**Impact case study (REF3b)**

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| **Institution:** | University of Northumbria at Newcastle |
| **Unit of Assessment:** | 36B - Library and Information Management |
| **Title of case study:** | Managing electronic records: Changing behaviour and practice through evidence-based research |

## 1. Summary of the impact

This case study focuses on the impact of a significant body of empirical, evidence-based research on managing electronic records (ERM) which involved global participation. The impact relates primarily to the behaviour change of information and records professionals in terms of their practice (e.g. strategic planning, service delivery, advice, and education), ways of thinking/decision-making, and their engagement with and/or conduct of research. It is both incremental and transformative in nature. The beneficiaries are practitioners in the UK and internationally. Specific examples are the Chief of Archives and Records Management, United Nations, and those receiving training in six countries.

## 2. Underpinning research

Since 2003 McLeod (Reader and then Professor at Northumbria throughout the period) has led research to understand the challenges and current practice in managing records in the electronic environment and to evaluate tools in order to support positive change (References 1, 2, 3). Managing electronic records is challenging because of the myriad processes and constantly evolving systems and technologies used to create, capture, search, retrieve, share and preserve records, and the preferences and practices of people (records creators and users, records managers). ERM research is very limited with only one major global project (InterPARES) and relatively few doctoral studies. McLeod's AHRC funded AC[+]erm research project (Accelerating Positive Change in Electronic Records Management) (Reference 3) was therefore significant not only because of its subject coverage but also its methodology and global participation.

Conducted from 2007-10 AC[+]erm remains the largest ERM research project of its kind in the UK to date. It investigated the people, processes and technology facets of designing an organisation-centred architecture for ERM to understand better the issues and develop practical strategies to accelerate change in managing e-records. It included a novel comprehensive systematic literature review, three empirical investigations conducted via global e-Delphi studies and face-to-face colloquia in the UK, and a major dissemination activity running throughout the project, using a blog, website, tweets and presentations. These engaged practitioners and informed beneficiaries (with global reach) of ongoing findings in a timely manner, to influence change in understanding and practice as the research proceeded. Over 200 professionals and academics from multiple disciplines and different stakeholder groups were engaged to create the largest body of evidence on the topic worldwide. The mixed methods approach and technology-focused dissemination strategy was innovative at the time and pushed boundaries in terms of research in the discipline. The research found that:

- there is a need to envision and articulate successful ERM;
- people issues, rather than systems or technology, are at the heart of/central to the challenge;
- there is a wide range of critical success factors for ERM projects, applicable to all/most organisations, but tactics and solutions are contextualised and complex;
- the success and/or failure of ERM implementations can be contingent on the presence/absence of small or accidental factors;
- traditional records management principles are applicable but practice needs to be adapted for the digital environment;
- records professionals may be part of the problem as well as part of the solution;
- proportionate and risk- based approaches are needed (References 4, 5).

Further synthesis of the data, using the Cynefin sense-making tool, has led to a re-conceptualisation of the ERM challenge and the development of a strategic framework to

understand the nature of the people issues which enables selection of the appropriate approaches for managing them in particular circumstances (Reference 6). This is contributing to the development of theory as well as practice.

The AC⁺erm research project team, on which this case study focuses, was: Professor J McLeod, a Reader at the start of the research (2007-); Ms S Childs, Senior Research Fellow (2007-); Ms R Hardiman, Senior Research Assistant (2007-10), now an external PhD student at the University of Amsterdam, and PhD student Dr N Hay-Gibson (2007-11). All were part of LIM research at Northumbria University.

## 3. References to the research

1. Childs S. and McLeod J. (2004) 'Sharing research records and research data: primary research data and records for research in higher education institutions - findings from a research project in Higher Education.' *New Review of Information Networking*, **10** (2), pp. 131-145. http://dx.doi.org/10.1080/13614570500053866.

2. McLeod, J. (2004) 'ISO 15489: helpful, hype or just not hot?' *Archives & Manuscripts*, **32** (2), pp. 90-113. http://www.bldss.bl.uk/BLDSS/#searchRecordID=ETOCRN162525011 Copies made available on request.

3. McLeod J., Childs S. and Heaford S. (2007) 'Records management capacity and compliance toolkits: a critical assessment.' *Records Management Journal*, **17** (3), pp. 216-232. http://dx.doi.org/10.1108/09565690710833116 (Emerald Literati Award winner).

