Analyzing Information Systems Researchers' Productivity and Impacts: A Perspective on the H Index

PAUL JEN-HWA HU, University of Utah
HSINCHUN CHEN, University of Arizona

Quantitative assessments of researchers' productivity and impacts are crucial for the information systems (IS) discipline. Motivated by its growing popularity and expanding use, we offer a perspective on the h index, which refers to the number of papers a researcher has coauthored with at least h citations each. We studied a partial list of 232 top IS researchers who received doctoral degrees between 1957 and 2003 and chose Google Scholar as the source for our analyses. At the individual level, we attempted to identify some of the most productive, high-impact researchers, as well as those who exhibited impressive paces of productivity. At the institution level, we revealed some institutions with relatively more productive researchers, as well as institutions that had produced more productive researchers. We also analyzed the overall IS community by examining the primary research areas of productive scholars identified by our analyses. We then compared their h index scores with those of top scholars in several related disciplines

Categories and Subject Descriptors: K.7.m [**The Computing Profession**]: Miscellaneous

General Terms: Measurement

Additional Key Words and Phrases: Information systems, analysis of scholars' productivity and impacts, H index

ACM Reference Format:
Hu, P. J.-H. and Chen, H. 2011. Analyzing information systems researchers' productivity and impacts: A perspective on the H index. ACM Trans. Manag. Inform. Syst. 2, 2, Article 7 (June 2011), 8 pages.
DOI = 10.1145/1985347.1985348 http://doi.acm.org/10.1145/1985347.1985348

1. INTRODUCTION

Despite the importance of quantitative assessments of research productivity and impact, only a handful of Information Systems (IS) studies address them, and most focus on select journals and consider only articles published during a specific time period. For example, Mylonopoulos and Theoharakis [2001] and Walstrom and Hardgrave [2001] rank different IS journals (and conferences) by surveying voluntary researchers. Other research efforts have attempted to quantify the productivity of individual researchers to shed light on particularly prolific authors, prominent institutions, or popular research themes [Chua et al. 2002; Huang and Hsu 2005; Gallivan and Benbunan-Fich 2007; Lowry et al. 2007]. Although these analyses are essential for identifying highly active, productive researchers within a time period, they do not seem to emphasize impact equally. As a result, they are limited in revealing the usefulness and influences of a scholar's work on other researchers, or providing a good understanding of

Authors' addresses: P. J.-H. Hu, Department of Operations and Information Systems, David Eccles School of Business, University of Utah, Salt Lake City, UT; email: paul.hu@business.utah.edu; H. Chen, Artificial Intelligence Laboratory, University of Arizona, Tucson, AZ; email: hchen@eller.arizona.edu.

DOI 10.1145/1985347.1985348 http://doi.acm.org/10.1145/1985347.1985348

how scientific knowledge accumulates and moves forward in academia [Lowry et al. 2007]. Yet the impacts of individual researchers signify their contributions to extant literature and manifest how peers recognize and use their work [Bayer and Folger 1966; Hamilton and Ives 1982]. A review of relevant previous studies thus suggests the importance of both productivity and impact, though they tend to be evaluated with separate measures. In turn, this article addresses the need for and desirability of a single, holistic index that considers productivity and impact simultaneously.

