [8] (+/-)	<i>"ACIS tends to be more Computer Science oriented." \ "Other conferences, e.g. Game Design conferences, are more important to me." \ "Many of my publications are in cross disciplines/fields, I believe, with cross fields publications, IS venues are the most suitable venues to publish my articles." \ "Even though I am in IS, my work has a more technical orientation than most. So, I do not often target the standard AIS conferences."</i>
Mixed Experience [6] (-)	<i>"It's a waste of time. The feedback you get is very poor and the attendance is usually variable." \ "I have found very little interest in my research whilst attending conferences." \ "Poor experience in the peer review process for ICIS, ECIS and PACIS. Much better peer review experience when going direct to journal."</i>
Hybrid Mode [3] (+)	<i>"For academic conferences to survive and remain viable in the future, I believe IS conferences need to move a hybrid model combination of face-to-face and online, as travel and accommodation has become much more expensive now." \ "Please use a hybrid model - allow accepted papers to be presented online at a cheaper registration cost." \ "There is a need for strategic thinking around hybrid conferences that allow remote attendance."</i>
Rapid Publishing Process [3] (+)	<i>"Journals take too long to be published - my field moves too quickly." \ "Quicker throughput. ACIS is too slow in the publication stage. Papers appear very late in the AIS library." \ "I find conferences largely useful for the quick reviewing process, but I am not interested in networking."</i>
Other [2] (+/-)	<i>"The IS discipline has a strong conference publication culture, papers are fully peer-reviewed with rigorous process." \ "ACIS is very close to ICIS making one sometimes having to choose."</i>

Note: Count refers to how many survey respondents mentioned the respective theme in their free-text comments. Themes are ordered based on the number of times they were mentioned in the free-text comments. + denotes positive and - denotes negative discourse.

Table 9. Themes in Free-text Comments about IS Conferences

5 Discussion

In its more than 60 years of history, the IS discipline in Australia and New Zealand has evolved along a range of socioeconomic and technical developments. Major developments in recent years include in particular accelerated digitisation initiatives throughout the economy in the aftermath of Covid19, generational and structural changes in the wake of widescale university restructuring, and the first revision of the government's research classification schemes in more than a decade. Motivated by a joint ACPHIS and PHIS-NZ workshop in September 2022 on these matters, the present study set out to establish the current state of the IS discipline in Australia and New Zealand. In the following, we first provide a brief summary of findings in response to the three overarching research questions stated in the introduction. We then broaden the discussion about the implications that emerge from the present study. Finally, we discuss limitations of this study along with concluding notes.

5.1 Summary of Findings for Overarching Research Questions

In terms of demographics (RQ1), our survey shows that about half of IS academics in Australia and New Zealand are based in business schools (55.7%), while the remainder are either within a dedicated ICT/IS/IT school (27.8%), or an engineering and/or science school (14.4%). The proportion in business schools is slightly higher in New Zealand (61.9%) than it is in Australia (53.9%). Thereby, the consolidated data show similar levels of IS groups outside business schools in comparison to historical data from 2006–2008, which stood at approximately 41.6% (Pervan & Shanks, 2008). The overall finding is thus aligned with historical positioning of IS within universities, that is, while there is a mix of locations for IS groups, the majority reside in business schools with a focus on organisations and IS professionals as the primary beneficiaries of their research (Pervan & Shanks, 2008). Notably, academics' time dedicated to research is higher in New Zealand than in Australia, particularly at the professorial level. Differences in the amount and nature of academics' administrative loads in Australia and New Zealand may explain this finding. Interestingly, the highest research FTE overall was reported by Lecturers. This might be explained by the notion that some universities equip new Lecturer appointments with an additional 10% FTE for research, and the limited service loads at this level. Finally, we provide an overview of median annual research publications and grant incomes. Here, we observe a notable jump in both median grant income and median publications from the lecturer to the professorial levels. Further, one can observe that while overall the median number of research publications is similar at the professorial levels, full professors have stronger track records of A*-ranked publications (0.8 vs. 0.3 per annum).

As for research activity in specific ANZSRC fields (RQ2), our survey provides evidence for the strong interdisciplinary nature of the IS discipline, both at the discipline and the individual level. Specifically, about 80% of IS researchers were active in both main FOR groups (3503, "Business Systems in Context"; 4609, "Information Systems"). Hence, it is not only that the IS discipline as a whole actively researches into both areas, but that also most IS academics do so at the individual level. This provides important evidence that these two FOR groups are inextricably linked. Also, only six of the respondents reported no research activity in either of these two FOR groups. Hence, as far as ANZSRC is concerned, we can conclude that by and large the two FOR groups 3503 and 4609 cover the bulk of IS research activity in Australia and New Zealand. Further, in line with the findings of Pervan and Shanks (2008), there is a strong focus on organisational aspects of IS. In fact, the four FOR fields reported by more than 40% of our survey respondents all directly relate to business and managerial aspects of IS (i.e.,

350303 Business IS, 350307 Technology Management, 35030202 Business Information Management, 460902 IS Organisation & Management).

In terms of research outside the two main IS FOR groups, several interesting insights emerge. On the business side, FOR group 3508 (“Strategy, Management & Organisational Behaviour”) stands out uniquely as the only group reported by more than 10% of respondents. On the computing side, we observe a more diverse picture with several areas yielding more than 10% of academic staff: 4602 (Artificial intelligence, AI), 4601 (Applied Computing), 4605 (Data Management & Data Science), 4604 (Cybersecurity & Privacy), and 4608 (Human-Centred Computing). This points to a focus of IS academics on challenges and opportunities emerging from technological developments. While Pervan and Shanks (2008) observed only limited research into technical issues (e.g., computer and network applications, groupware), we note a growing trend towards research into AI, business analytics, cybersecurity, and data science, which directly connect to recent advances in technology and digitisation in society more broadly (Vial, 2019). Finally, in terms of application areas, reported activity is mainly in the health and the education domain.

Finally, in terms of conference engagement (RQ3), our findings provide a clear picture of which IS conferences researchers in Australia and New Zealand engage with. The six generic conferences organised by AIS all yielded high engagement levels (except ISD). Naturally, the specialised conferences receive less attention than the generic conferences. ACIS, the peak conference for the Australasia region, received the highest engagement (89%). This provides important evidence for the strategic value proposition of ACIS for the Australasian region and beyond, particularly against the backdrop of reduced travel budgets and the major disruption that occurred with Covid-19. Also, although academics raised concerns over limited recognition from universities, funding, and time constraints, it is reassuring to see conference engagement to slightly increase (more future submissions than past submissions). Importantly, performance-based research funding in New Zealand recognises conference publications. This may explain why importance of conference publications is slightly higher than in Australia, irrespective of academic levels.

