

INFORMATION TECHNOLOGY RESEARCH: AN ANALYSIS OF PROLIFIC AUTHORSHIP

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ABSTRACT

Information technology programs have entered their fourth decade at the University level within the United States. Throughout this time, significant research has been accomplished in areas such as user perception of information systems, information system integration and information systems strategy. This study investigates views on information system research for the purpose of identifying the factors that motivate researchers. A survey of all authors who published within top-rated MIS refereed journals from 1996–2001 was conducted and the results are tabulated within.

Keywords: MIS prolific authors, co-authors, author habits, author motivation

INTRODUCTION

Research and publication are a necessary part of academic life in view of requirements for tenure, promotion, merit pay, and keeping current in one's field as is required by accrediting organizations such as AACSB. Additionally, job mobility is considerably hindered if one is not demonstrating a steady research stream. Getting one's research published can be both challenging and fulfilling. One can gauge their success in research and writing by publications within the highest-quality journals. Academic institutions increase their stature in the eyes of stakeholders when their faculty is actively involved in research. New faculty may gain insights from understanding the views of accomplished authors.

Up to this point in time, studies of research in the MIS field have centered on journal rankings and authorship. The purpose of this qualitative study was to investigate views on research and writing for publication of selected individuals who have successfully authored in top-rated MIS refereed journals during 1996-2001.

REVIEW OF PREVIOUS RESEARCH

There have been several research studies that have evaluated journal rankings, author productivity, and school rankings within the field of management information systems. Many of the most current articles tend to extend the findings of previous studies while also increasing the breadth of review.

Mylonopoulos and Theoharakis (9) used an on-line questionnaire sent to members of the *IS World* mailing list and the IS Faculty Directory on www.isworld.org to determine the ten top journals as well as a second ten listing from a list of 87 journals compiled from previous ranking studies. Participants were asked to list the five journals they most frequently read. With the exception of Europe, the top three ranked journals were the same in all regions: *MIS Quarterly*,

Communications of the ACM, and *Information Systems Research*. In Europe, the third ranked journal was the *European Journal of Information Systems*. The readership findings for the top three journals were the same as the ranked journals by all categories except for Europe that placed *Harvard Business Review* in the top three instead of *Information Systems Research*. Respondent profile information was also collected.

Boudreau et al (3), while interested in validation techniques currently used in reported MIS research, relied on earlier studies of journal rankings by Nord and Nord (10), Hardgrave and Walstrom (6), and Walstrom et al (11) to determine appropriate journals to survey. The five journals included: *Information & Management*, *Information Systems Research*, *MIS Quarterly*, *Journal of Information Systems*, and *Management Science*. Gillenson and Stutz (5) conducted an earlier study by mail that included journal rankings and counting books in the tenure and promotion process. The study ranked *Management Science*, *MIS Quarterly*, and *Communications of the ACM* as “A+ or most favored outlets.”

Athey and Plotnicki (1) examined the quantity of research articles by individual information systems faculty and their university affiliations using previous ranking studies as the journal basis for the period 1992-1996. Alphabetically the ten “premier” journals reviewed were: *Communications of the ACM*, *Decision Sciences*, *Harvard Business Review*, *IEEE Transactions on Software Engineering*, *Information and Management*, *Information Systems Research*, *Journal of Management Information Systems*, *Management Science*, *MIS Quarterly*, and *Sloan Management Review*. The findings indicate that 73% of the researchers who published in the premier journals on average published less than one “adjusted count article” in five years.

Hardgrave and Walstrom (6) compared the results of their study with a 1991 similar study. Questionnaires sought perceptions of MIS faculty from the U.S. and Canada listed in the *1995 Directory of Management Information Systems Faculty* regarding appropriateness for MIS publication and conference ratings for 35 journals and 11 conferences. Based on a response rate of 18% (370 individuals), the four top journals were: *MIS Quarterly*, *Information Systems Research*, *Management Science*, and *Communications of the ACM*. The highest ranked conference was the International Conference on Information Systems (ICIS). The comparison with the earlier study (11) revealed relative stability of the rankings of the top-10 journals.

Doke, et al (4) studied 140 CIS/MIS faculty representing 49 AACSB institutions to determine journal preferences and familiarity due to tenure status, rank, and emphasis placed by institutions on teaching and research. Among the findings, publishing preference and familiarity ratings placed the same three journals at the top in both categories: *MIS Quarterly*, *Management Science*, and *Communications of the ACM*. Also *Decision Sciences*, *Journal of Management Information Systems*, and *Journal of Information Systems Management* were highly preferred.