Motivated by its growing popularity and expanding use, we offer a perspective on the h index, which refers to the number of papers a researcher has coauthored with at least h citations each [Hirsch 2005]. The h index indicates a scholar's scientific contribution in terms of quality, sustainability, and diversity; it is generally considered valid [Bornmann et al. 2008; van Leeuwen 2008], reliable [Lehmann et al. 2006], robust [Hirsch 2005; Vanclay 2007], and predictive of future achievements [Hirsch 2007]. This index indicates the cumulative contribution of a researcher over time and arguably may prevail over other prevalent measures (e.g., total papers published, total number of citations, average citations per paper published, number of "significant papers" published), because it strikes a balance between productivity and impact while mitigating the influences of self-citations, "big-hit" papers (i.e., manifestations of a power-law distribution), an excessive emphasis on review articles over original research, or seniority [Hirsch 2005]. In addition to measuring productivity and impacts, the h index can identify influential scholars; in information science research for example, it has differentiated "one-hit wonders" from enduring performers [Cronin and Meho 2006]. This index also supports academic performance evaluations in chemistry [Van Noorden 2007] and has suggested criteria for hiring, tenure, and promotion decisions in management [Mingers 2008]. Furthermore, the h index has been employed as a comparative tool for productive consumer research scholars versus prolific researchers in the entire marketing area, Ferber winners and their nominated peers, and prestigious marketing journals and their editors [Saad 2009]. According to our literature review, the h index thus is widely and increasingly considered for research performance assessments, grant funding decisions, award qualifications, fellowship applications, and tenure and promotion evaluations. In principle, a higher h index score suggests higher productivity and greater impact.

We therefore use the h index to measure prolific IS researchers' productivity and cumulative impacts. By anchoring on this index, our analyses arguably are more holistic, inclusive, and perpetual than those in previous studies that examine IS researchers' productivity, because our approach considers impact, uses diverse publication categories, and is not confined to any arbitrary time window. Furthermore, our focus on the h index allows for comparative analyses across productive IS researchers and their colleagues in related disciplines, such as computer science, information science, economics, and management.

2. DATA SOURCES AND ANALYSES

We generated a partial list of top IS researchers that featured all AIS LEO recipients and Fellows; the ICIS chairs, vice chairs, program chairs (2005–2009), and track chairs (2007–2009); advisory board members and editors (including editors-in-chief, senior editors, and associate editors) of major IS journals (*Management Information Systems Quarterly, Information Systems Research, Journal of Management Information Systems, Management Science, Decision Support Systems, Journal of the Association for Information Systems,* and *ACM Transactions on Management Information Systems*); and previously identified productive IS authors [Gallivan and Benbunan-Fich 2007; Lowry et al. 2007]. Our list thus includes 232 researchers who received doctoral degrees between 1957 and 2003.

We chose Google Scholar as the source for our analyses, primarily because it offers broader coverage of different publication categories (e.g., journals, conferences, monographs, books, patents, dissertations, research reports) than the Thomson ISI Web of Science or Scopus [Jacsó 2008]. With its convenient availability and easy access, Google Scholar is gaining popularity for bibliometric studies in different disciplines. Its use can help identify unique citations that signify researchers' broader intellectual and international impacts, beyond what is possible with the Web of Science or Scopus. Despite its tendency to generate more citations, Google Scholar can produce results highly correlated with those generated by the Web of Science or Scopus. Thus, Google Scholar should be considered a valuable resource for studies that measure or compare individual scholars' productivity and impacts [Bauer and Bakkalbasi 2005].

To obtain the h index scores of individual researchers, we developed a Java program to query Google Scholar, with batch processing, which generated citation information that could be used to derive each researcher's h index. Because of the relatively large number of scholars we considered, we adopted a threshold score to reduce the list from 232 to 143 and targeted these select researchers in our subsequent analyses. To confirm the appropriateness of this step, we used "Publish or Perish" [Harzing 2010] to reexamine those scholars with h index scores lower than the specified cutoff and found highly consistent results. For the few exceptions, we carefully verified the results and included any with h index scores exceeding the threshold. For each researcher passing this screening, we then employed "Publish or Perish" to query Google Scholar, using his or her name and including all subject disciplines, without limiting the search to any range of years. We exported the query results into a Microsoft Excel spreadsheet that contained the listing of articles that we previously had counted to derive the researcher's h index. For each researcher, we then reviewed the exported results manually and removed any articles not relevant to IS research. In several cases, we noticed different researchers with the same name who published articles related to information systems and thus conducted a further verification by using Google to identify author information for each article, including affiliations. To reduce potential temporal variations and biases, we performed all these queries between January 4 and 6, 2011.

