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IN SEARCH OF THE PRIMARY SUPPLIERS OF IS RESEARCH: WHO ARE THEY AND WHERE DID THEY COME FROM?

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ABSTRACT

The purpose of this study was to determine the leading IS researchers and the universities that supply them. We reviewed publications from the seven leading IS journals (*CAIS*, *DSS*, *Information & Management*, *ISR*, *J AIS*, *JMIS*, and *MIS Quarterly*) during calendar years 2001 to 2005. During that time, 2,401 authors contributed toward 1,486 published articles. We believe our findings to be valuable to the field of IS research by providing a means for assessing research productivity within the IS field.

Keywords: Information systems; information systems research; research productivity; academic research; tenure; promotion

I. INTRODUCTION

High quality research can greatly enhance the reputation of researchers and their affiliated universities. Research offers visibility and prestige, as well as greater opportunities for attracting better students and faculty.

Larsen and Neely [2000] surveyed AIS/ICIS placement recruiters to describe their ideal candidate when hiring an assistant or "rank open" professor. Survey questions focused on teaching, research, service, and individual characteristics. Out of 20 characteristics, personality was the most important, followed by teaching interest¹ and the number and quality of journal publications. The number and quality of conference publications ranked in the bottom 50% of the characteristics, and teaching institutions regarded them more highly than did research institutions. Obviously, Ph.D. programs have little impact on the personality of their students. However, programs can influence their students' teaching interests and publication record.

¹ Recruiters were more interested in the applicant's teaching interests (mean of 5.65/7) than their prior teaching experience (mean of 5.42/7). Prior teaching experience ranked fifth.

Although tight job markets are often credited as the reason for increased student publications [Crannell, 1998; Pfannestiel, 1998], Larsen and Neely [2000] conducted their survey at a time when there were more AIS/ICIS placement positions available than applicants to fill them. Since then, there have been more applicants than positions [Association for Information Systems, 2006; Frolick et al., 2005].

With this study, we begin an investigation of the distribution of the top IS researchers within the academic “market”. Universities provide the greatest “supply”, yet also have the greatest “demand” for IS researchers. Ph.D. granting institutions demand high quality IS faculty in order to produce their product (future IS researchers). In turn, their product meets the demand of other institutions (primarily universities). The purpose of this study was to determine the leading IS researchers and the universities that supplied them.

II. IS OUTLETS FOR ACADEMIC RESEARCH

Twenty years have passed since Culnan and Swanson [1986] first proclaimed that MIS had emerged as a distinct research field. Then, the field was so new that *MIS Quarterly* and the *ICIS Proceedings* were the only publication outlets designed primarily for information systems academicians. Journals designed for other disciplines, such as the computer, management, and organization sciences, published the majority of MIS research. Since then, the field has amassed a wide variety of outlets for IS research.

In order to determine the top IS researchers, we first had to determine the top “pure IS” journals – defined as journals that focus exclusively on issues related to IS research. Additionally, since we were interested in recent research, we focused on journal rankings published since 2001.

The ISWorld web site [Saunders, 2006] lists five publications that meet the criteria for “pure IS” research [Rainer and Miller, 2005; Lowry et al., 2004; Peffers and Tang, 2003; Katerattanakul et al., 2003; Mylonopoulos and Theoharakis, 2001]. We reviewed each of them. However, we did not include the results from Katerattanakul et al. [2003] because they ranked journals according to citation index. There is a major flaw in ranking IS journals in this manner. When attempting to assess newer journals, there simply is not enough citation data available to provide an adequate evaluation because of the two-year time lag between the citation and the date of publication [Barnes 2005]. For example, the *Journal of Management Information Systems (JMIS)* has only been in the citation index since 1999, and *Communication of the Association for Information Systems (CAIS)* and *Journal of the Association for Information Systems (JAIS)* do not participate in any citation index. As a result, although each of these journals is highly respected, they were not included in the Katerattanakul et al. [2003] journal ranking. We therefore reviewed the more recent journal rankings that classified journals by discipline(s) of focus and/or rank according to popularity.

Rainer and Miller [2005] averaged journal rankings across nine studies to derive a composite ranking of the top 50 publication outlets for IS researchers. These rankings were published over a 12 year period, from 1991-2003. Of those journals studied, 29 were defined as “pure IS” journals, meaning that the articles within these journals were dedicated to the IS field. The “pure IS” journals are the leading journals in the field of Information Systems.

Peffers and Tang [2003] evaluated IS research journals, as well as journals that publish IS research. They identified 114 journals as “pure IS”. Table 1 shows the journals that made the top ten in the Rainer and Miller [2005] and/or the Peffers and Tang [2003] lists of “pure IS” journals.

The remaining MIS journal rankings focused on respondents’ assessment of the quality of journals, which cater to a variety of disciplines. We reviewed them and ranked the top 10 “pure IS journals” in their study, using the lists from Rainer and Miller [2005] and Peffers and Tang [2003] (Table 1).

Table 1. Top “Pure IS” Journal Rankings

Abbrev.	Journal	R&M 2005 Rank	P&Y 2003 Rank
CAIS	Communications of the Association for Information Systems	8	6
DB	DataBase	-	8
DSS	Decision Support Systems	4	7
EJIS	European Journal of Information Systems	6	4
I&M	Information & Management	5	5
ISJ	Information Systems Journal	-	10
ISR	Information Systems Research	2	2
JAIS	Journal of the Association for Information Systems	-	9
JDBA	Journal of Database Administration	7	-
JIM	Journal of Information Management	9	-
JMIS	Journal of Management Information Systems	3	3
JSIS	Journal of Strategic Information Systems	10	-
MISQ	MIS Quarterly	1	1

Lowry, Romans, and Curtie [2004] surveyed 414 IS departments to determine the respondents’ assessment of the top four research journals. The final ranking included journals across a variety of disciplines. Results were further broken down according to region. Since the United States has the greatest supply and demand of IS researchers, we focused on the North American ranking. Table 2 lists the 10 “pure IS” journals with the highest ranking.

Mylonopoulos and Theoharakis [2001] surveyed members of the ISWorld mailing list to determine the respondents’ assessment of the top ten research journals. Although the sample was selected from ISWorld, only 63% of the respondents classified themselves as members of the IS discipline. Results were also further broken down according to region. Table 2 lists the North American top 10 “pure IS” journals from their survey.

Table 2. Rank Order of “Pure IS” Journals

R&M 2005	P&T 2003	LR&C 2003	M & T 2001
MISQ	MISQ	MISQ	MISQ
ISR	ISR	ISR	ISR
JMIS	JMIS	JMIS	JMIS
DSS	EJIS	DSS	DSS
I&M	I&M	JAIS	I&M
EJIS	CAIS	I&M	DB
JDBA	DSS	JCIS	EJIS
CAIS	DB	JIS	CAIS
JIM	JAIS	DB	ISJ
JSIS	ISJ	ISJ	JSIS

As shown in Table 2, five journals (*MISQ*, *ISR*, *JMIS*, *DSS*, and *I&M*) ranked among the top ten “pure IS” journals in each of the studies. Also note that, although new², *CAIS* and *JAIS* ranked in the top ten at least 50% of the time. Additionally, *CAIS* and *JAIS* are both published by AIS, and anecdotal evidence shows their strong support and respect within the IS community. We therefore included them in our study.

² *CAIS* was first published in 1999; *JAIS* was first published in 2000.

III. METHODOLOGY

We collected data on the composite list of the seven leading IS journals: *CAIS*, *DSS*, *I&M*, *ISR*, *J AIS*, *JMIS*, and *MIS Quarterly*. As expected, each of the studies ranked *MIS Quarterly*, *ISR*, and *JMIS* as the top three IS journals. Arguably, there is wide variance in the quality of these journals, and we did not attempt to rank the other four journals. We are interested in who publishes in them, rather than their ranking. However, Kozar et al. [2006] have criticized Treischmann et al.'s [2000] position that IS has only two "A" journals – *MIS Quarterly* and *ISR* – positing that this puts IS faculty at a disadvantage in regard to tenure, promotion, and salary increases. Dennis et al. [2006] recently compared promotion and tenure standards for IS faculty with those of other faculty within colleges of business and concluded that using *MIS Quarterly* and *ISR* as the basis for promotion and tenure is too restrictive. They suggested doubling the number of articles published by *MIS Quarterly* and *ISR* and/or adding other journals, such as *JMIS* or *J AIS* to the "A" list.