5.2 Implications for Research and Practice

Our results provide important implications for research and practice. Broadly speaking, our study provides contextual understanding of IS researcher engagement with current ANZSRC classification that may be used to inform the IS discipline’s strategic positioning within university structures and may assist in re-establishing its identity, research culture, and value proposition in a turbulent post-covid research landscape. However, there are also challenges that arise from the affiliation of IS within the university structure partly due to the focus of research on both business and computing research as a sociotechnical discipline. In the following, we formulate four propositions that we draw from our findings.

Proposition 1 - Champion Unique Identity of IS as a Sociotechnical Discipline.

Overall, our study provides important evidence for the unique identity of IS in Australia and New Zealand as a sociotechnical discipline, with essential links to both business and computing-focused research (Kautz, 2021; Lee, 2001; Sarker et al., 2019). In this vein, the sociotechnical focus of IS directly aligns with key challenges and opportunities that industry faces with ongoing technological advances. Yet, the unique sociotechnical identity also creates unique challenges for the strategic positioning of the IS discipline.

Specifically, our results show that about half of IS academics are based in business schools, with the remainder either based in engineering/science schools or dedicated ICT/IS/IT schools. Naturally, universities attempt to align department structures with established disciplinary classifications such as the ANZSRC (Hider & Coe, 2020). However, with the bulk of IS research occurring in *both* business and computing-focused FOR groups, these attempts repeatedly raise the question of where to best position IS within university structures. As noted by Hider and Coe (2020 p. 11), “interdisciplinary and transdisciplinary configurations may be aligning better with university interests”; yet it is vital for IS academics to champion the unique identity of IS as a sociotechnical discipline and articulate which benefits arise from such configurations for universities. Recent years have seen widescale university restructuring, including relocations of IS groups and individual IS academics within university structures. These developments require IS academics to continuously clarify the focus, research culture, and value proposition of the IS field to various stakeholders. The results around research focus may help to inform discussions around positioning of IS groups within university structures.

Proposition 2 –Curate the two IS-focused FOR Groups as Pillars for IS Research.

The fact that the bulk of IS research occurs in FOR groups of different divisions creates the challenge for the IS discipline to actively curate both FOR groups. On the one hand, this requires the IS discipline to directly liaise with the respective peak bodies linked to the neighbouring business (e.g., ABDC) and computing (e.g., CORE) FOR groups. On the other hand, this requires the IS discipline to continuously monitor to what extent the fields within the two FOR groups broadly capture IS research, and where adjustments may be required. Notably, our results show that the two generic “not elsewhere classified” FOR fields 350399 and 460999 ranked fifth and sixth in reported research activity. While our survey does not allow to discern which research specifically has been reported with these two generic FOR codes, their ranking within the top six warrant a debate within the IS discipline as to why the other available FOR codes were not able to cover this research to a higher extent. At the same time, it is noteworthy that two FOR fields were reported by less than 5% of respondents (359306 Forensic Science and Management, and 350305 Forensic Intelligence). Given the increasing importance of the cybersecurity field for IS research, it will be vital to monitor potential changes of activities within these fields over time. Also, there may be an increasing need to also include other areas not currently covered by the IS-focused FOR groups 3503 and 4609 (e.g., whether AI is adequately covered by existing FOR fields).

Importantly, the ANZSRC definitions for FOR Group 3503 and 4609 are rather broad, and there is no clarification provided on what specific FOR fields capture. This leaves the reading and use of specific FOR fields such as “Business Information Systems” and “Business Systems in Context” open for interpretation, both from within and outside the IS discipline. In fact, even though the present survey specifically recruited IS researchers, several participants reached out to the research team to request clarification on the meaning of specific FOR fields within the two major IS FOR groups. This lack of guidance on the nature of IS as a whole and the meaning of specific IS research fields is concerning as it opens room for related disciplines, government agencies, and funding bodies to develop and apply their own understanding of IS research. On the flipside, the lack of ANZSRC definitions and clarifications for specific IS FOR fields is an opportunity for the discipline to provide a clear positioning on the nature and importance for each of these research fields. Such a clarification would not only assist in

counteracting potential misinterpretations of the nature of IS research but also assist in internal strategic discussions around ongoing developments of the IS identity.

Proposition 3 – Enhance Recognition of IS Conferences to Maximize Engagement.

Our results provide evidence for the role of both peer-reviewed conference papers and journal articles as important publication avenues for IS researchers. On the one hand, we see a strong emphasis on top journal outlets, as evidenced from IS academics' focus on A* and A ranked journals, particular at higher levels of academic seniority (see Table 4).⁸ This is notably different from other technical fields such as computer science, where the peak body CORE decided to discontinue its journal rankings "due to limited resources" in March 2022 and instead exclusively directed efforts to its conference ranking. On the other hand, we see that unlike business-focused disciplines, peer-reviewed conference papers play an important role for IS academics; yet, arguably in a different way than for computer science. Specifically, our results show that 61% of IS academics rated conference publications as moderately important or higher for their research strategy. However, this importance decreases with progression in academic seniority (100% as Postdoc and Associate Lecturer level, 62.5% at (Senior) Lecturer level, 54.5% at (Associate) Professor level).

To maximize the engagement potential with IS conferences, it is important to understand its drivers (networking, idea development, benefits for RHD candidates) and inhibitors (limited recognition, limited funding). In terms of recognition and ability to secure funding, it is vital to provide IS academics with strategic guidance and evidence of quality. Notably, since 2019 CORE has not ranked IS conferences. ACPHIS does provide a list of recommended generic and specialised IS conferences, but the list has not been updated since its first release in 2014. Ten years on, our data shows that overall both the generic and also the specialised conference lists appear to be working well. Except for ISD, the general conferences yield submissions and readership from a wide range of IS academics. Naturally, submissions to specialised conferences are limited to academics with specific expertise (all below 20%), but readership remains strong (between 35% and 54%). In this sense, no conference stands out from our data as a potential candidate for removal. Yet, discussions around whether ISD should remain in the generic list or be moved to the specialised list may resurface. Also, one may think about the inclusion of IFIP WG 9.4 as the only specialised conference outside the existing list that was mentioned by more than two respondents. In any case, there is a need to update the conference recommendation lists as key assets of the IS community.

