IS Old World v. New World: Don't Replicate, Obliterate!

Brian Fitzgerald
Lero – Irish Software Engineering Research Centre
University of Limerick, IRELAND
bf@ul.ie
http://www.brian-fitzgerald.com/miscellaneous/is-old-world-v-new-world/

Introduction

The issue of European (old world) versus North American (new world) approaches to research is often conveniently portrayed as a dichotomy between positivist and interpretivist research approaches. While this characterization is overly simplistic, it can then be expressed in a view that European researchers need better training in the North American genre of publishing (Lyytinen et al 2007). However this suggests that instead of being a dichotomy, these research genres are actually operating as a mini-hierarchy in that the North American model is presented as a superior genre[1]. Here I want to argue that the North American genre is not necessarily better, and hence adopt Hammer's terminology of not automating but obliterating existing business processes when re-engineering to argue that in the case of the publishing genre, the exhortation should also be: *Don't Replicate, Obliterate.*

Houston, We Have a Problem!

I have been interested in this overall topic for quite a long time (Fitzgerald and Adam 1996; Adam & Fitzgerald, 1996, 2000; Bacon & Fitzgerald, 2001, The Gadsby Syndrome), although I have not written about it in recent years, but have certainly been thinking about it.

To support my argument I will seek to illustrate that '*old world versus new world*' is not a recognisable or automatic dichotomy in other disciplines, and question why it should be so in IS? Table 1 presents an analysis of the geographic location of authors of papers which have been published in three pairs of journals in three disciplines in the five-year period 2003-2007:

- Information Systems (*Information Systems Research* and *MIS Quarterly*)

- Software Engineering (*IEEE Transactions on Software Engineering* and *ACM Transactions on Software Engineering Methodology*)

- General science (*Nature* and *Science)*

In terms of methodology, author affiliation was determined by institutional address. (Thus, European authors based in North America or North American authors based in Europe would be classified as North American and European respectively). It is very apparent that there is an enormous bias in the case of the IS journals with just 1% and 4% of published papers by those classified as European researchers. Even *Nature* and *Science* which have traditionally been seen as UK and US respectively have a much healthier

---

[1] Derrida has argued that many of the pairs of opposites which we tend to view as dichotomies are actually miniature hierarchies in so far as one end of the dichotomy is generally viewed as superior to the other (Murfin, 1996, pp. 186-187).
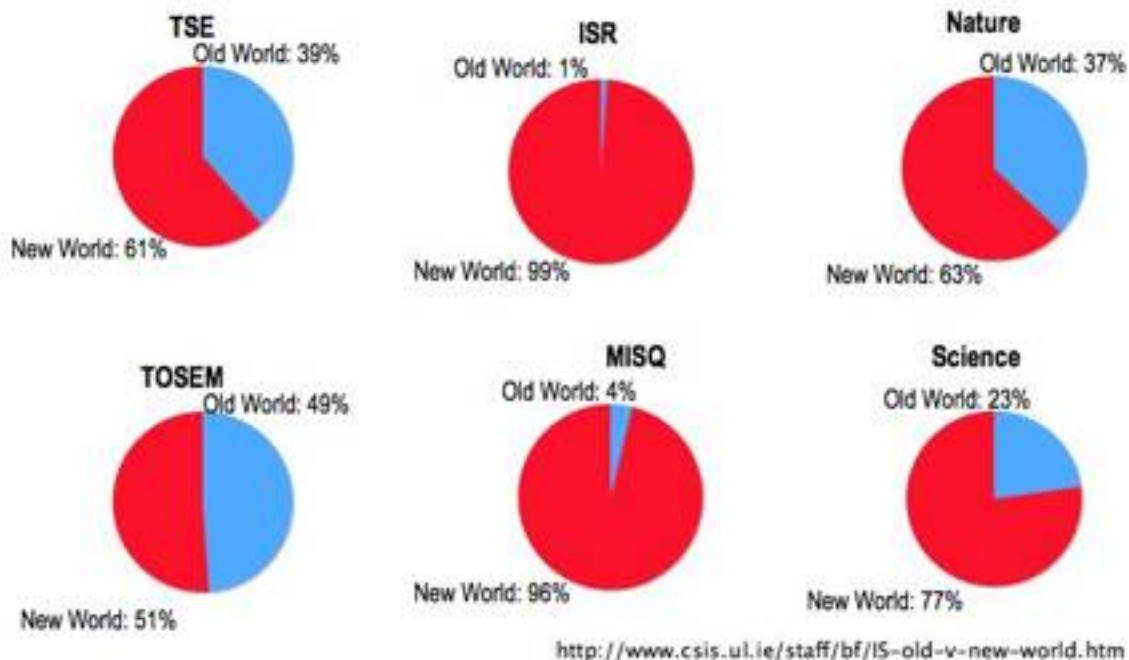
spread of author affiliation, while *TOSEM* has almost a perfectly healthy 50-50 split. Houston, we have a problem indeed!