We reviewed the publications from calendar years 2001 to 2005 and collected data pertaining to the articles and authors published during that time. 2001 was the first year in which all journals in our sample published a full year of articles. Additionally, Chua et al. [2002] compared researcher productivity to a Poisson distribution. A researcher may publish several articles one year, and nothing the next. This may be attributed to a variety of causes, such as impending tenure, extended review or revision periods, publication queues, etc. The 2001-2005 period therefore accounts for all journals in our sample, as well as variability in publication rates.

We did not include letters to the editor or editorial notes. For each article published, we collected the following: journal name, issue, and year; name and number of authors per article; author affiliation, rank, degree-granting institution (if Ph.D.) and year graduated; and Carnegie classification of the current and Ph.D. granting university. If author information was not available within the journal, we searched other areas (university web sites, ISWorld, dissertation abstracts, publication databases, etc.). Using this method, we were able to obtain complete data on over 99% of the authors. Obtaining information on the year in which the authors received their Ph.D. (especially if it was not in the United States) was often difficult.

Table 3. Articles and Authors Published Each Calendar Year

Journal	2001 art/auth	2002 art/auth	2003 art/auth	2004 art/auth	2005 art/auth	Total art/auth	Author Ratio
CAIS	63/103	62/176	91/196	71/179	93/241	380/895	2.36
DSS	55/128	42/110	66/170	83/210	105/285	351/903	2.57
I&M	49/106	46/89	73/157	72/161	61/157	301/670	2.26
ISR	23/54	24/57	16/39	20/52	21/56	104/258	2.48
J AIS	8/20	7/11	16/34	18/41	14/36	63/142	2.25
JMIS	35/80	36/101	34/85	35/102	42/113	182/481	2.64
MISQ	16/36	17/42	22/53	24/57	25/62	105/250	2.38
Total	249/527	234/586	318/734	323/802	362/950	1486/3599	2.42

IV. FINDINGS

During the calendar years 2001-2005, the seven journals in our study published 1,486 articles (Table 3). Two-thousand-four-hundred-and-one (2,401) authors contributed to these articles. Many authors published more than one article, resulting in 3,599 appearances of authors during those same years. On average, there were 2.42 authors per article (3,599/1,486). As shown, there is wide variance among the number of articles published per journal. Table 4³ lists the yearly percentage of publications per journal.

Table 4. Yearly Percentage of Publications per Journal

Journal	2001	2002	2003	2004	2005
CAIS	25%	26%	29%	22%	26%
DSS	22%	18%	21%	26%	29%
I&M	20%	20%	23%	22%	17%
ISR	9%	10%	5%	6%	6%
JAIS	3%	3%	5%	6%	4%
JMIS	14%	15%	11%	11%	12%
MISQ	6%	7%	7%	7%	7%

TOP IS RESEARCHERS

We calculated the number of full and partial (e.g. more than one author) articles associated with each of the authors in the data set. Multiple authors received credit, based on the number of authors for a given article. If two authors wrote the article, each author received .50 credits. If three authors, each author received .33 credits, and so on. Prior researchers [e.g. Lindsey 1980, Eom 1994, Im et al. 1998, Athey and Plotnickey 2002, Huang and Hsu 2005] have used this method of partial credit when investigating research productivity.

The IS researchers publishing five or more articles in these journals during calendar years 2001-2005 are listed in Table 5. We also included their affiliation (at the time of their most recent publication) and the university from which they obtained their Ph.D. Table 6 provides a further breakdown of IS researchers, depicting the leading IS journals in which they published during calendar years 2001-2005.

Table 5. IS Researchers with Five or More Publications in the Leading IS Journals 2001-2005

IS Researcher	Affiliation	Ph.D. Program Affiliation	Total Number of Articles	Partial Credit of Articles
Heather Smith	Queen's University	None	21	9.4
Steven Alter	University of San Francisco	Massachusetts Institute of Technology	18	13.5
James McKeen	Queen's University (Canada)	University of Minnesota	18	8.25
Andrew Whinston	University of Texas at Austin	Carnegie Mellon University	17	4.82
Izak Benbasat	University of British Columbia	University of Minnesota	13	5.32
Varun Grover	Clemson University	University of Pittsburgh	13	4.64
Detmar Straub	Georgia State University	Indiana University	13	4.31

³ *JMIS* and *MIS Quarterly* recently increased the number of articles published per year. However, these results will not be evident until the 2006 data is collected.

IS Researcher	Affiliation	Ph.D. Program Affiliation	Total Number of Articles	Partial Credit of Articles
Hsinchun Chen	University of Arizona	New York University	12	3.58
Richard Watson	University of Georgia	University of Minnesota	11	3.93
Gary Klein	University of Colorado at Colorado Springs	Purdue University	11	3.43
James Jiang	University of Central Florida	University of Cincinnati	11	3.43
David Gefen	Drexel University	Georgia State University	10	6
Robert Kauffman	University of Minnesota	Carnegie Mellon University	10	4.86
Alan Dennis	Indiana University	University of Arizona	10	4.44
Blake Ives	University of Houston	University of Minnesota	10	4.19
Kalle Lyytinen	Case Western Reserve University	University of Jyvaskyla	10	3.31
Rajv Kohli	University of Notre Dame ⁴	University of Baltimore Baltimore County	9	4.32
Robert Davison	City University of Hong Kong	City University of Hong Kong	9	3.47
Robert Zmud	University of Oklahoma	University of Arizona	9	2.85
Joseph Valacich	Washington State University	University of Arizona	9	2.46
Barbara Wixom	University of Virginia	University of Georgia	8	3.74
Dennis Galletta	University of Pittsburgh	University of Minnesota	8	3.24
Kenneth Kraemer	University of California Irvine	University of Southern California	8	2.94
Kar Yan Tam	Hong University of Science and Tech.	Purdue University	8	2.83
Alok Gupta	University of Minnesota	University of Texas at Austin	8	2.65
Gabriele Piccoli	Cornell University	Louisiana State University and Agricultural and Mechanical College	7	3.66
M. Lynne Markus	Bentley College	Case Western Reserve University	7	3.39
Hugh Watson	University of Georgia	Florida State University	7	3.24
William King	University of Pittsburgh	Case Western Reserve University	7	3.16
Kwok-Kee Wei	City University of Hong Kong	York University	7	2.15
Jay Nunamaker	University of Arizona	Case Western Reserve University	7	1.94
H. R. Rao	State University of New York at Buffalo	Purdue University Main Campus	7	1.91
Upkar Varshney	Georgia State University	University of Missouri - Kansas City	6	3.94
Maryam Alavi	Emory University	Ohio State University Main Campus, The	6	2.19