Proposition 4 – Leverage Data to Drive Positioning of the IS Discipline.

Over the decades, there have been repeated calls to develop a shared understanding of the history and current practice of the IS discipline (Hirschheim & Klein, 2012). An example is the comprehensive overview of the discipline's historical roots and ongoing developments in Australia in the late 2000s (Gable, 2008). To support this, it has been argued that a data-driven approach "will allow the [IS] discipline to present a cohesive front" (Ridley, 1997 p. 69) and "access increased power, status, and resources" (Ridley, 2006 p. 142). Yet, despite notable exceptions (e.g., Dang-Pham & Kautz, 2018, 2017; Smyth et al., 2016; Stead et al., 2020), there has been limited research over the past decade to leverage data collection and analysis to position the IS discipline in Australia and New Zealand. Towards this end, the present study

⁸ Background information on the discontinuation of the CORE Journal Ranking is available at: <https://www.core.edu.au/conference-portal/journal-rankings-history>

provides an example of how the IS discipline can collect empirical data to assess the current state of the IS discipline and derive meaningful insights.

Building on this, we argue that there is a need for the IS discipline in Australia and New Zealand to better leverage quantitative and qualitative data to inform its strategic positioning and ongoing development. As such, a data-driven approach may assist in the ongoing development of an IS core body of knowledge, articulating the value proposition of IS to key stakeholders (e.g., government, industry, university executives), and driving innovation in IS research culture (Hirschheim & Klein, 2012; Ridley, 2006). One way to support data-driven approaches could be through targeted initiatives that increase data accessibility and simplify interpretation. For instance, researchers could include their unique identifiers (e.g. ORCID, Scopus ID) not only in journal articles but also in IS conference publications. Further, IS researcher profiles (e.g., public Google Scholar, ORCID, and/or university website profiles) could clarify a focus on IS research and activity in specific FOR fields.

5.3 Future Work and Limitations

Considering the limitations of the present research, several promising research avenues for future work emerge.

Discipline Size. Naturally, even though we reached out to the IS discipline through three different recruitment channels, only a subset of IS researchers responded. However, without reliable estimates of the actual size of the IS discipline, it is not possible to determine a sample-to-population ratio and, hence, the generalizability of results needs to be considered with caution. Gable and Smyth (2007) identified a high-quality faculty directory as a strategic priority for the IS discipline. Yet, the current AIS Faculty Directory appears to be incomplete.⁹ Hence, there is a need for future research to estimate and monitor the size of the IS discipline. Complementary to actively managing a faculty directory, this may also include data-driven approaches that draw on researcher identifiers (e.g. ORCID, Scopus ID), electronic libraries (e.g. AISeL), and university profile pages. Given that not all scholars who published in an IS outlet would also consider themselves as an IS researcher, such a data-driven approach would need to carefully weigh up the likelihood that a researcher is in fact part of the IS discipline (e.g. relative percentages of articles in IS journals; engagement with IS conferences) and/or seek confirmation from researchers that they consider themselves part of the IS discipline.

Discipline Scope. It needs to be noted that our survey focused particularly on the two main FOR Groups for IS research (3503 and 4609), which are primarily concerned with organisational aspects of IS. Similarly, already Pervan and Shanks (2008) found that IS researchers focus mostly on organisations and significantly less on IS at the national or global levels. Given that our study built on the ANZSRC structure, respondents could only report research beyond the specific FOR fields within these groups by referring to the two generic “not elsewhere classified” FOR fields 350399 and 450999 and/or by additionally selecting other FOR Groups (within the business and computing divisions, or beyond). This could have led to an under-representation of IS research beyond the non-generic fields listed within 3503 and 4609. While the two generic codes ranked fifth and sixth overall, it is not possible for us to discern whether these captured research beyond the organisational context and, if so, which ones in particular. Hence, there is a need for future research to discern to what extent the scope

⁹ As of 7 June 2024, the AIS Faculty Directory lists 190 academics for Australia and 53 academics for New Zealand (<https://directory.aisnet.org>). As such, the directory exhibits gaps and the levels of the listed academics are not clear.

of the IS discipline in Australia and New Zealand includes areas beyond the organisational context (applications and impacts beyond organisational boundaries, data modelling, software engineering), and whether this scope is adequately reflected in the ANZSRC.

At a broader level, Clarke (2008) listed seven main thematic clusters in Australian IS research since 1965 (with cross-fertilisation among the themes): 1) technology as enabler and driver; 2) applications of technology; 3) data management; 4) organisations; 5) systems thinking; 6) business-school thinking; and 7) information management (p. 52). Gable et al. (2008) engaged in qualitative coding of ACIS paper into 32 topics derived from Barki et al. (1993) and Palvia et al. (2004). Stead et al. (2020) classified their coding into the broader four categories: technical, behavioural/managerial, educational (i.e., IS curriculum related) and other (predominantly research method papers). Future research may explore how these different categorisations can be mapped to the FOR fields defined in the ANZSRC, and possible refinements thereof.

Research Methods. In order not to further extend the survey length, we chose not to include questions around research methodology (e.g., qualitative, quantitative), unit of analysis and beneficiaries (e.g., organisation, industry, individuals), and types of research grants (e.g., ARC, industry, internal). Future studies may build on the present survey to explore potential methodological differences in how IS scholars research into different FOR fields, and their underlying epistemology. For instance, while our research shows that about 20% of IS academic staff research into FOR Group 4602 (AI), the nature of this research is not clear (e.g. development of AI solutions, understanding the societal impacts of AI). Future research may employ targeted studies (e.g., bibliometric, surveys) to provide insights into the nature of IS research in different application areas (Pervan & Shanks, 2008; e.g., Ridley & Keen, 1998). These insights on the methods employed by IS researchers will be important to further our understanding of the nature and scope of IS research.