Citation analysis has been undertaken in other fields. In the area of MIS, Holsapple et al. (7) completed a study using citation analysis of five journals from previous studies for the years 1987-1991 in the MIS field to determine citation trends for books, proceedings, and journals. A further study by Holsapple and Johnson (8) examined journal longevity.

Blaszczynski (2) studied the writing habits of four experienced business educators using a 17-item instrument to gain insights into scholarly productivity. Questions included the areas of writing habits, writing fulfillment, writing strategies, and advice to researchers.

METHODOLOGY

Based upon the prior research, we determined it was important to update and extend the investigation of what motivates MIS research. Specifically, we were interested in the following research questions: (1) What aspects of writing and research bring fulfillment or may not bring fulfillment to the authors? (2) How do researchers generate the topics they research? (3) What are the views of researchers regarding mentoring other researchers? (4) What are the factors that motivate research in the field of management information systems? (5) What is the relationship of the authors to co-authors? (6) What are the views of researchers toward serving as editors? In addition, ancillary data was deemed necessary to provide a context for the individuals in the study. These covered such topics as gender, rank, tenure, degree type, writing frequency, and writing environment. A further category of interest was determining what journals individuals regularly read.

Pilot Study

An initial study was spawned in part by Blaszczynski's (2) study of four business education researchers using a 17-item questionnaire covering topics such as writing habits, writing fulfillment, writing strategies, and advice to researchers. The researchers began by reviewing literature in several areas related to the broad topic: productive authorship, citation research, journal rankings, and author habits. Author selection for this study was based on journals that appeared in a recent study on journal rankings (Boudreau, Gefen, and Straub (3)). The time period selected generally fell in 1996-2001.

The researchers developed an author database for the selected time period using electronic and paper-based indices of the following five journals: *Information and Management*, *Information Systems Research*, *Journal of Management Information Systems*, *Management Science*, and *MIS Quarterly*. The five journals produced 1,458 articles authored by 3,170 authors (some appearing more than once in the list). For the initial pilot study, the "most" prolific authors were selected based on whether their names appeared three or more times. This resulted in 213 individuals. E-mail addresses were gathered from a variety of sources, including author or institution home pages, searching the Web, and within the articles reviewed. In five cases no current e-mail address could be determined. Two individuals were away for an extended period and were not utilized within the pilot study. The pilot study yielded 39 responses for an 18.75% response rate.

Instrument Development

Based upon the replies to the pilot survey, the researchers modified the survey instrument to focus on motivation factors and research characteristics of the authors. A five-point Likert scale (ranging from strongly disagree to strongly agree) was included and additional questions were included to address comments by the respondents. The questions covered the following areas: (1) co-authorship, (2) idea generation, (3) mentoring others, (4) motivation, and (5) writer's

block. Respondents were given an attached word document to be completed and returned as an attachment.

Journal Selection

The five journals selected by Boudreau, Gefen, and Straub (3) are generally considered to represent the *top-tier* journals in MIS and were used for this study. The period of time selected was 1996-2001, shown in Table 1.

Table 1. Journals Surveyed

<u>Journal</u>	<u>Period</u>	<u>Volume</u>
<i>Information & Management</i>	January, 1996- October, 2001	Vol. 30-38
<i>Information Systems Research</i>	March, 1996 – December, 2001	Vol. 7-12
<i>Journal of Management Information Systems</i>	Summer, 1996 – Spring 2001	Vol. 13-17
<i>Management Science</i>	January, 1996 – December, 2001	Vol. 42-47
<i>MIS Quarterly</i>	March 1, 1996 – December 1, 2001	Vol. 20-25

DATA COLLECTION

The total authorship for all articles published during this time period was 2,235. The 213 authors who were surveyed as part of the initial pilot study were not included in the final study. An attempt was made to determine the e-mail addresses of the 2,022 authors. The source for the e-mail addresses was based mainly upon searching the web. A total of 532 could not be found or the e-mail address was returned as undeliverable.