Our analyses included individuals, institutions, and the overall community. For individuals, we attempted to identify some of the most productive, high-impact researchers, as well as those who exhibited impressive paces of productivity. At the institution level, we revealed some institutions with relatively more productive researchers, as well as institutions that had produced more productive researchers. We also analyzed the overall IS community by examining the primary research areas of productive scholars identified by our analyses. We then compared their h index scores with those of top scholars in several related disciplines.

3. RESULTS

3.1. H Index Scores

We obtained the h index scores of the 143 selected researchers. In Table I, we list those researchers with an h index score of 25 or higher. Four scholars achieve an h index score higher than 50, a remarkable milestone that signifies research excellence and outstanding contributions: Andrew B. Whinston, Hsinchun Chen, Izak Benbasat, and J. Nunamaker. Twenty-one researchers earn h index scores between 40 and 49.

3.2. Productivity Rate

We measured each researcher's productivity rate as the ratio between the researcher's h index score and the number of years since he or she received a doctoral degree. In Table II, we list those researchers with a productivity rate of 1 or higher, which indicates

Table I. Productive Information Systems Researchers with High H Indexes

H index	Name	H index	Name	H index	Name
55	Andrew B. Whinston	36	Robert J. Kauffman	28	Kar Yam Tam
54	Hsinchun Chen	35	C.W. Holsapple	28	Peter Weill
54	Izak Benbasat	35	Douglas Vogel	28	Richard Boland
51	J. Nunamaker	35	Michael J. Shaw	28	Suzanne Rivard
48	Daniel Robey	34	Hugh J. Watson	28	Yair Wand
48	Rajiv D. Banker	34	Thompson Teo	27	Abraham Seidmann
48	Ronald E. Rice	33	Blake Ives	27	Alexander Tuzhilin
48	Thomas H. Davenport	33	David Gefen	27	E. Burton Swanson
47	Jonathan Grudin	33	Eric K. Clemons	27	Gordon B. Davis
47	Kenneth L. Kraemer	33	Iris Vessey	27	Keng Siau
47	Varun Grover	33	Sue Newell	27	Ramayya Krishnan
46	Erik Brynjolfsson	32	Lorin Hitt	27	Robert O. Briggs
46	Robert W. Zmud	32	Mark Keil	27	Tosiyasu L. Kunii
45	Kalle Lyytinen	32	Maryam Alavi	26	Arun Rai
45	M. Lynne Markus	32	Ritu Agarwal	26	Dorothy Leidner
44	Rob Kling	32	Vallabh Sambamurthy	26	Kwok Kee Wei
44	Sirkka Jarvenpaa	31	Enid Mumford	26	Mary Lacity
44	Thomas W. Malone	31	Tridas Mukhopadhyay	26	Richard O. Mason
43	Alan R. Dennis	31	Zahir Irani	26	Sundeep Sahay
43	Detmar Straub	30	Colette Rolland	26	U. Varshney
43	Matthias Jarke	30	Henry C. Lucas, Jr.	25	Carol Saunders
43	William R. King	30	Ron Weber	25	Ephraim McLean
42	N. Venkatraman	30	Stuart Madnick	25	Jane Webster
40	Rudy Hirschheim	30	Viswanath Venkatesh	25	John C. Henderson
40	Wanda J. Orlikowski	29	Alok Gupta	25	John F. Rockart
37	John Mingers	29	George Wright	25	Patrick Y.K. Chau
37	Joseph Valacich	29	Makoto Nagao	25	Veda C. Storey
36	Albert L. Lederer	29	Stuart Madnick		
36	Gary Klein	28	Joey George		

they are successful, outstanding, or truly unique scholars [Hirsch 2005]. Among the researchers we analyzed, Jason Dedrick exhibited the highest productivity rate (4.60), followed by Paul Pavlou (4.0), Amrit Tiwana (3.0), Rahul Telang (2.75), Hsinchun Chen (2.57), David Gefen (2.54), and Erik Brynjolfsson (2.42). A total of thirteen researchers have a productivity rate of 2.0 or higher.

