

Yet another journal! – Is there any need?

Inaugural Editorial

Helen Edwards¹, Sue Childs², Briony Oates³, David Wainwright²

¹Faculty of Applied Sciences, University of Sunderland, Sunderland, SR6 0DD, UK,

helen.edwards@sunderland.ac.uk

²School, Northumbria University, Newcastle upon Tyne, NE2 1XE, UK,

sue.childs@northumbria.ac.uk, david.wainwright@northumbria.ac.uk

³School of Computing, Teesside University, Middlesbrough, TS 1 3BA, UK,

b.j.oates@tees.ac.uk

1 Introduction

Every day we are mercilessly bombarded by emails offering to publish our work in journals of all shades and hues: from the ‘pay for publication’ vanity publishers to the subscription-based traditional journals. So why on earth would we need another journal? What are we playing at?

As editors of this journal our long term goal is to be instrumental in enabling the development of an effective and accepted paradigm for evidence-based information systems (EBIS): providing evidence of its value and impact on information systems practice. Drawing on definitions from the health field (Muir Gray, 1997; Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996) we define EBIS as “*an approach to decision making in the design, adoption and implementation of information systems that uses the best evidence available, from both practitioner expertise and systematic research, in consultation with all stakeholders*”. In 2013, we argued that to achieve EBIS the information systems (IS) community needed to adopt a seven point agenda to provide the foundations for EBIS (B. J. Oates, Wainwright, & Edwards, 2013). Table 1 develops this call and includes an eighth action ‘building the community’.

Table 1: The Foundations for EBIS

Action	Potential Benefit	Current Status
1. To conduct empirical research into the design and adoption of IS strategies, tools, methods, processes or systems.	The findings from such work: can inform practice; stimulate further research; provide inputs into SLRs	The IS discipline has a long tradition of empirical research, so this is readily achievable.
2. To conduct systematic literature reviews (SLRs) that discover all relevant empirical studies via a transparent and repeatable process.	Synthesised findings of specific topics.	Relatively few SLRs have been conducted in IS (B. Oates, 2011).
3. To develop a web-based knowledge-base of SLRs.	An accessible knowledge-base on IS interventions with summaries of the evidence for a non-academic audience.	A limited number of SLRs and structured reviews exists scattered across traditional subscription based and open access journals, both on and off line.

Action	Potential Benefit	Current Status
4. To transmit the knowledge of the evidence to IS practitioners and other stakeholders.	Application of findings to practice to enhance IS success and reduce IS failure.	Some IS researchers have studied technological innovation diffusion, but translation research and knowledge transfer from IS researchers to practitioners and clients is not well-developed.
5. To include EBP in the IS curriculum studied by our future managers, developers and policy-makers.	Practitioners learn to (i) incorporate empirical evidence into their decision-making, and (ii) routinely collect data about their own IS projects, which can be added to the knowledge-base.	Not seen generally in the curriculum.
6. To establish evangelists for EBP.	Prominent individuals provide a nucleus around which other researchers can gather. To raise awareness and lead the movement.	Some voices exist such as (C Atkins & G Louw, 2000; C. Atkins & G. Louw, 2000; Baskerville, 2009; Moody, 2003; B. Oates, 2011; D.G. Wastell, 2011) but more are needed.
7. To conduct research into EBP itself.	Development of: <ul style="list-style-type: none"> • methods for synthesising previous research in IS which has a plurality of research methods and philosophical paradigms • effective dissemination approaches to translate research findings into practice • critical evaluations of the use of EBP in IS to understand the process, benefits and limitations, and to counter any unfounded claims of the evangelists. 	There is limited evidence of this activity for EBP in IS (David G Wastell, 2006) though this research is carried out in other disciplines, particularly health (Greenhalgh, Howick, & Maskrey, 2014; Smith & Rennie, 2014).
8. To build the community	<ul style="list-style-type: none"> • Research in practice, research with practitioners • Evaluation of systems in use. 	However, we need practitioner research and case studies of systems in practice. This is lacking, particularly in the private sector because of commercial confidentiality and sensitivity.

We intend this journal to be a conduit through which these actions can be achieved.