⁴ Joined the faculty of the College of William and Mary in 2005

IS Researcher	Affiliation	Ph.D. Program Affiliation	Total Number of Articles	Partial Credit of Articles
Eric Clemons	University of Pennsylvania	Cornell University	6	2.19
D. J. Wu	Georgia Institute of Technology	University of Pennsylvania	6	2.15
Carol Saunders	University of Central Florida	University of Houston	6	1.99
David Yen	Miami University	University of Nebraska - Lincoln	6	1.91
John King	University of Michigan	University of California-Irvine	6	1.86
Paulo Goes	University of Connecticut	University of Rochester	6	1.82
Bernard Tan	National University of Singapore	National University of Singapore	6	1.82
Anol Bhattacharjee	University of South Florida	University of Houston	5	4.5
Reza Barkhi	Virginia Polytechnic Institute and State University	Ohio State University Main Campus, The	5	3.08
Thompson Teo	National University of Singapore	University of Pittsburgh	5	3
Ned Kock	Texas A&M International University	University of Waikato	5	2.92
Donald McCubbrey	University of Denver	University of Maribor	5	2.83
Zahir Irani	Brunel University	Brunel University	5	2.53
Hemant Bhargava	University of California-Davis	University of Pennsylvania	5	2.5
Kevin Zhu	University of California-Irvine	Stanford University	5	2.45
Dov Te'eni	Tel Aviv University	Tel Aviv University	5	2.42
Sulin Ba	University of Connecticut	University of Texas at Austin	5	2.41
Dorothy Leidner	Baylor University	University of Texas at Austin	5	2.43
Akhil Kumar	Pennsylvania State University	University of California-Berkeley	5	2.33
Albert Lederer	University of Kentucky	Ohio State University Main Campus, The	5	2.25
Omar El Sawy	University of Southern California	Stanford University	5	2.19
Suprateek Sarker	Washington State University	University of Cincinnati	5	2.16
John Michael Pearson	Southern Illinois University at Carbondale	Mississippi State University	5	2.16
Sarv Devaraj	University of Notre Dame	University of Minnesota	5	1.99
Sangjae Lee	Sejong University	Korea Advanced Institute of Science and Technology	5	1.99

IS Researcher	Affiliation	Ph.D. Program Affiliation	Total Number of Articles	Partial Credit of Articles
Seymour Goodman	Georgia Institute of Technology	California Institute of Technology	5	1.95
Youngjin Yoo	Case Western Reserve University	University of Maryland	5	1.94
Scott McCoy	College of William and Mary	University of Pittsburgh	5	1.91
Prashant Palvia	University of North Carolina at Greensboro	University of Minnesota	5	1.75
Traci Carte	University of Oklahoma	University of Georgia	5	1.74
Ping Zhang	Syracuse University	University of Texas at Austin	5	1.59
Arvind Malhotra	University of North Carolina at Chapel Hill	University of Southern California	5	1.57
Alan Hevner	University of South Florida	Purdue University Main Campus	5	1.44
V. Sambamurthy	Michigan State University	University of Minnesota	5	1.35
Jian Ma	City University of Hong Kong	Asian Institute of Technology	5	1.31
Fred Davis	University of Arkansas	Massachusetts Institute of Technology	5	1.27
Ron Chi-Wai Kwok	City University of Hong Kong	City University of Hong Kong	5	1.23

Table 6. Leading IS Journals in Which the Top IS Researchers Published

IS Researcher	CAIS	DSS	I&M	ISR	JAIS	JMIS	MISQ
Heather Smith	21						
Steven Alter	17	1					
James McKeen	18						
Andrew Whinston	2	5		4		2	4
Izak Benbasat	1	1		2	2	3	4
Varun Grover	1		4	1	1	5	1
Detmar Straub	6			3	1	1	2
Hsinchun Chen		10				2	
Richard Watson	6	2		1	1		1
Gary Klein		1	6		2	1	1
James Jiang		1	6		2	1	1
David Gefen	3			2	1	2	2
Robert Kauffman	1				2	7	
Alan Dennis	4	1		1		1	3
Blake Ives	7				1		2
Kalle Lyytinen	4			1	2	1	2
Rajv Kohli	2	2	1	2		1	1
Robert Davison	8						1
Robert Zmud	2					1	6
Joseph Valacich	8				1		
Barbara Wixom	2		1	1		2	2

IS Researcher	CAIS	DSS	I&M	ISR	JAIS	JMIS	MISQ
Dennis Galletta	4				1	3	
Kenneth Kraemer	3			2	1	1	1
Kar Yan Tam		2		2		4	
Alok Gupta		3	1	2			2
Gabrielle Piccoli	5						2
M. Lynne Markus	3				1	2	1
Hugh Watson	3	2	1				1
William King	4		1			1	1
Kwok-Kee Wei		2	1	1	1		2
Jay Nunamaker		2				5	
H. R. Rao		4		1		1	1
Upkar Varshney	6						
Maryam Alavi	1			2		1	2
Eric Clemons	1					5	
D. J. Wu		3				3	
Carol Saunders	3			1		1	1
David Yen	2	2	2				
John King	3				1		2
Paulo Goes		2		1		1	2
Bernard Tan		2	1	1	1		1
Anol Bhattacharjee	1	1				1	2
Reza Barkhi	1	2	1			1	
Thompson Teo		1	4				
Ned Kock	3	1					1
Donald McCubbrey	5						
Zahir Irani			5				
Hemant Bhargava		1		1		3	
Kevin Zhu	1			2		2	
Dov Te'eni	3				1		1
Sulin Ba		2		1		1	1
Dorothy Leidner				1		2	2
Akhil Kumar		2		2		1	
Albert Lederer			3			2	
Omar El Sawy	3					1	1
Suprateek Sarker	1		1		3		
John Michael Pearson	2		3				
Sarv Devaraj		1		2		2	
Sangjae Lee			5				
Seymour Goodman	4				1		
Youngjin Yoo	1	1		2			1
Scott McCoy	4				1		
Prashant Palvia	2		3				
Traci Carte	1	1			1		2
Ping Zhang	4				1		
Arvind Malhotra				1		2	2
Alan Hevner	2	2					1
V. Sambamurthy	1					1	3
Jian Ma	1	1	2			1	
Fred Davis	2			1		1	1
Ron Chi-Wai Kwok	1	1	1		1	1	

We refined our search to include only those IS researchers who published in *MIS Quarterly*, *ISR*, or *JMIS* during 2001-2005. As expected, the number of authors with multiple publications in those journals is considerably smaller. Table 7 lists the IS researchers with four or more publications in these journals during calendar years 2001-2005. Table 8 provides a further breakdown regarding the number of publications per journal associated with the IS researchers listed in Table 7.

Table 7. Top IS Researchers in *MIS Quarterly*, *ISR*, and/or *JMIS* 2001-2005

IS Researcher	Affiliation	Ph.D. Program Affiliation	Total Number of Articles	Partial Credit of Articles
Andrew Whinston	University of Texas at Austin	Carnegie Mellon University	10	3.15
Izak Benbasat	University of British Columbia	University of Minnesota	9	3.82
Robert Kauffman	University of Minnesota	Carnegie Mellon University	7	3.16
Varun Grover	Clemson University	University of Pittsburgh	7	2.57
Robert Zmud	U. of Oklahoma	University of Arizona	7	2.57
David Gefen	Drexel University	Georgia State University	6	3.16
Kar Yan Tam	Hong Kong University of Science and Technology	Purdue University	6	2.41
Detmar Straub	Georgia State University	Indiana University	6	2.15
Dorothy Leidner	Baylor University	University of Texas at Austin	5	2.33
Maryam Alavi	Emory University	Ohio State University Main Campus, The	5	2.16
Eric Clemons	University of Pennsylvania	Cornell University	5	2.16
Barbara Wixom	University of Virginia	University of Georgia	5	2.16
Alan Dennis	Indiana University	University of Arizona	5	2.08
Arvind Malhotra	University of North Carolina at Chapel Hill	University of Southern California	5	1.57
Jay Nunamaker	University of Arizona	Case Western Reserve University	5	1.36
Mani Subramani	University of Minnesota	Boston University	4	2.33
Kevin Zhu	University of California-Irvine	Stanford University	4	2.25
Hemant Bhargava	University of California-Davis	University of Pennsylvania	4	2
Kalle Lyytinen	Case Western Reserve University	University of Jyvaskyla	4	1.75
Viswanath Venkatesh	University of Arkansas	University of Minnesota	4	1.75
Rajiv Kohli	University of Notre Dame	University of Baltimore Baltimore County	4	1.66
Kenneth Kraemer	University of California Irvine	University of Southern California	4	1.58
Sarv Devaraj	University of Notre Dame	University of Minnesota	4	1.49

IS Researcher	Affiliation	Ph.D. Program Affiliation	Total Number of Articles	Partial Credit of Articles
Alok Gupta	University of Minnesota	University of Texas at Austin	4	1.41
Ann Majchrzak	University of Southern California	University of California - Los Angeles	4	1.36
Tridas Mukhopadhyay	Carnegie Mellon University	University of Michigan	4	1.32
V. Sambamurthy	University of South Florida	University of Minnesota	4	1.32
Paulo Goes	University of Connecticut	University of Rochester	4	1.24
James Thong	Hong Kong University of Science and Technology	National University of Singapore	4	1.24
Ramayya Krishnan	Carnegie Mellon University	University of Texas at Austin	4	1.08

UNIVERSITIES THAT SUPPLY THE LEADING IS RESEARCHERS

Approximately 85% of the IS researchers in this study either have or are seeking doctoral degrees. Since universities are the greatest suppliers of researchers, we analyzed the data to determine the doctoral programs that produced the greatest number of graduates who publish in leading IS journals. Table 9 lists the doctoral programs that supplied ten or more graduates who published in the leading IS journals during calendar years 2001-2005.

