

Deakin Research Online

This is the published version:

Lamp, John 2007, Perceptions of gender balance of IS journal editorial positions, *Communications of the association for information systems*, vol. 20, pp. 124-133.

Available from Deakin Research Online:

<http://hdl.handle.net/10536/DRO/DU:30007072>

Reproduced with the kind permissions of the copyright owner.

Copyright : 2007, Florida State University

7-31-2007

Perceptions of Gender Balance of IS Journal Editorial Positions

John W. Lamp

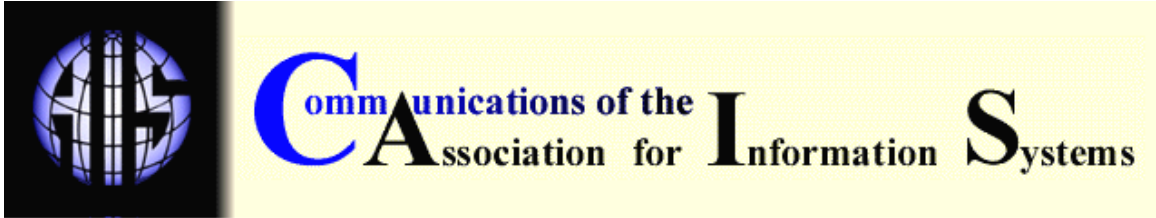
Deakin University, John.Lamp@deakin.edu.au

Recommended Citation

Lamp, John W. (2007) "Perceptions of Gender Balance of IS Journal Editorial Positions," *Communications of the Association for Information Systems*: Vol. 20, Article 14.

Available at: <http://aisel.aisnet.org/cais/vol20/iss1/14>

This material is brought to you by the Journals at AIS Electronic Library (AISeL). It has been accepted for inclusion in Communications of the Association for Information Systems by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.



PERCEPTIONS OF GENDER BALANCE OF IS JOURNAL EDITORIAL POSITIONS

John W. Lamp
 School of Information Systems
 Deakin University
 Geelong, Australia
John.Lamp@deakin.edu.au

ABSTRACT

An analysis of 18,854 editorial positions on IS journals was undertaken to examine the perceived gender balance of those positions as an indication of their contribution towards a positive role model for females considering an IS academic career. The nature and extent of perceived gender balance is examined in terms of overall composition of editorial positions, journal prestige and the specific area within IS covered by a journal. The results indicate that perceived gender balance of editorial positions reflects that of ICT academia generally, and that female representation appears to be concentrated in journals covering areas that are traditionally seen as female occupations, e.g., health, education, librarianship. As such, little or no encouragement is given to females considering an IS academic career.

Keywords: statistical analysis, gender, diversity, journals, editorial positions

I. INTRODUCTION

The motivation for this work was the ongoing concern over the lack of female involvement in the ICT sector. This was highlighted in Tracy Camp's seminal¹ work "The Incredible Shrinking Pipeline" [Camp 1997].

One factor influencing female participation might be the conspicuous existence of successful females in the sector, acting as role models. Attitudes and expectations are often influenced by the way reality is perceived. If females presently employed in ICT are perceived as successful, then that should attract new female entrants to the sector. A converse perception would discourage new female entrants.

Research literature in this area mentions the scarcity of role models and perceptions about what it is like to be an IT worker [e.g., Freeman and Aspray 1999] and the need for role models or mentors that are both male and female [e.g., Verbick 2002]. One study reported that "... many responses indicated the strong impact that role models or mentors played in the participants' lives" [Smith 2000]. Presence of role models has also been noted as a significant factor in women choosing an IT career [Maser 2006]. Cahoon and Aspray [2006] also mention the importance of role models as a positive and negative influence. A role comprising incessant work and no time

¹ A term, which in itself, is evidence of the gender-based ontological commitments in our society.

for a personal life would be an unacceptable role model, whereas conspicuous success would be an acceptable role model.

Within academia, success is often measured by a person's research profile. A highly visible surrogate for this measure is appointment to editorial positions. This line of thought led me to consider how a person looking at the occupants of IS journal editorial positions would perceive gender balance in that sector. Gender balance in IS editorial positions has attracted little attention, compared to gender based analyses of IS publication rates.