3.3. Productive Research Programs

We next grouped the productive researchers from Tables I and II by their affiliations to identify productive research programs. As we summarize in Table III, Georgia State University has the highest number of productive IS researchers, followed by the Massachusetts Institute of Technology, Indiana University, University of Minnesota, City University of Hong Kong, Bentley University, Carnegie Mellon University, University of Arizona, University of Maryland, and University of Texas at Austin. According to our analysis, productive IS researchers seem to cluster around just a few programs rather than spreading across many institutions.

3.4. Programs Producing Productive IS Researchers

To identify research programs that have generated highly productive IS scholars, we grouped the researchers in Tables I and II according to the institutions from which they received their doctoral degrees. As we show in Table IV, the University of Minnesota, Massachusetts Institute of Technology, New York University, Purdue University, University of Arizona, Case Western Reserve University, Stanford University, and University of Texas at Austin have produced more productive IS researchers than other institutions. In addition to producing researchers with high h index scores, the

Table II. Productive Information Systems Researchers by Productivity Rate

Rate	Name	Rate	Name	Rate	Name
4.60	Jason Dedrick	1.60	Rajiv D. Banker	1.28	Robert W. Zmud
4.00	Paul Pavlou	1.60	Rudy Hirschheim	1.27	Gurpreet Dhillon
3.00	Amrit Tiwana	1.60	Sandra Slaughter	1.24	J Nunamaker
2.75	Rahul Telang	1.54	James Thong	1.24	Gary Klein
2.57	Hsinchun Chen	1.53	Sundeep Sahay	1.22	B. Ramesh
2.54	David Gefen	1.52	Vallabh Sambamurthy	1.19	Jane Webster
2.42	Erik Brynjolfsson	1.50	Izak Benbasat	1.18	Sue Newell
2.35	Varun Grover	1.46	Douglas Vogel	1.18	Elena Karahanna
2.31	John Mingers	1.45	Lorin Hitt	1.17	Ramayya Krishnan
2.31	Viswanath Venkatesh	1.45	Ritu Agarwal	1.17	Joey George
2.26	Alan R. Dennis	1.45	M. Lynne Markus	1.16	Anitesh Barua
2.13	Thompson Teo	1.44	Dorothy Leidner	1.15	Enid Mumford
2.07	Alok Gupta	1.44	Mary Lacity	1.15	Andrew B. Whinston
1.93	Keng Siau	1.44	Ee Peng Lim	1.14	Rajiv Sabherwal
1.90	Wanda J. Orlikowski	1.43	Matthias Jarke	1.13	Rob Kling
1.88	Kalle Lyytinen	1.41	Zahir Irani	1.13	Thomas W. Malone
1.83	Robert Davison	1.39	Patrick Y.K. Chau	1.09	Kenneth L. Kraemer
1.83	Sirkka Jarvenpaa	1.35	Helmut Krcmar	1.09	P. Kannan
1.79	Detmar Straub	1.35	Soon Ang	1.07	Maryam Alavi
1.76	Joseph Valacich	1.35	Tridas Mukhopadhyay	1.06	C.W. Holsapple
1.75	Daniel Zeng	1.35	Michael J. Shaw	1.06	J. Leon Zhao
1.73	U. Varshney	1.33	Albert L. Lederer	1.05	Guy Gable
1.71	M.S. Krishnan	1.33	Paul Jen-Hwa Hu	1.05	Hemant Bhargava
1.71	Ronald E. Rice	1.33	Peter Weill	1.05	Christian Wagner
1.71	Thomas H. Davenport	1.32	Iris Vessey	1.04	Robert Galliers
1.69	Robert O. Briggs	1.31	Ram Gopal	1.04	Veda C. Storey
1.68	Mark Keil	1.30	Arun Rai	1.04	Suzanne Rivard
1.68	N Venkatraman	1.30	Daniel Robey	1.03	Blake Ives
1.64	Robert J. Kauffman	1.29	Alexander Tuzhilin	1.00	Alain Pinsonneault
1.60	Bernard Tan	1.28	James J. Jiang	1.00	Chrisanthi Avgerou