Table 8. Multiple IS Researcher Publications in *MIS Quarterly*, *ISR*, and/or *JMIS* 2001-2005

IS Researcher	MIS Quarterly	ISR	JMIS
Andrew Whinston	4	4	2
Izak Benbasat	4	2	3
Robert Kauffman			7
Varun Grover	1	1	5
Robert Zmud	6		1
David Gefen	2	2	2
Kar Yan Tam		2	4
Detmar Straub	2	3	1
Dorothy Leidner	2	1	2
Maryam Alavi	2	2	1
Eric Clemons			5
Barbara Wixom	2	1	2
Alan Dennis	3	1	1
Arvind Malhotra	2	1	2
Jay Nunamaker			5
Mani Subramani	1	1	2
Kevin Zhu		2	2
Hemant Bhargava		1	3
Kalle Lyytinen	2	1	1
Viswanath Venkatesh	3	1	
Rajiv Kohli	1	2	1
Kenneth Kraemer	1	2	1
Sarv Devaraj		2	2
Alok Gupta	2	2	

Ann Majchrzak	3	1	
Tridas Mukhopadhyay		2	2
V. Sambamurthy	3		1
Paulo Goes	2	1	1
James Thong		1	3
Ramayya Krishnan		3	1

Table 9. Universities with Doctoral Programs That Supplied the Most Graduates Who Published in the Leading IS Journals 2001-2005

University	Number of Graduates Who Published 2001-2005	Total Number of Articles Published 2001-2005	Partial Credit of Articles Published 2001-2005
University of Arizona	70	138	54.41
University of Minnesota	56	161	62.98
Massachusetts Institute of Technology	38	90	42.40
Carnegie Mellon University	37	80	30.62
University of Texas at Austin	37	74	27.98
Purdue University Main Campus	35	93	34.64
State University of New York at Buffalo	34	53	19.99
University of Pittsburgh	33	72	28.59
University of Michigan	31	46	21.14
Indiana University	31	61	25.55
Georgia State University	31	63	26.62
Korea Advanced Institute of Science and Technology	31	42	19.11
New York University	29	54	21.83
University of Georgia	28	51	19.99
University of Pennsylvania	28	51	22.93
Stanford University	27	44	16.95
University of California-Los Angeles	22	36	15.52
University of Wisconsin-Madison	22	29	14.64
U. of British Columbia	22	37	16.25
Florida State University	21	38	14.63
University of Illinois at Urbana-Champaign	21	32	12.55
University of Rochester	21	38	15.95
Texas Tech University	20	31	15.64
University of South Carolina - Columbia	19	26	11.17
Claremont Graduate University	19	23	15.82
Texas A&M University	19	25	9.72
Northwestern University	18	18	8.07
University of Southern California	17	35	13.67
Harvard University	17	23	7.37
University of Kentucky	17	24	11.02
University of Nebraska – Lincoln	16	30	10.70
University of California-Berkeley	14	29	12.23
Ohio State University Main Campus	14	32	13.66
University of Florida	13	18	6.63

University	Number of Graduates Who Published 2001-2005	Total Number of Articles Published 2001-2005	Partial Credit of Articles Published 2001-2005
University of Western Ontario	13	29	11.54
Pennsylvania State University	13	14	5.99
University of California-Irvine	13	22	7.62
University of Warwick	13	16	9.48
Virginia Polytechnic Institute and State University	13	16	5.63
National Sun Yat-Sen University	13	15	5.54
Southern Illinois University at Carbondale	12	22	11.69
Louisiana State University and Agricultural and Mechanical College	12	23	9.55
University of Texas at Arlington	12	17	7.42
Syracuse University	11	17	7.98
Georgia Institute of Technology	11	12	4.8
Rutgers University	11	16	9.6
University of London	11	18	6.55
Boston University	10	15	9.77
University of Maryland	10	19	8.54
Michigan State University	10	15	5.75
Kent State University	10	18	6.95
London School of Economics	10	18	8.14

DOCTORAL STUDENTS WHO PUBLISH IN THE LEADING IS JOURNALS

Two-hundred-fifty doctoral students from 132 universities published articles in one or more of the seven top IS journals during calendar years 2001-2005. We classified researchers as doctoral students if that was their rank at, or near, the time of publication. Some researcher classifications changed with subsequent publications. For example, they may be a doctoral student in one publication and an assistant professor for subsequent publications. Table 10 lists the universities from which three or more doctoral students published articles in the leading IS journals during calendar years 2001-2005. Some of the publications were co-authored by at least two doctoral students from the same university. Column 2 shows the total number of publications which are authored or coauthored by doctoral students. Column 3 shows the total number of times in which doctoral students contributed toward a publication. If column 3 is larger than column 4, more than one doctoral student contributed toward the same publication. Column 4 shows the total number of doctoral students which authored or coauthored a publication. Column 5 shows the partial credit allocated to the doctoral students for their contribution to the publications in column 2.

Table 10. Universities with Doctoral Programs That Supply the Most Students Who Publish in the Leading IS Journals

University	Doctoral Student Publications	Doctoral Student Contributions	Number of Doctoral Students	Partial Author Credit
Georgia State University	7	12	8	3.40
Korea Advanced Institute of Science and Technology	7	8	8	3.33
City University of Hong Kong	6	7	6	1.96
National Chiao Tung University	5	8	8	2.63
University of Arizona	5	7	7	1.66

University	Doctoral Student Publications	Doctoral Student Contributions	Number of Doctoral Students	Partial Author Credit
University of Minnesota	5	7	6	4.16
University of Michigan	4	8	7	1.81
Georgia Institute of Technology	4	6	6	2.24
University of South Carolina – Columbia	4	6	3	2.65
National Sun Yat-sen University	4	4	4	2
University of Southern California	4	4	3	1.7
University of Western Ontario	4	4	4	1.83
University of Illinois at Urbana-Champaign	4	4	4	1.33
University of British Columbia	4	4	4	1.66
Queen's University	4	4	3	1.49
University of Connecticut	3	5	5	1.33
University of Houston	3	5	5	1.99
National University of Singapore	3	3	3	1.16
Claremont Graduate University	3	3	3	2.5
Chinese University of Hong Kong	3	3	3	1.33
State University of New York at Buffalo	3	3	3	1

We also were interested in where these doctoral students published and with whom they published. During calendar years 2001-2005, 227 of the 1,486 articles published in the seven top IS journals were by one or more doctoral student authors. Table 11⁵ shows the number of student authored publications, as well as the number of students that contributed toward these publications. The yearly number of doctoral student publications in these journals more than doubled (33 versus 74) over the five-year period, and the number of student author contributions (36 versus 91) almost tripled.