Some investigation has been done on gender and editorial positions in law [McBrier 2003], sociolinguistics and linguistic anthropology [McElhinny et al. 2003], sociology [Grant and Ward 1991; ASA 2004] and psychology [Over 1981; Boice et al. 1985; and White 1985]. The emphasis of these investigations has been on editors as gatekeepers or the role of such positions in reputation building, rather than an examination of role models.

This paper examines how the gender balance of IS journal editorial positions could be perceived to be constituted, i.e., how would gender balance be perceived by inspection of names of occupants of IS journal editorial positions?

II. METHODOLOGY

This is a study of perceived gender balance. It is important to note this at the outset, because the scope of the study, 18,854 positions on 453 IS journals may, incorrectly, lead the reader to think that it is simply a statistical survey. The fundamental issue being addressed by this paper is how would gender balance be perceived by inspection of names of occupants of IS journal editorial positions? This question is further refined into three sub-questions:

- i) How would the overall gender balance on IS journals be perceived?
- ii) Is there any relationship between the prestige of a journal and the perceived gender balance of its editorial board?
- iii) Is the perceived gender balance of editorial boards evenly distributed over research areas within IS?

A benchmark on the gender balance of IS academia was sought, against which the gender balance of IS journal editorial positions could be compared. A listing of current IS journals and the URLs for their web sites was obtained from the *Index of Information Systems Journals* [Lamp 2004]. Using this data, the journal web sites were accessed during July 2006, and the pages containing editorial positions were printed. Each printout was examined and the names colour coded and tabulated according to gender.

The question of overall gender balance was approached in two ways. Firstly a breakdown was made of the number of editors, associate editors and editorial board members of each gender. Secondly, the number of journals with males only or females only at the editor level was recorded.

Two measures of journal prestige were used to examine any relationship between journal prestige and perceived gender balance: continuity of publication, and inclusion in the *Master Journal List*. Continuity of publication is a widely regarded measure of achievement. The perceived gender balance of a journal's current editorial board was compared with its year of first publication. Inclusion in the Thomson-ISI *Master Journal List* [Thomson-ISI 2007] is also regarded as a significant achievement. The various citation indices and journal impact factors calculated by Thomson-ISI are derived from the publishing history of journals on their *Master Journal List*. The perceived gender balance of journals on this list was compared with that of all IS journals.

Thirdly, IS journals which were perceived to have no female representation were identified, as were IS journals perceived to have no male representation. The areas within the IS discipline which these journals covered were then compared.

III. DATA COLLECTION

While overall statistics on the gender balance of IS academia could not be found, a number of different measures [ABS² 2006; CRA³ 2006; Carrington and Pratt; 2003] were located that looked at similar cohorts (Table 1).

An initial data extraction from the *Index of Information Systems Journals* gave data on 537 journals, of which 493 journals displayed editorial position information on their web site (See Table 2 following). Forty journals had no gender identifiable positions. The remaining 453 journals had 18,854 gender identifiable positions. This data set was used to examine the overall gender balance. For comparison between journals, the dataset was further refined to limit inclusion to journals with ten or more gender identifiable positions, in order to reduce the influence of outliers.

Table 1. Measures of Gender Balance in the ICT Area

Survey	Country	Year	Males	Females
ABS Labour Market	Aust	2006	85%	15%
CRA (inc CS ⁴)	USA	2004-5	85%	15%
Carrington & Pratt All Academics	Aust	2002	62%	38%
Carrington & Pratt Post Grad IT	Aust	2002	76%	24%

Table 2. Summary of Data Extraction

537	journals extracted
-44	journals with no editorial information
493	journals with editorial information
-40	journals with no gender identifiable positions
453	journals with 18,854 gender identifiable positions
-104	journals with less than 10 gender identifiable positions
349	Journals with 14,843 gender identifiable positions

² Australian Bureau of Statistics

³ Computing Research Association

⁴ Computer Science

Two problems were immediately encountered: the variation in the organisation of journal editorial positions; and the number of positions where it was not possible to perceive the gender of the occupant.