Table III. Institutions with Many Productive Information Systems Researchers

University	Researchers with High Index Scores	Researchers with High Index Scores or Productivity Rates
Georgia State University	7	8
Massachusetts Institute of Technology	7	6
Indiana University	3	3
University of Minnesota	3	3
City University of Hong Kong	2	5
Bentley University	2	3
Carnegie Mellon University	2	3
University of Arizona	2	3
University of Maryland	2	3
University of Texas at Austin	2	3
Boston University	2	2
Case Western Reserve University	2	2
University of British Columbia	2	2
University of Kentucky	2	2
University of Pennsylvania	2	2

University of Minnesota has generated the most number of productive researchers still in early stages of their careers, as indicated by the impressive productivity rates.

We also analyzed the primary research areas of the productive scholars in Table I. We specify three generic research areas—managerial/behavioral, technical/design-science, and economic—on the basis of reviews of articles coauthored by each researcher. We classified researchers who take the management science (modeling) approach as

Table IV. Institutions that Have Produced Many Productive Information Systems Researchers

University	Researchers with High Index Scores	Researchers with High Index Scores or Productivity Rates
University of Minnesota	7	11
Massachusetts Institute of Technology	6	6
New York University	4	5
Purdue University	4	5
University of Arizona	4	5
Case Western Reserve University	4	4
Stanford University	4	4
University of Texas at Austin	4	4
University of Pittsburgh	3	4
Harvard University	3	3
Carnegie Mellon University	2	6
University of British Columbia	2	3

Table V. Analysis of Primary Research Areas of Productive Information Systems Researchers

Primary Research Area	Researchers with High H Index Scores	Percentage
Managerial/behavioral	53	62.4%
Technical/design-science	16	18.8%
Economic	9	10.6%
Inter-disciplinary	7	8.2%

technical/design-science or economic, depending on the context or focal problems they investigated, such as examining system design (development) issues versus analyzing economic phenomena. We considered a scholar's research area "interdisciplinary" if he or she had coauthored a significant number of papers in multiple (generic) areas, defined as at least 30% of his or her published articles. As we show in Table V, the greatest number of productive IS researchers focus on managerial/behavioral issues associated with information systems, followed by investigations of technical/design-science research. This finding echoes the long-standing managerial/behavior tradition of IS research. Further analysis shows the predominance of managerial/behavioral research among productive scholars who received their doctoral degrees in the 1970's and 1990's. In addition, our analysis suggests a comparable number of productive researchers in economic and interdisciplinary areas.

In light of the findings of prior research that examines the h index in related disciplines, our analyses show that productive IS researchers have h index scores comparable to or even higher than those of top scholars in information science or management fields. The prolific researchers we identified in Table I (85 in total) achieve h index scores, as calculated with Google Scholar, ranging between 25 and 55 (average = 34.5, median = 32). Cronin and Meho [2006] use the Web of Science to analyze the h index of the most cited information science researchers in the United States and find index scores between 5 and 20 (average = 11.3, median = 12). According to some previous research [Bar-Ilan 2008; Meho and Rogers 2008], the h-index score calculated by Google Scholar tends to be approximately 2.2–2.6 times that calculated with the Web of Science; in this light, the productive IS researchers in Table I, as a group, have productivity and impacts similar to, if not greater than, those of prolific information science scholars. In research that uses Google Scholar to calculate the h index scores of senior management researchers [Mingers 2009], the scores range between 4 and 38 (average = 17.2, median = 16), which are lower than those of the productive IS researchers we identified. The productive IS researchers identified in this study reveal h index scores noticeably lower than those of prolific researchers in economics (http://ideas.repec.org/top/top.person.hindex.html); the latter scores reflect calculations based on Research Papers in Economics (RePEc), a database that contains journal articles and working papers. Among the 87 economists with h index scores of at least 25, the average score is 30.6 and the median is 29. The h index scores of productive IS researchers also seem lower than those of top computer science scholars (http://www.cs.ucla.edu/~palsberg/h-number.html), as calculated by Google Scholar, though this database features more conferences. Specifically, more than 460 computer science researchers have h index scores greater than or equal to 40 (average = 49.8, median = 46). At a broader level, the h index scores we have observed for productive IS researchers are significantly lower that those of top researchers in natural science areas, as calculated by the Web of Science, such as 50–155 for chemistry [Van Noorden 2007], 20–71 for physics, and 120–191 for life sciences [Hirsch 2005].