Table 11. Articles by Doctoral Student Authors in the Leading IS Journals

Year	CAIS Art/Auth	DSS Art/Auth	I&M Art/Auth	ISR Art/Auth	JAIS Art/Auth	JMIS Art/Auth	MISQ Art/Auth	Total Art/Auth
2001	5/5	14/16	3/4	3/3	0/0	8/8	0/0	33/36
2002	10/13	8/8	6/7	1/1	1/1	8/8	1/2	35/40
2003	7/8	10/11	12/16	0/0	4/6	5/5	2/2	40/48
2004	10/15	12/15	7/8	4/4	1/1	8/10	3/3	45/56
2005	22/27	25/33	13/16	3/3	2/2	6/7	3/3	74/91
Total	54/68	69/83	41/51	11/11	8/10	35/38	9/10	227/271

Table 12 lists the percentage of publications in these journals that had one or more student authors. We were surprised that the percentage of doctoral student publications was that high. In most cases, not only is the number of publications each year increasing, but the percentage is also increasing. *ISR*, *JAIS*, and *MIS Quarterly* have the lowest number of publications each year,

⁵ We did not track publications by undergraduate or Masters level students. They were less likely to become leading IS researchers.

along with the lowest average percentage of doctoral student publications each year. As expected, the majority of the programs that met these criteria were from North America (13 from the United States, three from Canada). However, six were from Asian countries.

Table 12. Percentage of Articles by Doctoral Student Authors in the Leading IS Journals

Year	CAIS	DSS	I&M	ISR	JAIS	JMIS	MISQ
2001	8%	25%	6%	13%	0%	23%	0%
2002	16%	19%	13%	4%	13%	22%	6%
2003	8%	15%	16%	0%	25%	15%	9%
2004	14%	14%	10%	20%	6%	23%	13%
2005	24%	24%	21%	14%	14%	19%	16%

How do doctoral students get their work published in the leading IS journals? We assumed that senior faculty members were their co-authors. We classified faculty within the United States as senior faculty if they had rank equal to or higher than associate professor. Other countries are not as standardized in their method of appointing rank. If we were not able to tell by title, we assumed that any faculty member with a Ph.D. for longer than seven years (time allowed to reach tenure in the United States) was a senior faculty member. We did not attempt to determine lead author. Author names may appear in alphabetical order; senior professors may appear first, regardless of their contribution; and some senior professors may appear last, regardless of their contribution. Instead, we focused on the number and academic rank of co-authors. Table 13 lists the relationship between student authors and their co-authors. Only eight of the 227 doctoral student publications were single-authored (seven in CAIS; one in Information & Management). As expected, senior faculty co-authored 75% or more of the doctoral student publications.

Table 13 Doctoral Students and their Co-Authors 2001-2005

Journal	CAIS	DSS	I&M	ISR	JAIS	JMIS	MISQ
Publications	54	69	41	11	8	35	9
Percent Co-authored	87%	100%	98%	100%	100%	100%	100%
Maximum Authors	10	9	6	3	4	7	6
Minimum Authors	1	2	1	2	2	2	2
Percent With Senior Faculty	78%	88%	78%	82%	75%	94%	89%

UNIVERSITIES THAT PRODUCE THE MOST IS RESEARCH

The last question to answer was “Which universities produce the most IS research?” In other words, at which universities do the faculty and staff (not students) publish the most in the leading IS journals?” The dataset contained publication data on faculty and staff from 610 universities in 48 different countries. As previously stated, the sample consisted of 2,401 IS researchers and 3,559 appearances of these authors. The vast majority of the author appearances (65%) were from the United States. The countries with 10 or more IS researcher appearances are listed in Table 14.

Table 14: Countries that Represented 10 or more IS Researchers

Country	IS Researcher Appearances
United States	2347
China (including Taiwan)	339
Canada	180
Korea (North and South)	114
United Kingdom	107
Netherlands	65
Singapore	64
Australia	59
Spain	35
Israel	30
France	26
Finland	25
Norway	18
Greece	17
New Zealand	16
Switzerland	14
India	13
Germany	13
Japan	11
Italy	11
Denmark	11

Table 15 lists the top universities whose IS researchers published ten or more articles. The fourth column in Table 15 shows the number of times any IS researcher (excluding students) from a given university published in the leading IS journals during calendar years 2001-2005. Unequal values in columns three and four indicate that two or more authors from the same university collaborated on one or more publications. The last column shows the total number of authors that contributed toward these articles.⁶ IS researchers from industry published the greatest number of articles. Because this category included all IS researchers not associated with a university, these results were expected.

Most (87%) of the universities represented in Table 15 were from North America. Asian universities represented the remainder (13%) of Table 15. This is not surprising, given that each of the Asian universities listed has one or more doctoral programs, which increases the demand for IS researchers. In addition, Asian countries represent almost 50% of the remaining countries in the sample (excluding the United States).

Table 15: Top Universities that Produce the Most IS Research

University	Doctoral Program?	Faculty/Staff Publications 2001-2005	Faculty/Staff Contributions	Partial Author Credit	Total Number of Authors
Industry		175	225	79.51	219
Georgia State University	✓	56	62	25.98	24

⁶ If a researcher changed university affiliations, only future publications were credited to the new university.

University	Doctoral Program?	Faculty/Staff Publications 2001-2005	Faculty/Staff Contributions	Partial Author Credit	Total Number of Authors
City University of Hong Kong	✓	38	52	20.02	25
University of Minnesota	✓	33	35	15.92	10
Indiana University	✓	31	35	14.64	14
University of Texas at Austin	✓	31	38	12.55	12
University of Georgia	✓	30	35	12.89	13
Queen's University	✓	30	52	22.46	8
University of Arizona	✓	30	43	14.54	19
University of Central Florida	✓	29	34	11.05	10
U.of Pittsburgh	✓	26	28	12.67	12
Korea Advanced Institute of Science and Technology	✓	26	30	13.73	18
Washington State University	✓	25	32	10.71	15
University of Maryland	✓	23	28	11.15	17
University of Southern California	✓	23	26	11.19	13
Georgia Institute of Technology	✓	22	27	10.23	14
Bentley College	Fall 2006	22	30	13.16	17
National University of Singapore	✓	22	34	13.28	18
University of South Florida	✓	21	25	11.78	12
University of British Columbia	✓	21	23	9.80	9
University of Houston	✓	19	24	8.53	9
University of Oklahoma	✓	19	23	8.16	8
Hong Kong University of Science and Technology	✓	19	31	11.30	15
University of Connecticut	✓	18	27	9.62	16
University of Michigan	✓	18	21	6.82	13
University of San Francisco	X	18	18	13.5	1
University of Hong Kong	✓	18	21	8.71	12
Arizona State University	✓	18	21	9.31	14
Clemson University	✓	17	17	5.97	5
Chinese University of Hong Kong	✓	16	21	8.71	14
Drexel Univ.	✓	16	16	9.15	4

University	Doctoral Program?	Faculty/Staff Publications 2001-2005	Faculty/Staff Contributions	Partial Author Credit	Total Number of Authors
University of Kentucky	✓	16	17	7.57	6
University of Wisconsin-Milwaukee	✓	16	20	8.13	13
Texas Tech University	✓	15	15	7.66	8
Pennsylvania State University	✓	15	17	6.59	13
University of California-Irvine	✓	15	21	8.63	7
Carnegie Mellon University	✓	15	22	8.3	14
State University of New York at Buffalo	✓	14	23	7.75	9
Florida State University	✓	14	14	5.46	9
University of Pennsylvania	✓	14	17	6.67	8
Virginia Polytechnic Institute and State University	✓	13	15	6.64	7
Boston University	✓	13	18	6.4	14
Cornell University	✓	13	18	8.57	7
Michigan State University	✓	13	13	5.09	9
University of Nebraska at Omaha	✓	13	15	6.18	6
Case Western Reserve University	✓	13	17	6.36	4
Massachusetts Institute of Technology	✓	13	14	4.68	9
Southern Illinois University at Carbondale	✓	12	15	5.31	5
U. of Colorado - Col. Springs	X	12	14	4.76	4
San Diego State University	X	12	15	9.52	8
University of Virginia	✓	12	15	6.18	5
Nanyang Technological University	✓	12	18	7.15	13
Auburn University	✓	12	15	5.41	8
University of Arkansas	✓	12	15	5.1	7
University of Nevada-Las Vegas	X	12	14	5.51	8
National Sun Yat-Sen University	✓	11	14	5.04	8