Longitudinal Assessments. Finally, even though we have made substantial effort to survey the current state of IS research in Australia and New Zealand, we acknowledge that the reported snapshot may not be complete and is subject to ongoing change. As such, it is important to gain a deeper understanding of historical IS research trends and characteristics through tracking research interests both at the discipline and the individual researcher level (Gable, Smyth, et al., 2008; Ridley et al., 1997; Stead et al., 2020). To capture changes in relation to IS key areas of research focus, research output overviews at different academic levels, and overview of the general and specialised conferences that IS researchers engage with, there is an ongoing need to regularly engage in further data collection efforts (e.g., regular surveys to investigate trends over time). To the best of our knowledge, the last survey-based longitudinal analysis of IS research activity in Australia dates back to Pervan and Shanks (2008).

6 Concluding Note

Over the past 60 years, IS researcher and practitioners in Australia and New Zealand have repeatedly felt compelled to justify the importance and legitimacy of IS as a sociotechnical discipline (Smyth et al., 2016). Almost a decade ago, Gable et al. (2016 p. 693) “sensed a growing tension between the disciplines and institutions that seek increased allegiance from individuals in the face of increasingly demanding organisational key performance indicators and new directions.” With accelerating digitisation and emergence of new disruptive technologies such as generative AI, other disciplines increasingly consider sociotechnical phenomena that occur at the nexus of technology and society. Yet again, this raises important

questions for the IS discipline's positioning and value proposition. Through the collection and analysis of evidence, studies like ours may serve as a possible vehicle of discipline reinforcement (Gable et al., 2016; Smyth et al., 2016). In this sense, we hope that the evidence presented in this paper, and the four propositions we have drawn from it, will aid in reinvigorating discussions within the IS academic community on "where we are, where we want to be in the future, and how we aim to get there" (Pervan & Shanks, 2008, p. 304).

References

- ALIA. (2019). *ALIA Submission in Response to the Review of the ANZ Standard Research Classification*. Australian Library and Information Association (ALIA).
- Barki, H., Rivard, S., & Talbot, J. (1993). A keyword classification scheme for IS research literature: An update. *MIS Quarterly*, 17(2), 209–226. <https://doi.org/10.2307/249802>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Bunker, D. (2014). President's Report. *Australian Council of Professors and Heads of Information Systems (ACPHIS)*, 1–5.
- Cheong, F., & Corbitt, B. (2009). A social network analysis of the co-authorship network of the Australasian conference of information systems from 1990 to 2006. *ECIS 2009 Proceedings*, 1–13.
- Clarke, R. (2006). Key aspects of the history of the information systems discipline in Australia. *Australasian Journal of Information Systems*, 14(1), 123–140. <https://doi.org/10.3127/ajis.v14i1.12>
- Clarke, R. (2008). A retrospective of the information systems discipline in Australia. In G. G. Gable, S. Gregor, R. Clarke, G. Ridley, & R. W. Smyth (Eds.), *The Information Systems Academic Discipline in Australia* (pp. 47–107). ANU E Press.
- Clarke, R. (2009). A citation analysis of Australian information systems researchers: Towards a new ERA? *Australasian Journal of Information Systems*, 15(2), 23–44. <https://doi.org/10.3127/ajis.v15i2.465>
- Dang-Pham, D., & Kautz, K. (2018). A social network analysis of co-authorship at the Australasian Conference on Information Systems (ACIS) from 1990 to 2016. *ACPHIS*, 1–70.
- Dang-Pham, D., & Kautz, K. (2017). Exploring the ACIS community through the analysis of co-authorship across institutions. *ACIS 2017 Proceedings*, 1–11.
- Fisher, J., Shanks, G., & Lamp, J. W. (2007). A ranking list for information systems journals. *Australasian Journal of Information Systems*, 14(2), 5–18. <https://doi.org/10.3127/ajis.v14i2.469>
- Gable, G. G. (2006). The information systems discipline in Australian universities: A contextual framework. *Australasian Journal of Information Systems*, 14(1), 103–122. <https://doi.org/10.3127/ajis.v14i1.11>
- Gable, G. G. (2007). The information systems academic discipline in Australia. *Communications of the Association for Information Systems*, 21, 23–48. <https://doi.org/10.17705/1CAIS.02102>
- Gable, G. G. (2008). The information systems discipline in Australian universities: A contextual framework. In G. G. Gable, S. Gregor, R. Clarke, G. Ridley, & R. W. Smyth (Eds.), *The Information Systems Academic Discipline in Australia* (pp. 3–45). ANU E Press.
- Gable, G. G., Gregor, S., Clarke, R., Ridley, G., & Smyth, R. W. (2008). *The Information Systems Academic Discipline in Australia*. ANU E Press. <https://doi.org/10.22459/ISADA.09.2008>

- Gable, G. G., & Smyth, R. W. (2007). The state of the IS academic discipline in Pacific Asia: Methodological learnings. *Communications of the Association for Information Systems, 21*, 166–194. <https://doi.org/10.17705/1CAIS.02109>
- Gable, G. G., Smyth, R. W., & Gable, A. (2016). The role of the doctoral consortium: An information systems signature pedagogy? *Communications of the Association for Information Systems, 38*, 678–711. <https://doi.org/10.17705/1CAIS.03833>
- Gable, G. G., Smyth, R. W., & Stark, K. (2008). An archival analysis of ACIS research papers. *ACIS 2008 Proceedings*, 1–10. <https://aisel.aisnet.org/acis2008/54>
- Hider, P., & Coe, M. (2020). Disciplines in their organisational context: Mapping Australian faculty structures to the ASCED and ANZSRC fields of education and research. *Australian Universities' Review, 62*(1), 10–17.
- Hirschheim, R., & Klein, H. K. (2012). A glorious and not-so-short history of the information systems field. *Journal of the Association for Information Systems, 13*(4), 188–235. <https://doi.org/10.17705/1jais.00294>
- Joung, S., Yeongwha, S., & Jeong, E. (2020). Verifying the classification accuracy for Korea's standardized classification scheme of research F&E by using LDA. *Management & Information Systems Review, 39*(1), 35–57. <https://doi.org/10.29214/damis.2020.39.1.003>
- Kautz, K. (2021). Editorial for the Australasian Journal of Information Systems 2021: Volume 25. *Australasian Journal of Information Systems, 25*, 1–8.
- Lee, A. S. (2001). Editor's comments: Research in information systems - What we haven't learned. *MIS Quarterly, 25*(4), v–xv.
- Lehmann, H., & Huff, S. L. (2007). The information systems academic discipline in New Zealand. *Communications of the Association for Information Systems, 21*, 87–103. <https://doi.org/10.17705/1CAIS.02105>
- MacGregor, R. (1993). Editorial. *Australasian Journal of Information Systems, 1*(1). <https://doi.org/10.3127/ajis.v1i1.426>
- Niederman, F., & March, S. T. (2012). Design science and the accumulation of knowledge in the information systems discipline. *ACM Transactions on Management Information Systems, 3*(1), 1–15.
- Orlikowski, W. J., & Baroudi, J. J. (1991). Studying information technology in organizations: Research approaches and assumptions. *Information Systems Research, 2*(1), 1–28. <https://doi.org/10.1287/isre.2.1.1>
- Palvia, P., Leary, D., Mao, E., Midha, V., Pinjani, P., & Salam, A. F. (2004). Research methodologies in MIS: An update. *Communications of the Association for Information Systems, 14*, 526–542. <https://doi.org/10.17705/1CAIS.01424>
- Pervan, G., & Cecez-Kecmanovic, D. (2001). The status of information systems research in Australia: Preliminary results. *ACIS 2001 Proceedings*, 1–4.
- Pervan, G., & Shanks, G. (2006). The 2005 survey of information systems research in Australia. *Australasian Journal of Information Systems, 14*(1), 273–279. <https://doi.org/10.3127/ajis.v14i1.22>
- Pervan, G., & Shanks, G. (2008). A longitudinal study of information systems research in Australia. In G. G. Gable, S. Gregor, R. Clarke, G. Ridley, & R. W. Smyth (Eds.), *The Information Systems Academic Discipline in Australia* (pp. 295–305). ANU E Press.
- Ridley, G. (1997). The role of conferences and refereed journals in Australian information systems research. *Australasian Journal of Information Systems, 5*(1), 69–81. <https://doi.org/10.3127/ajis.v5i1.351>