The survey was distributed in December, 2002 and resulted in 131 replies (most being returned almost immediately). A follow-up request was sent in January 2003 to the non-respondents that resulted in an additional 103 replies. The response rate in total was 16.2% (242). Six surveys were incomplete and were not included in the final analysis, yielding a usable response rate of 15.8%. Twenty-nine individuals replied that they declined to participate for a variety of reasons, (retirement, were away for an extended period of time, and seven of the individuals are now deceased).

RESULTS

The majority of respondents were from the United States (166). Ten respondents were from Canada followed by six respondents each from the United Kingdom, Hong Kong and Italy. There were five respondents from Belgium, The Netherlands, Singapore, and Israel.

The overwhelming majority of respondents were male (191) and most had earned a PhD (229). One hundred sixty-three were tenured; 47 were not tenured, and 26 did not work under a tenure system. The academic rank included 116 professors, 57 associate professors, 43 assistant professors, and 5 senior lecturers.

Respondents were rather evenly split as to what environment they prefer most often for writing: 79 indicated the office, 78 home and office, and 76 home only. The greatest number (96)

indicated that their writing frequency varied by schedule in blocks of time. Fifty-two noted they wrote at least twice a week; half that number (26) wrote at least once a week, and 47 reported they wrote daily or almost daily. Only 15 stated they wrote monthly.

While seven individuals stated they did not have an explicit target or “think” in terms of a specific number of refereed journal publications each year, most individuals did provide a number or range of journals they target, generally one to three as shown on Table 2.

Table 2. Target Number of Refereed Journals Each Year

<u>Number of Articles</u>	<u>Total Respondents</u>
1	30
1.5	2
1 to 2	10
1 to 3	2
2	81
2 to 3	9
2 to 4	1
2 to 6	1
3	37
3 to 4	3
3 to 5	1
4	21
4 to 5 or more	28

Teaching load was also an area of interest. Respondents were asked how many equivalent three-credit courses they taught in the last year. While the range was from zero to nine, the majority of respondents fell within five groups ranging from one to six as follows: one course, 15 individuals; two courses, 44 individuals; three courses 42 individuals; four courses, 62 individuals; five courses, 22 individuals; and six courses, 14 individuals.

Service as chair of a dissertation committee was noted positively by 127 respondents. Forty-six respondents were chief advisor for one candidate; 45 were chief advisor for two candidates, and 22 were chief advisor for three candidates. Twenty-two indicated they were chief advisor for four or more candidates. In addition to serving as chief advisor, Table 3 below indicates the number of doctoral committees respondents reported serving on:

Table 3. Service on Doctoral Committees

<u>Number of Committees</u>	<u>Total Respondents</u>
1	37
2	44
3	22
4	16
5	10
6	10
More than 7	3

Respondents were also asked to check from a list of 34 journals those they read regularly. The opportunity was available to add journals. The final list of journals including those added in was 251 which demonstrates the interdisciplinary nature of the authors in the journals selected. Table 4 reflects the most selected journals.

Table 4. Top Selected Journals

<u>Journal</u>	<u>Respondents</u>
Management Science	123
Harvard Business Review	62
MIS Quarterly	61
Operations Research	61
Academy of Management Journal	55
Communications of the ACM	55
Information Systems Research	55
IEEE Transactions	46
Decision Sciences	41
Interfaces (INFORMS)	40
Journal of Management Information Systems	39
Academy of Management Review	38
Organization Science	33
Administrative Science Quarterly	28
Decision Support Systems	28
Sloan Management Review	28
Communications of the AIS	26
Information and Management	24
IEEE Computer	23

Some respondents did not indicate specific journals, but rather noted that their discipline was not in the areas of the listed journals. When examined in more detail, the number of publications read regularly ranges from 1 to 10 (the remainder consisting of outliers with one person reading 38). Table 5 provides the number of publications read regularly.

Table 5. Number of Publications Read Regularly

<u>Number of Publications</u>	<u>Total Respondents</u>
1 or 2	25
3 or 4	58
5 or 6	56
7 or 8	37
9 or more	47

Five questions were designed to collect rankings in the area of selecting co-authors. The majority of individuals either somewhat agreed or strongly agreed with the statements dealing with selecting authors based on similar interests, the value the person adds, the contribution of the individual, the expertise, or a personal relationship with the individual.

CONCLUSION

A qualitative analysis of MIS research provides an up-to-date view on the factors and environment that influences research productivity. The importance of this study is that it defines factors that influence research productivity, as measured through research publications. Future research will extend from this initial study to provide a quantitative analysis of MIS research motivational factors.

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