University	Doctoral Program?	Faculty/Staff Publications 2001-2005	Faculty/Staff Contributions	Partial Author Credit	Total Number of Authors
North Carolina State University	✓	11	12	4.64	7
University of Texas at Arlington	✓	11	14	5.72	9
University of Texas at Dallas	✓	11	17	6.12	10
Yonsei University	✓	11	14	4.99	11
University of Florida	✓	11	14	6.07	9
University of North Carolina at Chapel Hill	✓	11	13	4.73	6
Emory University	✓	11	12	4.87	4
Temple University	✓	11	13	6.24	9
Syracuse University	✓	10	10	5.08	6
Boston College	✓	10	11	5.47	7
Baruch College	✓	11	11	4.82	8
Oklahoma State University	✓	10	15	5.47	10
Concordia University - Canada	X	10	12	5.75	7

UNIVERSITIES THAT SUPPLY THE MOST GRADUATES, STUDENTS, AND FACULTY WHO PUBLISH IN THE LEADING IS JOURNALS

We reviewed the data to determine if any universities met the criteria combined in Tables 9, 10, and 15: universities that supply the most graduates (ten or more) who publish; universities that supply the most published doctoral students (three or more); and universities whose faculty/staff produce the most research (ten or more publications) in the leading IS journals. Eleven universities met all the criteria, as shown in Table 16. We do not have enough data to support our claim statistically, but it seems logical that those universities that encourage their doctoral students to research and publish in leading journals while they are still students are providing the greatest long-term supply of IS researchers.

Table 16 shows the universities that are the best contributors to IS research, based on the categories of doctoral students, graduates, and faculty/staff who published in the leading IS journals. However, these are not the best overall contributors. Although some universities may have few, if any, doctoral students who publish in the leading IS journals, they may have a significant number of faculty/staff and/or graduates who contribute. Table 17 shows the universities that have at least 25 publications in the leading IS journals by their graduates, doctoral students, and/or faculty/staff. Note that the top four universities in Table 16 are the same as the top four in Table 17. Carnegie Mellon ranked fifth, barely beating out the University of Michigan.

Table 16. Top Universities That Supply Faculty, Staff, Graduates, and Ph.D. Students Who Publish

University	Graduates Who Published 2001-2005	Doctoral Students Who Published 2001-2005	Faculty/Staff Who Published 2001-2005	Total Contributors 2001-2005
University of Arizona	70	7	19	96
University of Minnesota	56	7	10	73
Georgia State University	31	8	24	63
Korea Advanced Institute of Science and Technology	31	8	18	57
University of Michigan	31	7	13	51
State University of New York at Buffalo	34	3	9	46
University of British Columbia	22	4	9	35
University of Southern California	17	3	13	33
Georgia Institute of Technology	11	6	14	31
University of Florida	13	3	9	25
National Sun Yat-Sen University	13	4	8	25

Table 17. Top Universities That Supply the Most Researchers who Publish in the Leading IS Journals

UNIVERSITY	GRADUATES WHO PUBLISHED 2001-2005	DOCTORAL STUDENTS WHO PUBLISHED 2001-2005	FACULTY/STAFF WHO PUBLISHED 2001-2005	TOTAL CONTRIBUTORS 2001-2005
University of Arizona	70	7	19	96
University of Minnesota	56	7	10	73
Georgia State University	31	8	24	63
Korea Advanced Institute of Science and Technology	31	8	18	57
Carnegie Mellon University	37	2	14	53
University of Michigan	31	7	13	51
University of Texas at Austin	37	1	12	50
Massachusetts Institute of Technology	38	2	9	49
Indiana University	31	2	14	47

UNIVERSITY	GRADUATES WHO PUBLISHED 2001-2005	DOCTORAL STUDENTS WHO PUBLISHED 2001-2005	FACULTY/STAFF WHO PUBLISHED 2001-2005	TOTAL CONTRIBUTORS 2001-2005
University of Pittsburgh	33	1	12	46
State University of New York at Buffalo	34	3	9	46
Purdue University Main Campus	35	1	8	44
University of Georgia	28	2	13	43
University of Pennsylvania	28	2	8	38
City University of Hong Kong	5	6	25	36
New York University	29	0	7	36
University of British Columbia	22	4	9	35
University of Illinois at Urbana-Champaign	21	4	9	34
University of Southern California	17	3	13	33
Stanford University	27	1	4	32
Georgia Institute of Technology	11	6	14	31
Florida State University	21	1	9	31
University of Connecticut	7	5	16	28
Texas Tech University	20	0	8	28
University of South Carolina - Columbia	19	3	6	28
Claremont Graduate University	19	3	6	28
University of Rochester	21	2	5	28
University of Maryland	10	0	17	27
Pennsylvania State University	13	1	13	27
Boston University	10	2	14	26
University of Wisconsin-Madison	22	0	4	26
University of Florida	13	3	9	25
University of Kentucky	17	2	6	25

UNIVERSITIES WHOSE GRADUATES, STUDENTS, AND FACULTY ARE THE TOP PUBLISHERS IN THE LEADING IS JOURNALS

One would assume that the universities with the largest number of research contributors would also produce the most publications. Table 18 shows the top 50 universities whose graduates, doctoral students, and faculty/staff published in the leading IS journals during calendar years 2001-2005. If two or more authors from the same university and classification (e.g. graduates) co-authored a paper, the university received one credit for the paper. If two or more authors from multiple universities co-authored a paper, each university affiliate received one credit. As shown, the top ranked universities in Table 17 are also generally the top ranked universities in Table 18, but not always with the same rank. Although the University of Arizona has more total contributors (96), the University of Minnesota has more total publications (199 versus Arizona's 173).

Table 18. Top 50 Universities Whose Graduates, Doctoral Students, and Faculty/Staff Published the Most Articles in the Leading IS Journals

UNIVERSITY	ARTICLES PUBLISHED BY GRADUATES 2001-2005	ARTICLES PUBLISHED BY DOCTORAL STUDENTS 2001-2005	ARTICLES PUBLISHED BY FACULTY/STAFF 2001-2005	TOTAL NUMBER OF PUBLICATIONS 2001-2005⁷
University of Minnesota	161	5	33	199
University of Arizona	138	5	30	173
Georgia State University	63	7	56	126
University of Texas at Austin	74	1	31	106
Massachusetts Institute of Technology	90	1	13	104
Purdue University Main Campus	93	1	7	101
University of Pittsburgh	72	2	26	100
Carnegie Mellon University	80	2	15	97
Indiana University	61	2	31	94
University of Georgia	51	2	30	83
Korea Advanced Institute of Science and Technology	42	7	26	75
State University of New York at Buffalo	53	3	14	70
University of Michigan	46	4	18	68
University of Pennsylvania	51	2	14	67
New York Univ.	54	0	10	64
City University of Hong Kong	19	6	38	63

⁷ This value may be larger than the total number of individual articles. For example, if one or more students coauthored a paper with one or more faculty/staff, the article was credited to both column 3 and column 4.