2 Why is 'Evidence-Based Information Systems' (EBIS) needed?

There have been many information systems (IS) project failures – the ones which have received most scrutiny in the UK are public sector failures. Commercial and private sector failures are much less transparent and visible however, which makes them hard to research, access and gather detailed empirical data. This is often due to powerful corporate interests, strategic and competitive drivers associated with brand, quality and image, and also the ever present threat of litigation and negative impacts on service provision from IT suppliers, vendors and consultants. Examples of documented IS failures include: Student Loans

Company (Collins, 2010; National Audit Office, 2010); FiReControl System (Hall, 2011; National Audit Office, 2011); Integrated Children's System (Ince & Griffiths, 2011; D.G. Wastell, 2011); and the National Programme for Information Technology, NPfIT (Currie, 2012). However, despite detailed scrutiny of such failures (and successes) the lessons do not appear to be learnt, and the causes of IS failure in one project are repeated in further IS projects: *"It is deeply depressing that after numerous highly critical PAC [Public Accounts Committee] reports on IT projects in recent years, the same mistakes have occurred once again."* (Public Accounts Committee, 2009).

Academic researchers have offered theories that would help predict whether a planned IS project is likely to fail, e.g. (Goldfinch, 2007; Heeks, 2003), but again their advice appears to be either ignored or unknown by project clients and developers. It is our contention that IS project failures will continue to be unacceptably high unless and until the IS profession and its clients adopt an evidence-based practice (EBP) approach, which in turn requires IS researchers to provide them with the necessary evidence to make informed decisions, and IS educators to instil the ethos of EBP in their students.

This peer-reviewed, open access journal aims to address the issues raised above. In addition to providing an archival repository for research articles our aim is to *move beyond* 'academics speaking unto academics' and *move towards* a diverse community of researchers, practitioners, and ICT policy and decision-makers. We seek to enable this community to build the evidence base for information systems and promote discussion about this evidence. This requires contributions from both the traditional research and practitioner communities to ensure that knowledge and insights are effectively translated.

3 Our philosophical approach

Our emphasis is on sharing empirical research. To achieve this we believe papers need to focus principally on the detail of the methodological rigour by which the data have been collected and analysed, so that the reader can have confidence in the recommendations and findings drawn from the work. This emphasis is relevant whether the evidence provided is from primary data or secondary data (via meta analyses and systematic literature reviews). This direction is in contrast to many information systems journals where the exposition of earlier work and theory predominates (Walsham, 2012).

Sharing empirical research to provide an evidence-base for information systems can only be achieved where the evidence is presented in the public domain. Hence resources need to be accessible. The current situation is that individuals can easily search for and identify research articles by electronic means such as Web of ScienceSM, the AIS Electronic Library, or Google Scholar. However, many papers are still inaccessible as they are maintained behind subscription-based barriers: beyond the reach of practitioners and academics residing outside resource-rich institutions.

Sharing empirical research provides an environment in which to build the EBIS community. Where information is shared effectively those providing the materials and those accessing them should have the opportunity to discuss their value, highlight their relevance and identify areas requiring further research. Our aim is for the EBIS Journal to provide an environment that is supportive of this philosophical viewpoint.

4 What the EBIS journal will provide.

4.1 *A journal plus evidence repository*

The journal will publish a wide range of types of evidence:

- Research paper
- Data paper
- Case study
- Case example
- Systematic literature review
- Evidence summary
- Conceptual/theoretical paper on Evidence-Based Practice (EBP) in IS
- Student paper
- Publication review
- News and views

Traditionally many of these, e.g. full systematic literature reviews, or data papers, would not be published in information systems journals. Moreover, in the UK there is currently no national repository for such evidence in the IS field, unlike e.g. social sciences and the humanities who are supported by the UK Data Archive (<http://www.data-archive.ac.uk>) to publish their research data, and health who are supported by the Cochrane Library (<http://www.thecochranelibrary.com>) to publish their systematic reviews. The only repository available to most IS academics is their own University repository. However, currently most University repositories do not hold research data but only research outputs. Until a national (or international) IS repository exists this journal will provide this important facility. This function of the journal will thus address Action Point 3 in Table 1.