- Ridley, G. (2000). *Information Systems Research in Australia: Development and Diversity, 1980-1996*. University of Tasmania.
- Ridley, G. (2006). Characterising information systems in Australia: A theoretical framework. *Australasian Journal of Information Systems*, 14(1), 141–162. <https://doi.org/10.3127/ajis.v14i1.13>
- Ridley, G., Gable, G. G., Smyth, R. W., Gregor, S., & Clarke, R. (2008). The information systems academic discipline in Australian universities: A meta-analysis. In G. G. Gable, S. Gregor, R. Clarke, G. Ridley, & R. W. Smyth (Eds.), *The Information Systems Academic Discipline in Australia* (pp. 307–339).
- Ridley, G., Goulding, P., Lowry, G., & Pervan, G. (1998). The Australian information systems research community: An analysis of mainstream publication outlets. *Australasian Journal of Information Systems*, 5(2), 69–80. <https://doi.org/10.3127/ajis.v5i2.345>
- Ridley, G., Goulding, P., Lowry, G., & Pervan, G. (1997). Australian IS publications: A profile of institutions, authors and collaboration, 1990-1996. *ACIS 1997 Proceedings*, 273–287.
- Ridley, G., & Keen, C. (1998). Epistemologies for information systems research: A study of change. *ACIS 1998 Proceedings*, 520–533.
- Sarker, S., Chatterjee, S., Xiao, X., & Elbanna, A. (2019). The sociotechnical axis of cohesion for the IS discipline: Its historical legacy and its continued relevance. *MIS Quarterly*, 43(3), 695–719. <https://doi.org/10.25300/MISQ/2019/13747>
- Sellitto, C. (2007). A study of publication performance in ACPHIS identified journals. *ACIS 2007 Proceedings*, 294–303.
- Smyth, R. W., Gable, G. G., & Pervan, G. (2016). A SWOT analysis of the IS academic discipline in Australia. *ACIS 2016 Proceedings*, 1–12.
- Stead, C., Smith, S., Busch, P., & Vatanasakdakul, S. (2020). Thirty years of ACIS proceedings: An archival analysis. *ACIS 2020 Proceedings*, 1–8. <https://aisel.aisnet.org/acis2020/19>
- Tate, M., Zwanenburg, S., & Clarke, R. J. (2024). Generating stakeholder value through increasingly hybridized conferences: Insights from 30 years of ACIS conferences. *Communications of the Association for Information Systems*, 54(1), 1–15.
- Tremblay, M.-A. (1957). The key informant technique: A nonethnographic application. *American Anthropologist*, 59(4), 688–701.
- Vancauwenbergh, S., & Poelmans, H. (2019). The creation of the Flemish research discipline list, an important step forward in harmonising research information (systems). *Procedia Computer Science*, 146, 265–278. <https://doi.org/10.1016/j.procs.2019.01.075>
- Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *The Journal of Strategic Information Systems*, 28(2), 118–144. <https://doi.org/10.1016/j.jsis.2019.01.003>

Appendix

A1 Survey Structure

In line with the three main objectives of the survey, the final survey comprised three blocks. The first block of questions surveyed Information Systems (IS) researcher demographics in terms of the researcher's affiliation in Australia or New Zealand, their department within their organisation, their gender identity, their career stage relative to Doctor of Philosophy (PhD)

completion, their current role, their research publications, and their individual research grant income.

The second block surveyed research activity in relation to the Australian and New Zealand Standard Research Classification (ANZSRC) Field of Research (FOR) Code system over the three-year period of 2020 to 2022. This included research activity specifically in the IS-related FOR Group 3503 (Business Systems in Context) and FOR Group 4609 (Information Systems). For each 6-digit FOR code within FOR Groups 3503 and 4609, participants were asked to report their research activity (0 = not active, 1 = somewhat active, 2 = active, 3 = very active). This was followed by optional questions regarding research activity in other business or computing FOR Groups. Finally, participants could optionally also mention research activity in any other FOR Group not previously mentioned.

The third block surveyed engagement with generic and specialised IS conferences using the set of recommended conferences by the Australian Council of Professors and Heads in Information Systems (ACPHIS). Further, participants were able to additionally mention up to five other IS conferences not mentioned in the ACPHIS recommended conference list. In addition, participants rated the importance of publishing at IS conferences for their research strategy (five-point scale; 0 = not at all important, 4 = extremely important). The survey concluded with optional free-text comments on (1) the importance of IS conferences to them, (2) general comments on IS research and/or conference, and (3) feedback on the survey.