UNIVERSITY	ARTICLES PUBLISHED BY GRADUATES 2001-2005	ARTICLES PUBLISHED BY DOCTORAL STUDENTS 2001-2005	ARTICLES PUBLISHED BY FACULTY/STAFF 2001-2005	TOTAL NUMBER OF PUBLICATIONS 2001-2005⁷
University of Southern California	35	4	23	62
University of British Columbia	37	4	21	62
Florida State University	38	1	14	53
University of Rochester	38	2	10	50
Stanford University	44	2	4	50
Texas Tech University	31	0	15	46
University of Illinois at Urbana-Champaign	32	4	10	46
Case Western Reserve University	32	0	13	45
Ohio State University Main Campus	32	2	9	43
Queen's University	8	4	30	42
University of Maryland	19	0	23	42
University of Kentucky	24	2	16	42
University of Houston	19	3	19	41
University of Nebraska – Lincoln	30	1	10	41
National University of Singapore	15	3	22	40
University of California-Los Angeles	36	0	3	39
University of South Carolina - Columbia	26	4	9	39
Georgia Institute of Technology	12	4	22	38
University of California-Irvine	22	1	15	38
So. Illinois Univ. - Carbondale	22	2	12	36
Claremont Graduate University	23	3	10	36
Texas A&M University	25	1	10	36
University of Wisconsin-Madison	29	0	6	35
University of Central Florida	4	1	29	34
Louisiana State University and Agricultural and Mechanical College	23	2	9	34
Arizona State University	14	1	18	33
University of California-Berkeley	29	1	3	33
University of Connecticut	11	3	18	32
Cornell University	18	1	13	32

UNIVERSITY	ARTICLES PUBLISHED BY GRADUATES 2001-2005	ARTICLES PUBLISHED BY DOCTORAL STUDENTS 2001-2005	ARTICLES PUBLISHED BY FACULTY/STAFF 2001-2005	TOTAL NUMBER OF PUBLICATIONS 2001-2005⁷
Hong Kong University of Science and Technology	10	2	19	31
University of Florida	18	2	11	31
Washington State University	2	3	25	30
University of Wisconsin-Milwaukee	13	1	16	30
Pennsylvania State University	14	1	15	30
Boston University	15	2	13	30
National Sun Yat-Sen University	15	4	11	30

Although a university may be credited with a given publication, its affiliates may not have fully contributed. We therefore compared partial credit for each university. Table 19 shows the top 50 universities that received the greatest partial credit for publications by its graduates, doctoral students, and faculty/staff. University of Minnesota, University of Arizona, and Georgia State University have the highest ranks for affiliate publications, either by total count or partial credit. Although we expected similarity between Tables 18 and 19, we were surprised by the high degree of consistency. Only two universities – University of Western Ontario and Syracuse University - appeared in Table 19, but not Table 18.

Table 19. Top 50 Universities Whose Graduates, Doctoral Students, and Faculty/Staff have the Greatest Partial Credit for Publishing the Most Articles in the Leading IS Journals

UNIVERSITY	PARTIAL CREDIT PUBLICATIONS BY GRADUATES 2001-2005	PARTIAL CREDIT PUBLICATIONS BY DOCTORAL STUDENTS 2001-2005	PARTIAL CREDIT PUBLICATIONS BY FACULTY/STAFF 2001-2005	Total Number of Partial Credit Publications 2001-2005
University of Minnesota	62.98	4.16	15.92	83.06
University of Arizona	54.41	1.66	14.54	70.61
Georgia State University	26.62	3.40	25.98	56.00
Massachusetts Institute of Technology	42.40	0.66	4.68	47.74
University of Pittsburgh	28.59	1.00	12.67	42.26
Indiana University	25.55	0.83	14.64	41.02
University of Texas at Austin	27.98	0.33	12.55	40.86
Carnegie Mellon University	30.62	0.58	8.30	39.50

UNIVERSITY	PARTIAL CREDIT PUBLICATIONS BY GRADUATES 2001-2005	PARTIAL CREDIT PUBLICATIONS BY DOCTORAL STUDENTS 2001-2005	PARTIAL CREDIT PUBLICATIONS BY FACULTY/STAFF 2001-2005	Total Number of Partial Credit Publications 2001-2005
Purdue University Main Campus	34.64	0.33	3.39	38.36
Korea Advanced Institute of Science and Technology	19.11	3.33	13.73	36.17
University of Georgia	19.99	0.83	12.89	33.71
University of Pennsylvania	22.93	0.83	6.67	30.43
University of Michigan	21.14	1.81	6.82	29.77
State University of New York at Buffalo	19.99	1.00	7.75	28.74
City University of Hong Kong	6.44	1.96	20.02	28.42
Queen's University	4.00	1.49	22.46	27.95
University of British Columbia	16.25	1.66	9.80	27.71
New York University	21.83	-	5.17	27.00
University of Southern California	13.67	1.70	11.19	26.56
Texas Tech University	15.64	-	7.66	23.30
Claremont Graduate University	15.82	2.50	3.41	21.73
University of Houston	10.15	1.99	8.53	20.67
Florida State University	14.63	0.33	5.46	20.42
University of Rochester	15.95	0.66	3.57	20.18
University of Maryland	8.54	-	11.15	19.69
Case Western Reserve University	13.25	-	6.36	19.61
University of Kentucky	11.02	1.00	7.57	19.59
Stanford University	16.95	0.66	1.66	19.27
National Univ. of Singapore	4.80	1.16	13.28	19.24

UNIVERSITY	PARTIAL CREDIT PUBLICATIONS BY GRADUATES 2001-2005	PARTIAL CREDIT PUBLICATIONS BY DOCTORAL STUDENTS 2001-2005	PARTIAL CREDIT PUBLICATIONS BY FACULTY/STAFF 2001-2005	Total Number of Partial Credit Publications 2001-2005
University of Wisconsin-Madison	14.64	-	4.16	18.80
Ohio State University Main Campus	13.66	0.75	3.41	17.82
University of California-Los Angeles	15.52	-	2.00	17.52
Southern Illinois University at Carbondale	11.69	0.50	5.31	17.50
Georgia Institute of Technology	4.80	2.24	10.23	17.27
University of South Carolina - Columbia	11.17	2.65	3.40	17.22
Boston University	9.77	0.75	6.40	16.92
University of Illinois at Urbana-Champaign	12.55	1.33	2.99	16.87
University of California-Irvine	7.62	0.25	8.63	16.50
Hong Kong University of Science and Technology	3.39	0.75	12.30	16.44
University of Western Ontario	11.54	1.83	2.74	16.11
Arizona State University	5.81	0.50	9.31	15.62
University of Nebraska – Lincoln	10.70	0.50	4.36	15.56
University of Connecticut	4.15	1.33	9.62	15.10
Cornell University	5.93	0.50	8.57	15.00
University of California-Berkeley	12.23	0.50	2.00	14.73
Texas A&M University	9.72	0.33	4.18	14.23
Syracuse University	7.98	1.00	5.08	14.06
University of Florida	6.63	1.16	6.07	13.86

UNIVERSITY	PARTIAL CREDIT PUBLICATIONS BY GRADUATES 2001-2005	PARTIAL CREDIT PUBLICATIONS BY DOCTORAL STUDENTS 2001-2005	PARTIAL CREDIT PUBLICATIONS BY FACULTY/STAFF 2001-2005	Total Number of Partial Credit Publications 2001-2005
Louisiana State University and A & M College	9.55	0.58	3.69	13.82
University of Central Florida	2.08	0.50	11.05	13.63

Obviously, universities with the largest number of graduates, students, and faculty have the greatest probability of producing more research. Some university affiliates may have multiple publications, some may have one, and others may have none. We have no data on the potential researchers who did not publish. However, we were able to determine the average number of publications by university and sub-category (graduates, doctoral students, and faculty/staff) for those researchers who did publish in the leading IS journals. Data for the top 50 universities are listed in table 20. The top five highest values for each category are bolded. As shown, University of Minnesota has the greatest number of publications among potential contributors, and also ranks within the top five for average number of publications in three of the four categories. Case Western Reserve also ranks high in three of the four categories, but has considerably fewer contributors (eight graduates, no students, and four faculty/staff).