The organisational structure of editorial positions reported by journal web sites differed, as did the nomenclature employed to describe the positions. Most journals seemed to use a three-level structure which, for the purposes of this study, I named and defined as follows:

- **Editors** – The senior decision making level. 474 journals had five or less people at this level. Ten journals simply reported the existence of an editorial board and did not identify an editor. *Lecture Notes in Computer Science* reported the highest number of editors at fourteen.
- **Associate Editors** – An identifiable group of lesser rank than editor, but a greater rank than that of an editorial board. Often responsible for a specific topic or geographic area. 166 journals did not report this intermediate level. 324 journals had a group of less than 30 people at this level. Two journals identified over 40 people as associate editors, however, neither of those journals had an editorial board.
- **Editorial Board Members** – An identifiable group of lesser rank than associate editors. Sixty-eight journals did not report an editorial board. membership of editorial boards varied from four to 240 people, with 410 journals reporting an editorial board of less than 100 persons.

It was not always possible to identify the gender of a person named in the journal Web pages for three reasons:

- **Initials only recorded** – a number of journals, including most journals published by Elsevier, did not provide full names of editorial people.
- **Inherent gender ambiguity** – names such as Jean, Chris and Dale could equally be applied to males or females.
- **My ethnic inadequacy** – my lack of universal knowledge of personal names also contributed to being unable to identify a number of names as being associated with males or females.

The first two limitations would apply to anyone undertaking this study. The third limitation would probably impact on most people replicating this study. The actual set of indeterminate names would vary from person to person, but the overall number of such names may not vary significantly between researchers.

IV. DATA ANALYSIS

PERCEPTION OF GENDER BALANCE OVER ALL JOURNALS

The overall perceived gender balance of IS editorial positions is presented in Table 3. The percentages shown under “ICT Sector” are those reported by the ABS [2006] and CRA [2006] and are shown for comparison. It should be noted that both of those surveys are regional and neither are based on global surveys, whereas the *Index of Information Systems Journals* does attempt to provide global coverage.

Table 3. Overall Gender Balance in IS Journal Editorial Positions (N=453)

Gender	ICT Sector	Editor	Associate Editor	Editorial Board
male	85%	81%	77%	78%
female	15%	19%	23%	22%

A frequency polygon showing the distribution of the number of journals according to the percentage of female representation is shown in Figure 1. Twenty-five journals had no female representation on their editorial positions. The median representation was 19 percent.

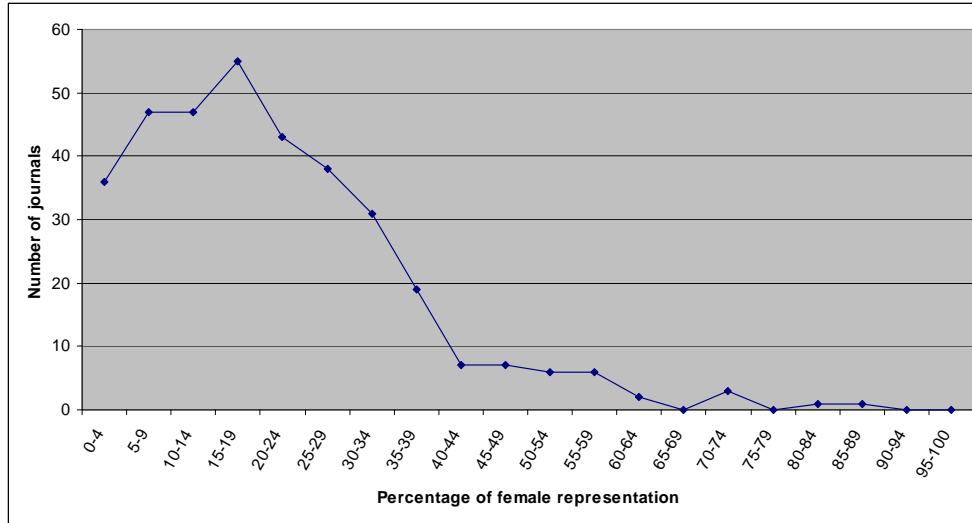


Figure 1. Perceived Gender Balance – All Editorial Positions (N=349)

Looking at the editor level only, there were 279 IS journals with at least one gender identifiable position, 205 journals (73 percent) were exclusively male and 26 journals (9 percent) were exclusively female (Table 4).