A2 Survey Instrument

A2.1 Introduction

Thank you for considering participating in this survey! The purpose of the research is to create an overview of Information Systems (IS) research in Australia and New Zealand, in terms of

- 1) Research activity in particular Field of Research (FOR) codes as defined by the 2020 Australian and New Zealand Standard Research Classification (ANZSRC);
- 2) Engagement of IS researchers with conferences; and
- 3) Demographics of IS researchers in Australia and New Zealand.

We are recruiting people aged 18 years and older with a primary research affiliation at an Australian or New Zealand university who engage in IS research. This includes **academics** (ongoing, contract, postdoc, emeritus, or adjunct) and **research higher degree** students (MPhil or PhD candidates). The survey takes about **10 to 20 minutes** to complete (depending on how many of the optional questions you choose to answer).

If you are ready, please proceed to the participant information statement.

A2.2 Information Statement

Dear potential research participant,

You are invited to participate in the research project noted above which is being conducted by researchers from the University of Newcastle in collaboration with Deakin University. The

information below provides more detail about the study and how you can participate, if you choose to do so.

A2.2.1 What is the research study about?

The purpose of the research is to create an overview of Information Systems (IS) research in Australia and New Zealand, in terms of: 1) Research activity in particular Field of Research (FOR) codes as defined by the Australian and New Zealand Standard Research Classification (ANZSRC) 2020; 2) Engagement of IS researchers with conferences; and 3) Demographics of IS researchers in Australia and New Zealand. The need for this survey was identified during a joint workshop of the Australian Council of Professors and Heads of Information Systems (ACPHIS) and the Professors and Heads of Information Systems New Zealand (PHIS-NZ) in September 2022.

A2.2.2 Who is conducting the research?

This research project is being conducted by researchers from the University of Newcastle's School of Information and Physical Sciences, in collaboration with A/Prof Sultana Lubna Alam from Deakin University.

A2.2.3 Who can participate in the research?

This research study is recruiting people aged 18 years and older who engage in IS research with a primary research affiliation at an Australian or New Zealand university. This includes academics (ongoing, contract, postdoc, emeritus, or adjunct) and research higher degree students (MPhil or PhD candidates). You receive the invitation to participate because:

- a) Your name was identified using a web search using Google, a university website, or professional network (LinkedIn, ResearchGate, Twitter) that indicated potential research activity in the IS research field; or
- b) This invitation was sent to a research community mailing list that you are signed up to;
- c) It was forwarded to you by someone who had received an invitation and this person felt that the survey could be of interest to you.

People who cannot participate include those who do not have a primary research affiliation with a university in Australia or New Zealand, or who do not engage in IS research.

A2.2.4 What does participation involve?

If you agree to participate, you will be asked to complete an anonymous online survey about 1) your research activity in particular FOR codes, 2) your engagement with conferences, and 3) general demographics. The survey should take approximately 10 to 20 minutes to complete. The survey must be completed in a single session.

Please also consider forwarding the invitation that you received to participate in this study to other potential participants in your network. Please do not directly forward any contact details of other potential participants to the researchers.

A2.2.5 Do you have to take part in this research study?

No. Participation in this research study is voluntary. If you do not want to take part, you do not have to. If you decide to participate and later change your mind, you are free to withdraw from the study at any time prior to submitting your completed survey. Due to the anonymous

nature of the survey, if you decide to withdraw from the project after submitting a completed survey, we cannot withdraw your responses.

A2.2.6 What is the benefit of participating in this research study?

By participating in this survey, you will have the opportunity to help the wider IS research community to create an overview of the current state of IS research in Australia and New Zealand. This will include important information about research activity in the different FOR codes, engagement with conferences, and general demographics of IS researchers in Australia and New Zealand.

A2.2.7 Are there any risks involved in participating in this research?

There are no anticipated risks associated with participating in this research.

A2.2.8 How will your privacy be protected?

Due to the anonymous nature of the survey, the responses you provide will not be identifiable. The online survey will be hosted by QuestionPro online survey platform via a secure encrypted connection as outlined in their privacy policy. Data will be retained securely for a minimum period of 5 years from the completion of the research project. Information will be managed and stored in accordance with the University's Research Data and Materials Management Guideline or any successor Guideline as well as any other applicable University of Newcastle policy provisions. Data will be securely destroyed in line with UON policy provisions. A copy of the data used for analysis will be held at the University of Newcastle.

A2.2.9 How will information collected by the research team be used?

The information will be collated and analysed and may be presented in academic publications, at conferences or in articles. Your participation in the research is anonymous and your specific responses will not be identifiable. If you would like a copy of the summary of the results, please record your details using the separate link which will be provided at the end of the main survey. This information is collected and stored separately from your completed survey data. Individual participants will not be identifiable in any of the outputs generated from the research project, but individual anonymous responses may be quoted. Non-identifiable data may be shared with other parties as part of a peer-review process to verify the robustness and integrity of the study, or to contribute to further research and public knowledge.

A2.2.10 What you need to do in order to participate?

Read this Information Statement in its entirety and be sure you understand all of the information provided before you agree to participate. If there is anything you do not understand, or if you have questions, contact A/Prof Marc Adam, marc.adam@newcastle.edu.au. If you would like to participate, please use the provided link and complete the online survey. If this document was provided in an electronic form you are encouraged to retain a copy for your reference. Completion and submission of the survey will be taken as your implied consent to participate.

A2.2.11 Do you need more information?

If you would like more information about this research project, please contact A/Prof Marc Adam, marc.adam@newcastle.edu.au.

Thank you,

A/Prof Marc Adam,

The University of Newcastle, Australia

Concerns or complaints about this research

This project has been approved by the University of Newcastle's Human Research Ethics Committee, Approval No. H-2022-0367. If you have concerns about your rights as a participant in this research, or if you have a complaint about the manner in which the research is conducted, you can contact the Chief Investigator A/Prof Marc Adam, marc.adam@newcastle.edu.au.

If you would prefer to contact someone independent of the research project, you can forward your concerns to:

Human Research Ethics Officer
Research and Innovation Services
University of Newcastle
University Drive
Callaghan NSW 2308, Australia
P: (02) 4921 6333
E: Human-Ethics@newcastle.edu.au

I have read the information statement, am over 18 and have a primary research affiliation at an Australian or New Zealand university. I agree to participate in the above research project and give my consent freely.