4.2 *For writers: access to a rigorous publication venue for empirical studies and syntheses of empirical data*

The journal is independent, open access and peer reviewed. It will provide academic researchers, students and practitioners with an outlet for their empirical work by publishing:

- original empirical research in information systems (such as case studies)
- original data sets and their analysis (i.e. data papers)
- commentaries on information systems in practice (i.e. case examples)
- analytical reviews of previously published research (i.e. evidence summaries)
- systematic reviews (predominantly from a qualitative perspective) of existing research (i.e. systematic literature reviews)

Writers will retain the copyright of their work. However, they will grant the journal a non-exclusive and irrevocable license to distribute their article and work published in the journal will bear a CC-BY Creative Commons Licence. This allows others to distribute, rework, amend and build upon the article, even for commercial use, as long as they credit the authors of the original article. The journal will therefore provide

- a conduit for translation research from IS researchers to IS practitioners and clients: which is not well-developed in the discipline;
- a conduit for knowledge transfer from IS practitioners to IS researchers: which is also missing in the discipline.

This function of the journal will thus address Action Points 4 and 8 in Table 1, and support Action Points 1 and 2.

4.3 For readers: access to high quality resources, with clear findings to take away

The journal is open-access and readers, both academics and practitioners, can read and download material without subscribing or registering. It will therefore provide practitioners with a web-based knowledge-base, something which has been called for since 2000 (C Atkins & G Louw, 2000; C. Atkins & G. Louw, 2000). Practitioners can of course access the full research publications. However, many practitioners do not have the time to read this detail and to synthesise the evidence from different sources, see e.g. (Bennett, 2007). Therefore case examples, evidence summaries, and publication reviews will provide synthesised and/or summarised information. This function of the journal will thus address Action Point 4 in Table 1.

4.4 For academics and students, the opportunity to integrate evidence-based practice (EBP) into information systems education

The journal will provide academics with published evidence on IS, and debates about EBP in IS, that can be used in their teaching materials and teaching activities. It will provide students with a route to publish their own research from their undergraduate or masters dissertations or PhD study. When students become practitioners they can carry on with reading and publishing in the journal and it will provide them with a resource for their own informal Continuing Professional Development (CPD). The EBP habits instilled during practitioners' academic studies will enable them to be reflective practitioners: leading them to use evidence to inform their work and to undertake their own research within their practice and their organisational systems. This function of the journal will thus support Action Point 5 in Table 1.

4.5 For thinkers: the opportunity to discuss and reflect on the evidence

The journal will use open peer review and the social networking approach for article responses. Peer reviewers' feedback and authors' responses to this will be published along with the article. Peer reviewers will be encouraged to attach their name to their feedback. The journal will provide readers the opportunity to comment on articles (with moderation by the Editor to ensure fair play) without the requirement to submit formal responses as letters to the journal. The aim of these approaches is to establish dialogue, build partnerships, and enable co-creation of articles/resources, particularly between academics and practitioners. Additionally, the journal will publish news and views and conceptual/theoretical papers on EBP in IS. This function of the journal will thus support Action Points 6 and 7 in Table 1.

5 Conclusion

We anticipate that this journal will play a significant part in creating a paradigm shift in IS through the community creating and using a robust evidence-base. Moreover, this movement needs to do more than simply create effective research-practice interaction: it needs to inform educators and students. With EBIS embedded in the curriculum studied by future managers, developers and policy-makers, they will learn to incorporate empirical evidence into their decision-making: so that data collection, analysis and dissemination of their own IS projects can be added to the knowledge-base.

However, the journal will only achieve any of these objectives if the IS practice, research and educator community (ies) are involved. So, will the journal be a success, and

offer the benefits aimed for? Only if you the reader get involved and provide, review and comment on materials. It's over to you!