Table 4. IS Journals with Females Only at the Editor Level

Journal
<i>Academy of Management Journal</i>
<i>BMC Medical Informatics and Decision Making</i>
<i>Canadian Journal of Learning and Technology</i>
<i>Computer</i>
<i>Decision Sciences Journal</i>
<i>Decision Sciences Journal of Innovative Education</i>
<i>Electronic Journal of e-Learning</i>
<i>electronic Journal of Health Informatics</i>
<i>Group and Organization Management</i>
<i>Informatics in Primary Care</i>
<i>International Journal of Design Computing</i>
<i>International Journal of Pervasive Computing and Communications</i>
<i>International Journal of Web Engineering and Technology</i>
<i>International Journal of Web-Based Learning and Teaching Technologies</i>
<i>Journal of Computer-Mediated Communication</i>

- Journal of Computing in Higher Education*
- Journal of Design Communication*
- Journal of Electronic Publishing*
- Journal of Librarianship and Information Science*
- Journal of Research on Technology in Education*
- Literary and Linguistic Computing*
- MIS Quarterly*
- Online Journal of Nursing Informatics*
- Organization Science*
- Team Performance Management*
- The Electronic Journal of Communication*

JOURNAL PRESTIGE AND PERCEIVED GENDER BALANCE

The first measure of journal prestige used was continuity of publication. In order to investigate any relationship between the number of years a journal had been in existence and the current perceived gender balance, a scatter diagram was created (Figure 2) comparing the year of first publication with the percentage of females perceived to be current occupants of editorial positions. No relationship between these variables can be seen in the scatter diagram.

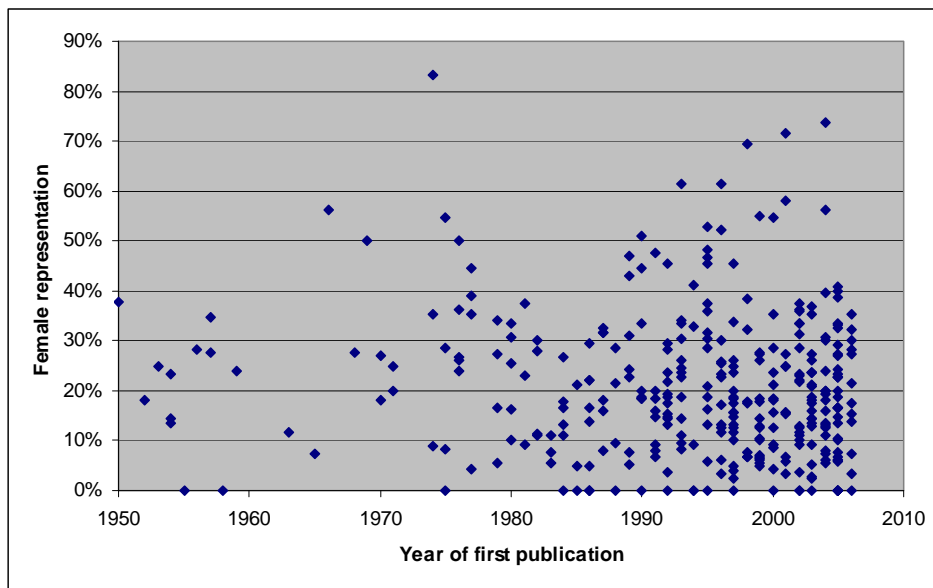


Figure 2. Prestige and Perceived Gender Balance –Year of First Publication (N=349)

The second measure of journal prestige was inclusion in the Thomson-ISI *Master Journal List*. A frequency polygon was created to compare the perceived level of female representation in all IS journals with those IS journals included in the *Master Journal List* (Figure 3). The two plots show a very high degree of coincidence, suggesting that there is no difference in perceived female representation in these two populations.