- Hereby, I consent that my answers can be used for research purposes.
- I do not consent. [→ Terminate Survey]

A3 Demographics

DEM1. Country of your primary research affiliation

- Australia
- New Zealand

DEM2a. Primary research affiliation in Australia [if DEM1 = Australia]

[Pull-down list of Australian universities]

DEM2b. Primary research affiliation in Australia [if DEM1 = New Zealand]

[Pull-down list of New Zealand universities]

DEM3. Department within the structure of your primary research affiliation.

- Business School / Faculty / College
- Business & Engineering School / Faculty / College
- Engineering School / Faculty / College
- Engineering & Science School / Faculty / College
- ICT/IS/IT School / Faculty / College
- Science School / Faculty / College
- Other [free-text option]

DEM4. Gender identity

- Woman
- Man
- Non-binary
- Prefer not to answer
- Other [free-text option]

DEM5. Career stage relative to PhD completion.

[If you have multiple PhDs, please respond relative to your PhD completion that is most closely related to the IS discipline.]

- Senior Career Researcher (more than 15 years post PhD)
- Mid Career Researcher (6 to 15 years post PhD)
- Early Career Researcher (0 to 5 years post PhD)
- Currently enrolled in PhD or MPhil
- N/A

DEM6. Current role at your primary research affiliation

[For emeritus and/or adjunct roles, please select your academic level. A subsequent question will address the status of your role (i.e., ongoing, contract, emeritus, adjunct).]

- Professor
- Associate Professor
- Senior Lecturer
- Lecturer
- Associate Lecturer
- PostDoc
- PhD Candidate
- MPhil Candidate
- Other

DEM7. Current status of your role at your primary research affiliation

- Ongoing
- Contract
- Stipend/Scholarship
- Emeritus (/retired)
- Adjunct
- Other [free-text option]

DEM8. What is the length of your contract? [if DEM7 = Contract]

- 5 years
- 4 years
- 3 years
- 2 years
- 1 year
- 6 months
- Other [free-text option]

DEM9. What is the full-time equivalent (FTE) of your role at your primary research affiliation?

- 100% (Full Time)
- 90%
- 80%
- 70%
- 60%
- 50%
- 40%
- 30%
- 20%
- 10%
- 5%

Other [free-text option]

DEM10: Over the **past three (3) years (2020-2022)**, what full-time equivalent (FTE) percentage of your time has been **dedicated to research**.

[For teaching & research academics, the FTE dedicated to research is commonly 40%. For teaching-intensive academics, it is often 20%. If you are in a part-time role, please adjust relative to your part-time load. For instance, if you are on an 80% role with 40% research focus, the FTE dedicated to research is 32%. If you are research active at several institutions, please consider the total FTE that you dedicate to research.]

2022: [pull-down menu: 0-100%]

2021: [pull-down menu: 0-100%]

2020: [pull-down menu: 0-100%]

DEM11: Over the **past three (3) years (2020-2022)**, how many peer-reviewed journal articles (C1) have you published in different **Australian Business Deans Council (ABDC) ranking** categories?

[ABDC Journal ranking is available here: <https://abdc.edu.au/research/abdc-journal-quality-list>]

	A* Journal (ABDC)	A Journal (ABDC)	B Journal (ABDC)	C Journal (ABDC)	Journal not ranked by ABDC
Number of C1 articles	[numeric input]	[numeric input]	[numeric input]	[numeric input]	[numeric input]

DEM12: Over the **past three (3) years (2020-2022)**, how many peer-reviewed **conference papers (E1)** have you published?

	Generic IS Conferences (ACIS, AMCIS, ECIS, HICSS, ICIS, ISD, PACIS)	Other Conferences
Number of E1 articles	[numeric input]	[numeric input]

DEM13: Over the past three (3) years (2020-2022), how many peer-reviewed book chapters (B1) have you published?

[numeric input]

DEM14: Over the **past three (3) years (2020-2022)**, what was the sum of your **individual research grant income**? (i.e., the individual contribution that you accumulated over the three year period, **not** the total amount of the grants across all investigators) [Don't show question for MPhil or PhD Candidates]

[Example: Consider a \$200k grant that you have been awarded for the year of 2021 (one-year grant) as part of a team of five researchers. Assuming that your contribution to that team was 20%, then your individual research income from this grant would be \$40k in 2021. Conversely, if you were the sole investigator (no team) and the grant ran over four years (2021-2024), then your individual grant income would be \$50k in 2021, and \$50k in 2022 (\$100k in total from this grant for the 2020-2022 period). The years of 2023 and 2024 are not considered in this survey as it only focuses on 2020-2022.]
[Amount in AU\$ or NZ\$ depending on whether your primary research affiliation is in Australia or New Zealand.]

AU\$/NZ\$ [numeric input]

A4 Research Activity

Research Activity in IS-related FOR Codes (3503 and 4609)

Within the ANZSRC FOR-Code system, there are two main 4-digit codes linked to IS research:

- 3503 (Business Systems in Context)
- 4609 (Information Systems)

RES1: Over the past three (3) years (2020-2022), what was your level of research activity for each of the 6-Digit FOR codes within 3503.

[No selection of a particular FOR-code will be interpreted as no research activity in the respective area.]

	Not active	Somewhat active	active	Very active
350301 (Business analytics)				
350302 (Business information management; incl. records, knowledge and intelligence)				
350303 (Business information systems)				
350304 (Business systems in context)				
350305 (Forensic intelligence)				
350306 (Forensic science and management)				
350307 (Technology management)				
350399 (Business systems in context not elsewhere classified)				

RES2: Over the past three (3) years (2020-2022), what was your level of research activity for each of the 6-Digit FOR codes within 4609.

[No selection of a particular FOR-code will be interpreted as no research activity in the respective area.]

	Not active	Somewhat active	active	Very active
460901 (Business process management)				
460902 (Decision support and group support systems)				
460903 (Information modelling, management and ontologies)				
460904 (Information security management)				
460905 (Information systems development methodologies and practice)				
460906 (Information systems education)				
460907 (Information systems for sustainable development and the public good)				
460908 (Information systems organisation and management)				
460909 (Information systems philosophy, research methods and theory)				
460910 (Information systems user experience design and development)				
460911 (Inter-organisational, extra-organisational and global information systems)				
460912 (Knowledge and information management)				
460999 (Information systems not elsewhere classified)				

Optional: Research Activity in other FOR Codes (outside 3503 and 4609)

RES3 (Optional): Select up to five **Business FOR Codes** that you have been research active in over the **past three (3) years (2020-2022)**. For each of the selected FOR codes, indicate **your level of research activity** within that area.