4. AC+erm project website and blog www.northumbria.ac.uk/acerm (2007-) of all research outputs including: final project report with main findings and methodological design; details of 9 articles in professional and academic journals; 21 national and international keynotes/conference papers/seminar presentations;17 consolidated documents from 87 interim ones; 22 tools for practitioners and academics (vignettes, phenomenological analyses, literature reviews); ERM custom Google search engine and Sqworl taxonomy, providing up-to-date access to selected quality global ERM resources; Twitter presence.

5. McLeod J., Childs S. and Hardiman R. (2011) 'Accelerating positive change in electronic records management: headline findings from a major research project.' *Archives & Manuscripts,* **39** (2), pp. 66-94. http://nrl.northumbria.ac.uk/5604/.

6. McLeod J. and Childs S. (2013) 'A strategic approach to making sense of the wicked problem of ERM.' *Records Management Journal*, **23** (2), pp. 104–135. http://dx.doi.org/10.1108/RMJ-04-2013-0009.

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## 4. Details of the impact

The AC⁺erm research has achieved impact through its findings (issues, solutions to adopt, and strategic ERM framework), its participative methodology and its innovative technology-enabled dissemination strategy. From 2007-2010 *website* visits tripled annually indicating continued and growing interest with direct links from major organisations indicating endorsement of quality, significance and use; the *custom Google search engine* of ERM resources attracted 2500+ queries; the *blog* attracted 6000+ unique and 1600+ (27%) returning visitors from 30+ countries (Source 1). The impact has been to *change, influence and shape the behaviour of practitioners and academics* in the following ways:

- ***Influencing the development of policy, practice and service provision:*** The United Nations Secretariat's Archives and Records Management Service (ARMS), based in New York, sets policy for its eight duty stations and 30,000 staff. ARMS' Chief notes that AC⁺erm's global and diverse operational scope "*make it particularly valuable*" to the organisation's operational environment. "*Bottom line, AC⁺erm jump-started our strategic planning, we're using it now to flesh out an ERM roadmap. The research is evidence-based, trustworthy, and gives the stakeholder perspective we need. Quite simply, an invaluable resource*" (Source 2).

- ***Influencing methods, new ways of thinking and economic impact***: AC⁺erm led to a different approach to decision-making and solution selection in the UN's ARMS. The proposed solution for a system to support a high-level, short-term panel investigating a politically sensitive incident was upgraded, despite a significant cost increase, after ARMS applied AC⁺erm's proportionate, risk-based paradigm in its assessment of the proposal (Source 2). AC⁺erm enabled ARMS to "*redefine the bottom line*" and determine that reputation. Member States' interests and long term access to records required the upgraded solution. Conversely, the same paradigm resulted in ARMS' decision *not* to invest in a digital preservation system for records of a "*high visibility*", "*historic*" UN commission, but instead to recommend "*disposal of the dataset on [its] closure*" and preserve duplicates in file-based applications/paper. This enabled ARMS *"to realize cost avoidance to the organization in the order of $300k.*" The proportionate approach was accepted because AC⁺erm's risk management is "*explicitly positive and constructive (rather than just risk mitigation)* [and] *supports strategic and appropriate levels of resource allocation*". This validation of AC⁺erm led to the issuance of practical guidance for UN staff on ERM risk: https://archives.un.org (Source 2).

- ***Shaping continuing professional development in the records management discipline***: AC⁺erm led to the UN ARMS Chief's three-month sabbatical at Northumbria (2013) - the first awarded by the UN in records management. She extended her research knowledge, evaluated the new ERM strategic framework and is now implementing a phased adoption in the Secretariat. The sabbatical programme is limited, competitive and prestigious and aims to expose staff to "state-of-the-art research and practices on issues on the international agenda." She used AC⁺erm outputs to develop a week-long development programme in May 2013 for UN staff in Bangkok: *"Content, activities, even training techniques drew heavily on the vignettes, Cynefin synthesis, and Delphi studies. Really great response"* (Source 2). AC⁺erm also led to practitioners engaging in research. Elizabeth Lomas, then Records Manager at the Royal Household, applied to study a PhD full-time with McLeod because of her interest in AC⁺erm (Nov 2007). Subsequently two of her 30 UK participants in the doctoral study actively discussed *"the benefits they perceived would come out of ... [the] AC+erm project and stated that this had made them want to actively take part in their 'own' research"* (Source 3).