Information Systems		Software Engineering		General Science	
ISR	*MISQ*	*TSE*	*TOSEM*	*Nature*	*Science*
1%	4%	39%	49%	37%	23%

Table 1: European Author Affiliation in Papers Published 2003-2007.

Or if you prefer to see that graphically!

High Impact or High Impact Factor Journals?

One can easily confuse high impact and high impact *factor* journals. *MIS Quarterly* has cited an increase in its impact factor – 4.978 in 2005 and 5.826 in 2007, making it the leading journal in all three journal categories in which MISQ is ranked by ISI: Management, Computer Science/Information Systems, and Information Science/Library Science.

Impact factor is a very simple calculation. For example the 2005 impact factor for MISQ (4.978) was calculated as follows:

A: Total number of citations to papers published in MISQ in 2003 and 2004: i.e. 229

B: Total number of papers published in 2003 and 2004 (excluding editorials and similar pieces): i.e. 46

A divided by B (i.e. 229/46) = 4.978

Impact factor can be interpreted as an estimate of the number of citations the average paper receives. However, rather than reflecting a majority of papers receiving about 5 citations, the actual pattern for paper citations in MISQ follows a power curve with a small number of papers receiving over 30 citations and about half the 46 papers receiving zero or one citations. In fact, two papers on the Technology Acceptance Model (TAM) received about 30% of the total number of citations contributing to this impact factor score.
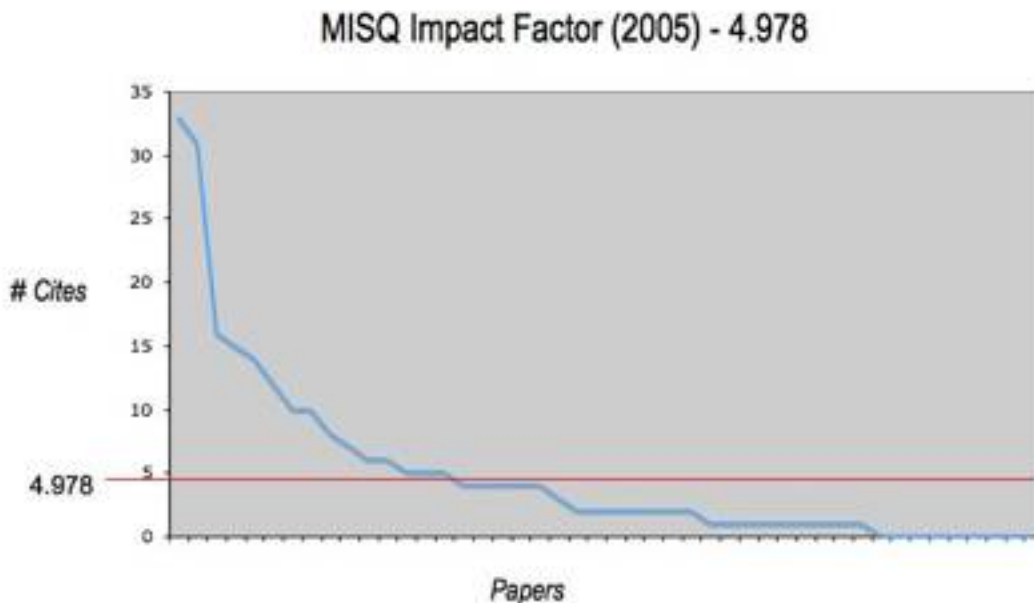
Straub (2008a 2008b) has discussed the propensity of the reviewing process to try avoid Type I errors whereby weak papers get through the reviewing system and are published. However an analysis of the citation pattern would suggest that Type I errors are occurring in the present system to the extent that the vast majority of papers are not frequently cited. Overall, this does not suggest that the current genre of publication in the top IS journals is working as it should be. While Straub (2008a 2008b) has called for a system that is biased towards preventing Type II errors – rejection of good papers, it is not obvious how that could be achieved.