[If you have not been research active in any of these areas, please leave this question empty.]

	Business FOR-Code (6 Digit)	Not active	Somewhat active	active	Very active
Business FOR-Code #1	[Pull-down: all 6-digit codes under 3501, 3502, 3504–3509, 3801–3803, and 3899]				
Business FOR-Code #2	[Pull-down: all 6-digit codes under 3501, 3502, 3504–3509, 3801–3803, and 3899]				
Business FOR-Code #3	[Pull-down: all 6-digit codes under 3501, 3502, 3504–3509, 3801–3803, and 3899]				
Business FOR-Code #4	[Pull-down: all 6-digit codes under 3501, 3502, 3504–3509, 3801–3803, and 3899]				
Business FOR-Code #5	[Pull-down: all 6-digit codes under 3501, 3502, 3504–3509, 3801–3803, and 3899]				

RES4 (Optional): Select up to five **Computing FOR codes** that you have been research active in over the **past three (3) years (2020-2022)**. For each of the selected FOR codes, indicate **your level of research activity** within that area.

[If you have not been research active in any of these areas, please leave this question empty.]

	Business FOR-Code (6 Digit)	Not active	Somewhat active	active	Very active
Computing FOR-Code #1	[Pull-down: all 6-digit codes under 4601–4608, 4610–4613, and 4699]				
Computing FOR-Code #2	[Pull-down: all 6-digit codes under 4601–4608, 4610–4613, and 4699]				
Computing FOR-Code #3	[Pull-down: all 6-digit codes under 4601–4608, 4610–4613, and 4699]				
Computing FOR-Code #4	[Pull-down: all 6-digit codes under 4601–4608, 4610–4613, and 4699]				
Computing FOR-Code #5	[Pull-down: all 6-digit codes under 4601–4608, 4610–4613, and 4699]				

RES5 (Optional): Select up to five 4-digit FOR codes **outside IS, Business, and Computing** that you have been research active in over the **past three (3) years (2020-2022)**. For each of the selected FOR codes, indicate **your level of research activity** within that area.

[If you have not been research active in any of these areas, please leave this question empty.]

	Business FOR-Code (6 Digit)	Not active	Somewhat active	active	Very active
#1	[Pull-down: all 4-digit codes outside 35 and 46]				
#2	[Pull-down: all 4-digit codes outside 35 and 46]				
#3	[Pull-down: all 4-digit codes outside 35 and 46]				
#4	[Pull-down: all 4-digit codes outside 35 and 46]				
#5	[Pull-down: all 4-digit codes outside 35 and 46]				

A5 IS Conferences

CONF1: How important is publishing at IS conferences for your research strategy?

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

CONF2 (Optional): Please elaborate on your answer to the previous question on the importance of publishing at IS conferences for your research strategy.

[free-text response]

CONF3: Please indicate your level of interest and engagement with regard to the following **Generic IS Conferences**.

[Please consider the three (3) year period from 2020 to 2022 when referring to "the past".]

	I do not (or hardly ever) engage with this conference.	I read papers but do not submit (neither in past or in the future).	Submitted in the past but <u>will not submit</u> in the future.	Have not submitted in the past, but <u>plan to submit</u> in the future.	Submitted in the past and <u>plan to submit</u> in the future.
<i>Australasian Conference on Information Systems (ACIS)</i>	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
<i>Americas Conference on Information Systems (AMCIS)</i>	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
<i>European Conference on Information Systems (ECIS)</i>	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
<i>Hawaii International Conference on System Sciences (HICSS)</i>	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
<i>International Conference on Information Systems Development (ISD)</i>	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
<i>International Conference on Information Systems (ICIS)</i>	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
<i>Pacific Asia Conference on Information Systems (PACIS)</i>	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]

CONF4: Please indicate your level of interest and engagement with regard to the following **Specialised IS Conferences**.

[Please consider the three (3) year period from 2020 to 2022 when referring to "the past".]

	I do not (or hardly ever) engage with this conference.	I read papers but do not submit (neither in past or in the future).	Submitted in the past but <u>will not submit</u> in the future.	Have not submitted in the past, but <u>plan to submit</u> in the future.	Submitted in the past and <u>plan to submit</u> in the future.
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ACM Conference on Human Factors in Computing Systems (CHI)	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
ACM Symposium on User Interface Software and Technology (UIST)	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
AoM Organizational Communication and Information (OCIS)	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
Bled eConference	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
International Conference on Advanced Information Systems Engineering (CaiSE)	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
International Conference on Business Process Management (BPM)	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
International Conference on Design Science Research in Information Systems and Technology (DESRIST)	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
International Conference on Formal Ontology in Information Systems (FOIS)	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
International Conference on Human-Computer Interaction (INTERACT)	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
International Symposium on Accounting Information Systems (ISAIS)	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
IFIP WG 8.1 – Design and Evaluation of Information Systems	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
IFIP WG 8.2 – The Interaction of Information Systems and the Organization	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
IFIP WG 8.3 – Decision Support Systems	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
IFIP WG 8.6 – Diffusion, Transfer and Implementation of Information Technology	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]

CONF3 (Optional): If there are any **Other IS conferences** that you have an interest and/or engagement with, please list up to five of those in the table below.

[Please consider the three (3) year period from 2020 to 2022 when referring to "the past".]

	I do not (or hardly ever) engage with this conference.	I read papers but do not submit (neither in past	Submitted in the past but will not submit in the future.	Have not submitted in the past, but plan to submit in the future.	Submitted in the past and plan to submit in the future.
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		or in the future).			
#1 [Enter Conference Name]	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
#2 [Enter Conference Name]	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
#3 [Enter Conference Name]	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
#4 [Enter Conference Name]	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]
#5 [Enter Conference Name]	[tick one]	[tick one]	[tick one]	[tick one]	[tick one]

A6 Comments

Optional: Do you have any **additional comments** about IS research and/or conferences that you would like to share?

(e.g. challenges and opportunities for the IS discipline in Australia and New Zealand, future of conferences, etc)

[Multiple Row Answer text]

Optional: General **suggestions and comments** about the design and analysis of this survey

[Multiple Row Answer text]

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