Table 20. Publication Results of Top 50 Universities

University	Number of Publications	Average Publications Per Graduate	Average Publications Per Student	Average Publications Per Faculty/Staff	Average Publications Per Contributor
University of Minnesota	199	2.88	0.71	3.30	2.73
University of Arizona	173	1.97	0.71	1.58	1.80
Georgia State University	126	2.03	0.88	2.33	2.00
University of Texas at Austin	106	2.00	1.00	2.58	2.12
Massachusetts Institute of Technology	104	2.37	0.50	1.44	2.12
Purdue University Main Campus	101	2.66	1.00	0.88	2.30
University of Pittsburgh	100	2.18	2.00	2.17	2.17
Carnegie Mellon Univ.	97	2.16	1.00	1.07	1.83
Indiana University	94	1.97	1.00	2.21	2.00
University of Georgia	83	1.82	1.00	2.31	1.93
Korea Advanced	75	1.35	0.88	1.44	1.32

University	Number of Publications	Average Publications Per Graduate	Average Publications Per Student	Average Publications Per Faculty/Staff	Average Publications Per Contributor
Institute of Science and Technology					
State University of New York at Buffalo	70	1.56	1.00	1.56	1.52
University of Michigan	68	1.48	0.57	1.38	1.33
University of Pennsylvania	67	1.82	1.00	1.75	1.76
New York University	64	1.86	-	1.43	1.78
City University of Hong Kong	63	3.80	1.00	1.52	1.75
University of Southern California	62	2.06	1.33	1.77	1.88
University of British Columbia	62	1.68	1.00	2.33	1.77
Florida State University	53	1.81	1.00	1.56	1.71
University of Rochester	50	1.81	1.00	2.00	1.79
Stanford University	50	1.63	2.00	1.00	1.56
Texas Tech University	46	1.55	-	1.88	1.64
University of Illinois at Urbana-Champaign	46	1.52	1.00	1.11	1.35
Case Western Reserve University	45	4.00	-	3.25	3.75
Ohio State University Main Campus	43	2.29	1.00	1.50	1.95
Queen's University	42	1.60	1.33	3.75	2.63
University of Kentucky	42	1.41	1.00	2.67	1.68
U. of Maryland	42	1.90	-	1.35	1.56
University of Houston	41	2.38	0.60	2.11	1.86
University of Nebraska – Lincoln	41	1.88	0.33	2.00	1.71
National University of Singapore	40	2.50	1.00	1.22	1.48

University	Number of Publications	Average Publications Per Graduate	Average Publications Per Student	Average Publications Per Faculty/Staff	Average Publications Per Contributor
University of California-Los Angeles	39	1.64	-	3.00	1.70
University of South Carolina - Columbia	39	1.37	1.33	1.50	1.39
University of California-Irvine	38	1.69	1.00	2.14	1.81
Georgia Institute of Technology	38	1.09	0.67	1.57	1.23
Southern Illinois University at Carbondale	36	1.83	2.00	2.40	2.00
Claremont Graduate University	36	1.21	1.00	1.67	1.29
Texas A&M University	36	1.32	1.00	1.11	1.24
University of Wisconsin-Madison	35	1.32	-	1.50	1.35
University of Central Florida	34	2.00	1.00	2.90	2.62
Louisiana State University and Agricultural and Mechanical College	34	1.92	1.00	1.29	1.62
University of California-Berkeley	33	2.07	1.00	1.50	1.94
Arizona State University	33	1.56	1.00	1.29	1.38
Cornell University	32	2.00	0.50	1.86	1.78
University of Connecticut	32	1.57	0.60	1.13	1.14
Hong Kong University of Science and Technology	31	1.43	1.00	1.27	1.29
University of Florida	31	1.38	0.67	1.22	1.24
Washington State University	30	1.00	1.50	1.67	1.58
University of Wisconsin-Milwaukee	30	2.17	1.00	1.23	1.50

University	Number of Publications	Average Publications Per Graduate	Average Publications Per Student	Average Publications Per Faculty/Staff	Average Publications Per Contributor
National Sun Yat-Sen University	30	1.15	1.00	1.38	1.20
Boston University	30	1.50	1.00	0.93	1.15
Pennsylvania State University	30	1.08	1.00	1.15	1.11

V. ASSESSING RESEARCH PRODUCTIVITY

It is very difficult to reach consensus on how to measure research productivity. Some universities only consider publications within pre-defined journals. This pre-defined list may include anywhere from one to hundreds of journals. Some universities consider all publications equally, regardless of prestige. Not only is the actual journal in question, but what about author contribution? Some universities strongly encourage co-authorship, while others insist on a certain number of single-authored publications. There may also be concern over lead authorship. Does the third person on an article contribute as much as the first two, or does the first author contribute more than the other authors? Is a 20 page article twice as important as a ten page article? Is quantitative research more important than qualitative? These cannot be determined by merely reviewing the journals. We also need to know the preferences of the individual and/or university that wish to assess the productivity. Following are some of the more recent methods employed by IS researchers:

Grover et al. [1992] ranked the leading MIS research institutions by counting the number of pages of MIS research generated during 1982-1991 in five of the journals in which MIS researchers publish. Non-MIS publications were not included.

Lending and Wetherbe [1992] reviewed MIS research from 1984-1990. They ranked the leading MIS research institutions, based upon MIS publications appearing in a list of thirteen journals, both IS and non-IS. Institutions were credited, based on partial counts of affiliated authors.

Im et al. [1998] ranked the leading MIS researchers and institutions according to publications in six journals during 1991-1996. In addition to normal and adjusted count of authors, they also included a productivity score, based on the number of pages for each article and journal importance.

Chua et al. [2002] studied "IS researcher-production" by reviewing IS research in a list of 58 journals from 1990-2000. The journal list included both pure IS and reference discipline journals. Straight (only consider first author), normal, and adjusted counts of authors were reported. They further assessed the data by using descriptive statistics and breaking the journals into "baskets" and assessing reliability. They described productivity of IS researchers as "lumpy" – meaning their production is not consistent over time.

Athey and Plotnicki [2005] studied publications in their list of top ten journals by both individuals and institutions. Data was collected on publications from 1999-2003. Both normal and adjusted counts were reported.

Huang and Hsu [2005] studied research productivity of individuals from 1999 to 2003. They counted number of publications by "IS researchers" that appeared in a list of 12 journals – some pure IS, others geared more toward management or management science. Both normal and adjusted counts were reported.

Dennis et al. [2006] counted the number of publications by recent IS doctorates during their first six years post graduation. They selected a list of 20 elite business journals, of which only two

were pure IS. Results were based on the average number of publications by each graduating class.

VI. SUMMARY AND CONCLUSIONS

The goal of this research was to investigate the distribution of the top IS researchers within the academic "market". We added to the extant research on journal ranking by reviewing journals within the past five calendar years for actual publications by university faculty members, doctoral students, and graduates of the universities. We believe that our findings can be valuable to the field of IS research in that it provides a means for assessing research productivity specifically within the IS field. Our results are of value for both IS researchers and institutions. It offers IS researchers suitable publication outlets and provides greater insight into the publication outlet focus of institutions. Additionally, research institutions are better able to compare their students, faculty, and graduates with others to aid in determining if they are producing high quality IS research.

Our journal selection was based on the most current rankings of IS journals. If we had selected a different basket of journals, our results would have been different. We do not purport that our method is the only or best method of assessing research productivity of IS researchers. There is simply no way to remove all the bias in a study such as this one. Some schools and/or researchers may view our selection of journals as too restrictive, while others may feel that we included too many journals, or that our choice of journals was not appropriate. Others may question whether publication in one of the more prestigious journals should receive the same weight. Some may question whether a peer-reviewed publication is better than one reviewed by an editorial board. Others may question whether we should evaluate a publication based on its merits, as opposed to the merits of the journal in which it is published. After all, some very good research has appeared in lesser journals, and poor research has appeared in better journals.

Chua et al. [2002] suggest that institutions create journal lists targeted toward their strengths and future objectives. We agree. However, we also contend that if Information Systems is to remain a distinct research field, the IS researchers should focus their publications on IS journals, as opposed to those geared toward other fields.

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Editor's Note: The following reference list contains hyperlinks to World Wide Web pages. Readers who have the ability to access the Web directly from their word processor or are reading the paper on the Web, can gain direct access to these linked references. Readers are warned, however, that

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