4. CONCLUSION

Although different yardsticks are available for assessing individual researchers' productivity and impact, the h index is a holistic measure that deserves our attention, mainly because of its strong academic basis, simplicity, easy access, and increasing interests by various academic disciplines. Even as the h index gains growing acceptance and use among different research communities [Rousseau 2006], some caution should be taken when interpreting our results. First, the purpose of our study is not to reexamine or validate reports of researchers' productivity from previous studies; rather, we offer a different and important perspective. Second, the h index scores calculated in our analyses do not take into account issues associated with coauthorship (e.g., authorship order, number of coauthors); as a result, our results likely overestimate individual researchers' productivity and impacts [Põder 2010]. Third, the use of the h index can reduce self-citation biases but offers no complete immunity from such inflations. In information science for example, self-citation biases may account for as much as 7% of a researcher's total citations [Cronin and Meho 2006]. Similar to most productivity measures, the h index is also subject to the influence of the size effect; all else being equal, researchers who study "popular" topic areas are more likely to have higher h index scores than otherwise [Ajiferuke 2010].

Additional limitations of our study signify areas warrant further investigations. For example, we examine a partial list of productive IS researchers which is neither comprehensive nor complete. Some prolific researchers likely have been omitted by our selection criteria. Despite its intended purpose, our choice of Google Scholar nevertheless represents a limitation, because its inclusive article sources tend to generate index scores higher than those calculated with the Web of Science or Scopus. Although we have performed thorough verifications of the analysis results, we cannot completely rule out potential miscounting problems, such as articles published by the same researcher but under different names or articles published by two different authors with identical names.

ACKNOWLEDGMENTS

The authors thank Han-fen Hu, Victor Benjamin, and Cathy Larson for their valuable assistance in data collection and analyses, which were instrumental to the reported study. Readers may access updated information related to "The h Index for Management Information Systems" at http://ai.eller.arizona.edu/resources/h-Index.pdf.

REFERENCES

AJIFERUKE, I., LU, K., AND WOLFRAM, D. 2010. A comparison of citer and citation-based measure outcomes for multiple disciplines. *J. Amer. Soc. Inf. Sci. Technol. 61*, 10, 2086–2096.

BAR-ILAN, J. 2008. Which h-index?—A comparison of WoS, Scopus and Google Scholar. *Scientometr. 74*, 2, 257–271.

BAUER, K. AND BAKKALBASI, N. 2005. An examination of citation counts in a new scholarly communication environment. *D-Lib Mag. 11*, 9 http://www.dlib.org/dlib/september05/bauer/09bauer.html (accessed 1/11).

BAYER, A. E. AND FOLGER, J. 1966. Some correlates of a citation measure of productivity in science. *Sociol. Educ. 39*, 4, 381–390.

BORNMANN, L., WALLON, G., AND LENIN, A. 2008. Is the h index related to (standard) bibliometric measures and to the assessments by peers? An investigation of the h index by using molecular life sciences data. *Res. Eval. 17*, 2, 149–156.