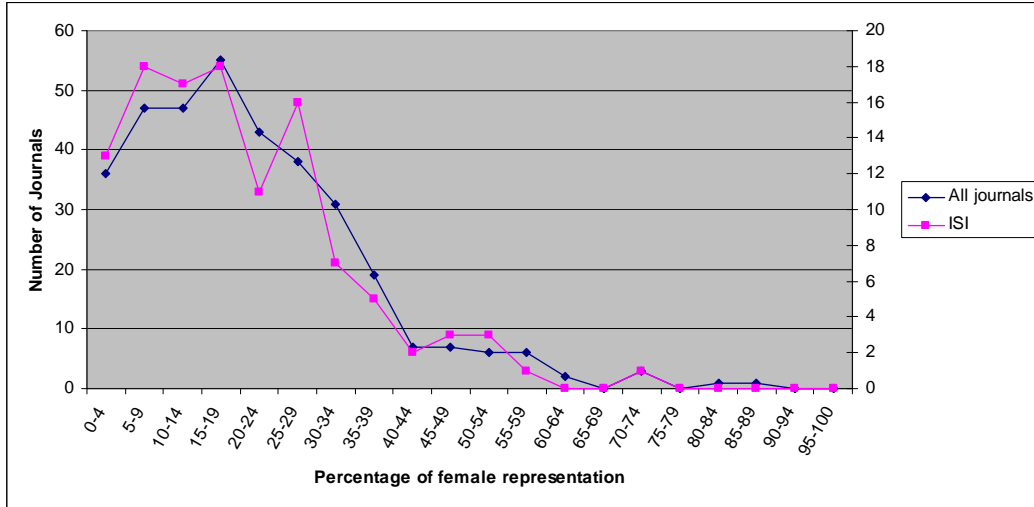


Figure 3. Prestige and Perceived Gender Balance – *Master Journal List* (N=349)

IS RESEARCH AREAS AND PERCEIVED GENDER BALANCE

An examination was made of IS journals with no perceived female representation in an editorial position at any level. There were 25 such journals, of which eight were in the *Master Journal List*. There were no IS journals perceived as having exclusively female occupants of editorial positions at all levels. A general categorisation of the journals with no perceived female representation is given in Table 5.

Table 5. IS Journals with no Female Representation

Category	All journals	In <i>Master Journal List</i>
Technical	12	2
Management	5	2
Mathematical	3	2
AI	2	2
Social	2	0
Ecommerce	1	0

An examination of the ten IS journals with the greatest perceived female representations was also undertaken (Table 6). Only two journals were included in the *Master Journal List*.

V. DISCUSSION

The overall perceived gender balance of occupants of IS journal editorial positions is generally consistent with the surveyed gender balance in the ICT academic positions. In the absence of definitive, consistently applied measures of gender balance in ICT academic positions, it is not possible to draw any more precise conclusion. Interestingly, perceived gender balance is remarkably consistent between high status journals and the general journal population, whether judged by inclusion in the *Master Journal List* or by continuity of publication.

There did appear to be a difference in perceived gender balance based on the topic of an individual journal. High female representation is associated with journals focused on areas

perceived as traditional female occupations. High male representation is associated with journals focused on areas perceived as highly technical. As has been commented, “Women academics tend to be heavily represented in the broad fields of teaching, nursing, arts, humanities and social sciences” [Carrington and Pratt 2003]. It would appear that even within a discipline, this divergence of representation may appear.

Table 6. IS Journals with the Greatest Female Representation

Journal	Female representation	In Master Journal List
<i>Annual Review of Information Science and Technology</i>	56%	Yes
<i>SCRIPT-ed</i>	56%	
<i>Journal of Research on Technology in Education</i>	58%	
<i>Journal of Informatics Education and Research</i>	62%	
<i>Online Journal of Nursing Informatics</i>	62%	
<i>Autonomous Agents and Multi-Agent Systems</i>	70%	Yes
<i>Archival Science</i>	71%	
<i>InterActions: UCLA Journal of Education and Information Studies</i>	74%	
<i>American Society for Information Science and Technology Bulletin</i>	83%	
<i>Journal of American Health Information Management Association</i>	85%	

A limitation of this study was the data extraction, resulting from journals without gender identifiable positions. Using a panel of culturally different people to evaluate gender could produce a larger sample.