Research Method Fetish in IS

One could argue that IS research papers tend be very formulaic in their construction. Indeed departure from the expected formula can be grounds for rejection as evidenced by Straub's (2008b) account of the paper reviewing process. In IS there seems to be a preoccupation with research method issues. Two personal experiences bring this into focus. In 2003, I acted as faculty for the Doctoral Consortium at ICSE (International Conference on Software Engineering). The consortium lasted one day and dealt with about 20 students. As far as I can recall, research method was mentioned just once (and that was by a student) and the focus was much more on the actual content of the research. A month later I acted as faculty for the Doctoral Consortium at ECIS (European Conference on Information Systems). The ECIS consortium lasted 2.5 days and involved fewer students. I would estimate that more than 50% of the time involved

discussions of research method issues. However I do not necessarily think that this was time well-spent in retrospect.

In IS the preoccupation with research method seems to result all too often in papers which pass inspection on this issue but fail to deliver in terms of exciting and interesting insights. Of course one would not argue that research methods should be inappropriately applied. However, the following excerpt from the reviewer comments for a paper accepted for publication in a leading Software Engineering journal (emphasis added) is quite provoking:

> *"I thought the <u>discussion of research approach was unnecessary</u>. I understand such discussions are <u>fashionable</u> in different research communities, but <u>I'm not sure what value this adds</u>. Additionally, it requires substantial familiarity with concepts such as action research and reductionism to interpret, as background on these areas is not included in the paper (and would only <u>further distract from the paper's main message</u>). The <u>paper's content speaks for itself</u>."*

Could one imagine such reviewer feedback from an IS journal? And would it be such a bad thing?

References

Adam, F. and Fitzgerald, B. (2000) [The status of the IS field: historical perspective and practical orientation, Information Research](), Vol. 5, No. 4.

Adam, F. and Fitzgerald, B. (1996) A Framework for Analysing the Evolution of the IS Field: Can IS become a Stable Discipline? in Coelho, J. et al. (Eds) *Proceedings of the 4th European Conference on Information Systems*, Lisbon, pp. 17-32

Bacon, J. and Fitzgerald, B. (2001) A systemic framework for the field of information systems, *Data Base*, Vol. 32, No. 2, pp. 46-67.

Fitzgerald, B. and Adam, F. (1996) The Future of IS: Expansion or Extinction?, *Proceedings of First Conference of the UK Academy for Information Systems*, Cranfield University, 10-12 April 1996

Lyytinen K, Baskerville, R, Iivari, J & Te'eni, D (2007). Why the old world cannot publish? Overcoming challenges in publishing high-impact IS research, *European Journal of Information Systems*, 16(4), 317-326.

Murfin, R. (Ed.) (1996) *Case Studies in Contemporary Criticism*, Macmillan Press, London.

Straub, D (2008a) Type II Reviewing Errors and the Search for Exciting Papers, *MIS Quarterly,* Vol. 32, No. 2, pp v-x.

Straub, D (2008b) Why Do Top Journals Reject Good Papers? *MIS Quarterly,* Vol. 32, No. 3, pp iii-vii.