CHUA, C., CAO, L., COUSINS, K., AND STRAUB, D. W. 2002. Measuring researcher-production in information systems. *J. Assoc. Inf. Syst. 3*, 1, Article 6.

CRONIN, B. AND MEHO, L. 2006. Using the h-index to rank influential information scientists. *J. Amer. Soc. Inf. Sci. Technol. 57*, 9, 1275–1278.

GALLIVAN, M. J. AND BENBUNAN-FICH, R. 2007. Analysing IS research productivity: An inclusive approach to global IS scholarship. *Euro. J. Inf. Syst. 16*, 36–53.

HAMILTON, S. AND IVES, B. 1982. Knowledge utilization among MIS researchers. *Manag. Inf. Syst. Quart. 6*, 4, 220–235.

HARZING, A. W. 2010. Publish or Perish, version 3.1.4004. www.harzing.com/pop.htm.

HIRSCH, J. E. 2005. An index to quantify an individual's scientific research output. *Proc. Nat. Acad. Sci. USA 102*, 46, 16569–165672.

HIFSCH, J. E. 2007. Does the h index have predictive power? *Proc. Nat. Acad. Sci. USA 104*, 49, 19193–19198.

HUANG, H. H. AND HSU, J. S. C. 2005. An evaluation of publication productivity in information systems: 1999 to 2003. *Comm. Assoc. Inf. Syst. 15*, 555–564.

JACSÓ, P. 2008. The pros and cons of computing the h-index using Google Scholar. *Online Inf. Rev. 32*, 3, 437–452.

LEHMANN, S., JACKSON, A. D., AND LAUTRUP, B. E. 2006. Measures for measures. *Nature 444*, 1003–1004.

LOWRY, P. B., KARUGA, G. G., AND RICHARDSON, V. J. 2007. Assessing leading institutions, faculty, and articles in premier information systems research journals. C*omm. Assoc. Inf. Syst. 20*, 16, 142–203.

MEHO, L. I. AND ROGERS, Y. 2008. Citation counting, citation ranking, and h-index of human-computer interaction researchers: A comparison between scopus and web of science. *J. Amer. Soc. Inf. Sci. Technol. 59*, 11, 1711–1726.

MINGERS, J. 2009. Measuring the research contribution of management academics using the Hirsch-index. *J. Oper. Res. Soc. 60*, 1143–1153.

MYLONOPOULOS, N. A. AND THEOHARAKIS, V. 2001. Global perceptions of IS journals. *Comm. ACM 44*, 9, 29–33.

OPPENHEIM, C. 2006. Using the h-index to rank influential British researchers in information science and librarianship. *J. Amer. Soc. Inf. Sci. Technol. 58*, 2, 297–301.

PÕDER, E. 2010. Let's correct that small mistake. *J. Amer. Soc. Inf. Sci. Technol. 61*, 12, 2593–2594.

ROUSSEAU, R. 2006. A case study: Evolution of JASIS' Hirsch index. *Sci. Focus 1*, 1, 16–17.

SAAD, G. 2009. Applying the h-index in exploring bibliometric properties of elite marketing scholars. *Scientometr. 83*, 2, 423–433.

VAN LEEUWEN, T. 2008. Testing the validity of the Hirsch-index for research assessment purposes. *Res. Eval. 17*, 2, 157–160.

VANCLAY, J. K. 2007. On the robustness of the hindex. *J. Amer. Soc. Inf. Sci. Technol. 58*, 1, 1547–1550.

VAN NOORDEN, R. 2007. Hirsch index ranks top chemists. http://www.rsc.org/chemistryworld/news/2007/april/23040701.asp (accessed 1/11).

WALSTROM, K. A. AND HARDGRAVE, B. C. 2001. Forums for information systems. *Inf. Manag. 39*, 2, 117–124.

Received February 2011; revised March 2011; accepted March 2011