VI. CONCLUSIONS

Little comfort can be drawn from the results of this investigation. While it could be argued that the perceived gender balance of editorial positions on IS journals merely reflects the actual gender balance of the ICT area generally, that latter situation is also deplorable. The concentration of female IS academics in journals focused on areas perceived as traditional female occupations, confirms journal publication as a microcosm of the wider problem of gender and diversity in the ICT sector.

Given that it is ten years since the publication of “The Incredible Shrinking Pipeline,” this suggests that there has been a distinct lack of success in attracting and retaining female ICT academics. The arguments supporting greater diversity do not require rehearsing, and appear to attract agreement from most ICT academics. Action, rather than agreement, is required.

ACKNOWLEDGEMENTS

The motivation for this research is due, in no small part, to the influence of my colleague Annemieke Craig. Some of this material was contributed to the *Perspectives on Gender* panel session at the 2006 Australian Women in Information Technology (AusWIT⁵) conference in

⁵ <http://www.auswit.org/>

Adelaide. I would also like to acknowledge the input from the reviewers and associate editor, which helped clarify and strengthen the content of this paper.

The manuscript was received 2/21/2007 and was with the authors for 1 month for two revisions.

REFERENCES

- Editor's Note:* The following reference list contains hyperlinks to World Wide Web pages. Readers who have the ability to access the Web directly from their word processor or are reading the paper on the Web, can gain direct access to these linked references. Readers are warned, however, that:
1. These links existed as of the date of publication but are not guaranteed to be working thereafter.
 2. The contents of Web pages may change over time. Where version information is provided in the References, different versions may not contain the information or the conclusions referenced.
 3. The author(s) of the Web pages, not AIS, is (are) responsible for the accuracy of their content.
 4. The author(s) of this article, not AIS, is (are) responsible for the accuracy of the URL and version information.
- ABS. (2006). *Australian Labour Market Statistics 6105.0* Australian Bureau of Statistics, Canberra.
- ASA. (2004). *2004 Report of the American Sociological Association's Committee on the Status of Women in Sociology* ASA, USA.
- Camp, T. (1997). "The Incredible Shrinking Pipeline." *Comm of the ACM* 40(10): 103-110.
- Carrington K. and A. Pratt. (2003). *How Far Have We Come? Gender Disparities in the Australian Higher Education System* Department of the Parliamentary Library Current Issues Brief No. 31 2002-03, Canberra.
- Carver, D. L. (2000). *Research Foundations for Improving the Representation of Women in the Information Technology Workforce*. Unpublished report. Baton Rouge.
- Cohoon, J. M. and W Aspray. (2006). "A Critical Review of the Research on Women's Participation in Postsecondary Computing Education," in Cohoon, J. M. and W Aspray [eds] *Women and Information Technology: research on underrepresentation* MIT Press, Cambridge MA, 137-80.
- CRA. (2006). *2004-2005 Taulbee Survey* Computing Research Association, <http://www.cra.org/statistics/survey/05/05.pdf> (current Nov 29, 2006).
- Freeman, P. and W. Aspray. (1999). *The Supply of Information Technology Workers in the United States*. Computing Research Association, Washington.
- Grant, L. and K. B. Ward. (1991). "Gender and Publishing in Sociology," *Gender and Society* 5(2):207-23.
- Lamp, J. W. (2004). *Index of Information Systems Journals*. Geelong, Deakin University. <http://lamp.infosys.deakin.edu.au/journals/> (current Nov. 27, 2006).
- Maser, K. J. (2006). "The Influences and Responses of Women in IT Education," in Trauth, E. M. *Encyclopedia of Gender and Information Technology* Hershey, PA, 808-12.
- McBrier, D. B. (2003). "Gender and Career Dynamics within a Segmented Professional Labor Market: The Case of Law Academia," *Social Forces* 81(4):1201-1266.

McElhinny, B., M. Hols, J. Holtzkener, S. Unger, and C. Hicks. (2003). "Gender, Publication and Citation in Sociolinguistics and Linguistic Anthropology: The Construction of a Scholarly Canon," *Language in Society* 32:299-328.