- ***Influencing CPD, education and research internationally and reframing debates***: Academics in the UK, China, Canada, New Zealand and Scandinavia have used AC⁺erm since 2011 to inform the content of modules and lectures for continuing professional development (CPD) with practitioners and for undergraduate/postgraduate students. For example: *"I've used those particular key findings statements [the importance of taking into account the people dimension, and also the role played by records managers (i.e. being part of the problem)] as scene setters, to establish why we need to talk about and investigate these factors*" (Source 4, Respondent 5). "*[The final project report] is an excellent tool to discuss the complexity of RM environments in an effective and relatively simple way*" (Source 4, Respondent 2). Benefits are that *"Students understand the interconnectedness of the three perspectives* [people, processes, technology] *and their future role as mediators between often conflicting interests"* (Source 4, Respondent 2) and "the findings highlight the importance of organizational and human behavioural issues as challenges in implementing ERM systems (Source 4, Respondent 3). *"It is incredibly useful to be able to go beyond all the anecdotal evidence that is characteristic of records management"* (Source 4, Respondent 5). "*The findings informed me, as a teacher, substantively; they changed the content of my teaching of change management in that more evidence-based data and examples were available*" (Source 4, Respondent 6).

  AC⁺erm has *"made a very important contribution to scholarly research in the discipline through its development of an 'electronic' Delphi Technique";* its "*innovative research methodology*" has been used annually since 2011 in two postgraduate research modules *"when preparing students to approach their own research projects. It has opened the way to go beyond the limitations of surveys and focus groups*" (Source 4, Respondent 9). The same (international) respondent commented that the AC⁺erm research was *"especially important because so little real research has been done within organisations about records management"* (Source 4, Respondent 9).

  AC⁺erm has also influenced a book co-authored by academics in Canada and New Zealand

which *"opens with a quotation from the Final Project Report"* (Source 5). *"The findings from AC+erm influenced the book from the outset, i.e. from the initial proposal stage in mid-2012 (and influence has been ongoing). Findings provided a solid foundation for the development of our ideas, and from the publisher's perspective I think were instrumental in the proposal being accepted - i.e. they provided the necessary credibility and authority"*. The book's focus *"has been strongly influenced by one of the most relevant findings of the project, that is, the centrality of 'people issues'"; "key findings have provided a very effective frame for [it]"* (Source 5). The key readership of the book will be LIM and records management professionals as well as students of this discipline.

The impact has reached information, records and archives practitioners/academics globally, in a range of organisations in different sectors - public, private, international. It is significant because it is changing how a professional sector thinks and operates: *"The fact that these findings represent empirical data from an international study provides the necessary weight and authority to very effectively influence ideas"* (Source 4, Respondent 5).

## 5. Sources to corroborate the impact

1. Document containing AC$^+$erm website/blog visitor analytics 2007-2010: 11,340 website visits; 6000+ unique and 1600+ (27%) returning blog visitors from 30+ countries; 2500+ custom Google search engine queries. Website links from National Archives of Scotland www.nas.gov.uk/recordkeeping/erguidance/startingpointserm.asp; ARMA International Educational Foundation Resources www.armaedfoundation.org/resources.html.

2. Chief of Section, Archives and Records Management, United Nations, New York *'Note on using AC$^+$erm in the UN Secretariat in strategic planning, in policy and guidance, in practice, and in staff development programmes'*. Corroborates impact on development of UN's strategic planning, policy, practice (service delivery) and guidance; influence on own thinking on ERM in the context of the consequences of decisions/actions taken; contribution to continuing professional development.

3. Lomas, E. (2013) *An autoethnography exploring the engagement of records management through a computer mediated communication focused co-operative inquiry*. PhD thesis. Northumbria University. pp. 113. http://nrl.northumbria.ac.uk/14398/ Corroborates impact on contributing to the continuing professional development of practitioners by engaging them in research that used a novel international co-operative inquiry.

4. Data from a retrospective email survey of HEI academics in the UK and overseas requesting details of use of the AC$^+$erm research project outputs and their impact up to July 2013. Quotes from four of the nine respondents, identified as (Rx), evidence impact on continuing professional development for practitioners; on the teaching syllabus for undergraduate/post-graduate students, some of whom are practitioners studying part-time; and on their own research.

5. Oliver G. and Foscarini F. *Records management and information culture: Tackling the people problem.* Facet. ISBN 978-1-85604-947-4 Forthcoming Dec 2013. http://www.facetpublishing.co.uk/title.php?id=9474&category_code=502 Emails from the authors.