6 References

- Atkins, C., & Louw, G. (2000). Building bridges: constructing a framework for evidence-based information systems. *Health Informatics Journal*, 6(3), 121-126. doi: 10.1177/146045820000600302
- Atkins, C., & Louw, G. (2000). *Reclaiming Knowledge: A Case for Evidence Based Information Systems*. Paper presented at the European Conference on Information Systems. <http://aisel.aisnet.org/ecis2000/28>
- Baskerville, R. (2009). Preparing for evidence-based management. *Eur J Inf Syst*, 18(6), 523-525.
- Bennett, R. (2007). Sources and use of marketing information by marketing managers. *Journal Of Documentation*, 63(5), 702-726. doi: 10.1108/00220410710827763
- Collins, T. (2010, 19 March 2010). Over-optimism dogged Student Loans Company's IT-based scheme". *Computer Weekly*. Retrieved from <http://www.computerweekly.com/news/1280092399/Over-optimism-dogged-Student-Loans-Companys-IT-based-scheme>
- Currie, W. (2012). Institutional isomorphism and change: the national programme for IT – 10 years on. *Journal of Information Technology Theory and Application (JITTA)*, 27, 236-248. doi: 10.1057/jit.2012.18
- Goldfinch, S. (2007). Pessimism, Computer Failure, and Information Systems Development in the Public Sector. *Public Administration Review*, 67(5), 917-929. doi: 10.1111/j.1540-6210.2007.00778.x
- Greenhalgh, T., Howick, J., & Maskrey, N. (2014). Evidence based medicine: a movement in crisis? *BMJ*, 348, g3725. doi: 10.1136/bmj.g3725
- Hall, K. (2011, 11 July 2011). Sifting through the wreckage of the failed £469m FireControl public sector IT project., *Computer Weekly*. Retrieved from <http://www.computerweekly.com/news/2240104996/Sifting-through-the-wreckage-of-the-failed-469m-FireControl-public-sector-IT-project>
- Heeks, R. (2003). Most eGovernment-for-development projects fail: How can risks be reduced? *Government Working Papers*. Manchester: University of Manchester.
- Ince, D., & Griffiths, A. (2011). A Chronicling System for Children's Social Work: Learning from the ICS Failure. *British Journal of Social Work*, 1-17. doi: 10.1093/bjsw/bcr016
- Moody, D. L. (2003). Using the world wide web to connect research and professional practice: Towards evidence-based practice. *Informing Science*, 6, 31-48.
- Muir Gray, J. (1997). *Evidence-based healthcare: how to make health policy and management decisions*. London: Churchill Livingstone.
- National Audit Office. (2010). *The Customer First Programme: Delivery of student finance*. London: The Stationery Office Retrieved from http://www.nao.org.uk/publications/0910/student_finance.aspx.
- National Audit Office. (2011). *The failure of the FiReControl project*. London: The Stationery Office Retrieved from http://www.nao.org.uk/publications/1012/failure_of_firecontrol.aspx.
- Oates, B. (2011). *Evidence-based Information Systems: A decade later*. Paper presented at the The 19th European Conference on Information Systems – ICT and Sustainable Service Development, Helsinki, Finland. <http://aisel.aisnet.org/ecis2011/222>
- Oates, B. J., Wainwright, D. W., & Edwards, H. M. (2013). Endless Bad Projects or Evidence-Based Practice? An Agenda for Action. In Y. Dwivedi, H. Henriksen, D. Wastell & R. De' (Eds.), *Grand Successes and Failures in IT. Public and Private Sectors* (Vol. 402, pp. 619-624): Springer Berlin Heidelberg.

- Public Accounts Committee. (2009). *The National Offender Management Information System*. House of Commons, London: Public Accounts Committee Retrieved from <http://www.publications.parliament.uk/pa/cm200809/cmselect/cmpublicacc/510/51003.htm>.
- Sackett, D. L., Rosenberg, W., Gray, J., Haynes, R. B., & Richardson, W. S. (1996). Evidence based medicine: what it is and what it isn't. *BMJ*, *312*(7023), 71-72. doi: 10.1136/bmj.312.7023.71
- Smith, R., & Rennie, D. (2014). Evidence-based medicine—an oral history. *JAMA*, *311*(4), 365-367. doi: 10.1001/jama.2013.286182.
- Walsham, G. (2012). Are we making a better world with ICTs? Reflections on a future agenda for the IS field. *Journal of Information Technology*, *27*(2), 87-93. doi: 10.1057/jit.2012.4
- Wastell, D. G. (2006). Information systems and evidence-based policy in multi-agency networks: the micro-politics of situated innovation. *The Journal of Strategic Information Systems*, *15*(3), 197-217. doi: 10.1016/j.jsis.2005.11.001
- Wastell, D. G. (2011). *Managers as Designers in the Public Services – Beyond Technomagic*. Axminster, UK: Triarchy Press.