Smith, L. B. (2000). "The Socialization of Females with Regard to a Technology-Related Career: Recommendations for Change," *Meridian: A Middle School Computer Technologies Journal* 3(2).

Thomson-ISI. (2007). *Master Journal List* <http://scientific.thomson.com/mjl/> (current May 7, 2007).

Verbick, T. (2002). "Women, Technology, and Gender Bias," *Journal of Computing Sciences in Colleges* 17(3): 240-250.

ABOUT THE AUTHOR

John W. Lamp is a lecturer at the School of Information Systems at Deakin University's Waurn Ponds campus. He is best known for his authorship of the *Index of Information Systems Journals*, which both informs and is the focus of his research.

Copyright © 2007 by the Association for Information Systems. Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and full citation on the first page. Copyright for components of this work owned by others than the Association for Information Systems must be honored. Abstracting with credit is permitted. To copy otherwise, to republish, to post on servers, or to redistribute to lists requires prior specific permission and/or fee. Request permission to publish from: AIS Administrative Office, P.O. Box 2712 Atlanta, GA, 30301-2712 Attn: Reprints or via e-mail from ais@aisnet.org



Communications of the Association for Information Systems

ISSN: 1529-3181

EDITOR-IN-CHIEF

Joey F. George
Florida State University

AIS SENIOR EDITORIAL BOARD

Jane Webster Vice President Publications Queen's University	Joey F. George Editor, CAIS Florida State University	Kalle Lyytinen Editor, JAIS Case Western Reserve University
Edward A. Stohr Editor-at-Large Stevens Inst. of Technology	Blake Ives Editor, Electronic Publications University of Houston	Paul Gray Founding Editor, CAIS Claremont Graduate University

CAIS ADVISORY BOARD

Gordon Davis University of Minnesota	Ken Kraemer Univ. of Calif. at Irvine	M. Lynne Markus Bentley College	Richard Mason Southern Methodist Univ.
Jay Nunamaker University of Arizona	Henk Sol Delft University	Ralph Sprague University of Hawaii	Hugh J. Watson University of Georgia

CAIS SENIOR EDITORS

Steve Alter U. of San Francisco	Jane Fedorowicz Bentley College	Chris Holland Manchester Bus. School	Jerry Luftman Stevens Inst. of Tech.
------------------------------------	------------------------------------	---	---

CAIS EDITORIAL BOARD

Michel Avital Univ of Amsterdam	Erran Carmel American University	Fred Davis Uof Arkansas, Fayetteville	Gurpreet Dhillon Virginia Commonwealth U
Evan Duggan Univ of the West Indies	Ali Farhoomand University of Hong Kong	Robert L. Glass Computing Trends	Sy Goodman Ga. Inst. of Technology
Ake Gronlund University of Umea	Ruth Guthrie California State Univ.	Alan Hevner Univ. of South Florida	Juhani Iivari Univ. of Oulu
K.D. Joshi Washington St Univ.	Michel Kalika U. of Paris Dauphine	Jae-Nam Lee Korea University	Claudia Loebbecke University of Cologne
Paul Benjamin Lowry Brigham Young Univ.	Sal March Vanderbilt University	Don McCubbrey University of Denver	Michael Myers University of Auckland
Fred Niederman St. Louis University	Shan Ling Pan Natl. U. of Singapore	Kelley Rainer Auburn University	Paul Tallon Boston College
Thompson Teo Natl. U. of Singapore	Craig Tyrant W Washington Univ.	Chelley Vician Michigan Tech Univ.	Rolf Wigand U. Arkansas, Little Rock
Vance Wilson University of Toledo	Peter Wolcott U. of Nebraska-Omaha	Ping Zhang Syracuse University	

DEPARTMENTS

Global Diffusion of the Internet. Editors: Peter Wolcott and Sy Goodman	Information Technology and Systems. Editors: Alan Hevner and Sal March
Papers in French Editor: Michel Kalika	Information Systems and Healthcare Editor: Vance Wilson

ADMINISTRATIVE PERSONNEL

Eph McLean AIS, Executive Director Georgia State University	Chris Furner CAIS Managing Editor Florida State Univ.	Copyediting by Carlisle Publishing Services
---	---	--