

Reinventing archival methods: reconceptualising electronic records management as a wicked problem

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Paradigms are powerful because they create the lens through which we see the world. The power of a paradigm shift is the essential power of quantum change, whether that shift is an instantaneous or a slow and deliberate process.¹

Although the renowned writer, speaker and academic Dr Stephen Covey focused on personal development, his ideas are relevant to the challenges we face in managing records as I believe we need to look at them through a different lens, or lenses, in reinventing our methods. And, although the Recordkeeping Roundtable members may not use the word ‘lens’, it seems that it is precisely what they are doing when they propose different approaches to appraisal and access.

I perhaps should make it clear that my perspective on reinventing archival methods is very much one which focuses on the need to do this to improve how we manage records for the more immediate tomorrow, and not primarily ‘to create a stable archival record of the 21st century’.² This is not because I disagree with the need to do the latter but because I believe that the role of records management is to support the organisation in conducting its ‘business’ and to add value by both enabling and protecting it. Its primary role is not to create archives, though their capture is an element of it. Records management must therefore be aligned to business and information systems, governance including security, and risk management.

From the research I have led, particularly the multi-disciplinary AC⁺erm and DATUM projects,³ and reading from other disciplines, my colleagues and I have suggested two lenses that offer ways forward for addressing the issues and professional challenges we are facing. The first is to view managing records in today’s digital world as a ‘wicked problem’. The second is to take a proportionate approach to their management. They are both holistic and yet can be applied to particular aspects of managing records.

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The wicked problem of managing records in the digital world⁴

Wicked problems have 10 characteristics:

- (1) lack of a definitive formulation of the problem;
- (2) no criteria for knowing when the, or a, solution has been found;
- (3) solutions that are neither true or false, but good or bad;
- (4) no immediate or ultimate test of a solution;
- (5) every solution counts and has significant consequences;
- (6) no criteria for proving that all solutions have been identified and considered;
- (7) an essentially unique problem;
- (8) a symptom of another problem;
- (9) no criteria for determining the 'correct' explanation of the problem; and
- (10) leaders/managers have no right to be wrong.⁵

They contrast with tame problems,⁶ which are well defined and belong to groups of similar problems that can be solved in similar ways, and where there are a limited number of alternative solutions which can be evaluated. Importantly, tame problems have solutions that can be tried and abandoned with little consequence.

In the digital world, records management exhibits the characteristics of a wicked problem, not a tame one. For instance, formulation of the problem *is* the problem as it is determined by context, perspectives and system/service requirements, and these will differ depending on the stakeholder, for example, the CEO, legal counsel, IT manager, creator/user or records manager (characteristic 1). The different contexts, cultures, histories and contingencies at a given point make an organisation's digital records problem unique (characteristic 7).⁷ As others have said, there is no 'silver bullet' solution but many potential ones with no criteria for proving they have all been considered or for knowing when the/a solution has been found, only that the solution is good/good enough or not (characteristics 2, 3, 6). The full impact of a solution, be that software, policy or something else, is only evident over time. Witness the different consequences of electronic records management systems versus organic SharePoint implementations on organisations and users (characteristic 4). Records managers and systems project teams have no right to have chosen the wrong system, as some in the profession have voiced (characteristic 10). Contrast this with science, where hypothesis testing and experimentation are an integral part of the process regardless of a positive, negative or inconclusive outcome.⁸

Immediately we view records management in the digital world as a wicked problem, we reject the idea that we can precisely formulate and explain it or know when we have found a solution, only that the solution chosen will have consequences. One might say that we already know this; indeed we do but this lens is somehow liberating. It explains why there is no silver bullet and why 'keep trying to find a *single* solution for a problem of inherent diversity and complexity'⁹ is inappropriate. It also implies that perfection is neither attainable nor necessary. And this brings me to the second lens – the proportionate approach.

Perhaps because I studied statistics I am very familiar with the Pareto Principle, or 80/20 rule,¹⁰ which states that 80% of the results are generated by 20% of the causes. In other words, 20% of the input is responsible for 80% of the output. I have argued¹¹ that we should apply this proportionate approach to managing records by, for instance, focusing on the 'vital few' records for the organisation (20%) rather than the 'useful

many' (80%); or, as Barbara Reed put it when she recently called on professionals to embrace the principle, 'a more pragmatic approach' devising strategies to capture and manage *key* evidence of business.¹² Perfection is rarely necessary, let alone achievable, in the digital context and striving for it may prevent us from accepting a good enough, fit-for-purpose outcome.¹³ 'A good battle plan that you act on today can be better than a perfect one tomorrow'¹⁴ and action today is vital.

The proportionate approach can be applied holistically and also to specific aspects of managing records. Appraisal, one of the two Roundtable issues papers,¹⁵ is an obvious one. The omnipresent challenge, the elephant in the room, is that it is impossible to be perfect or right all the time because it is impossible to know all that is really important for the future. The question 'why not keep everything?' has been posited but the reality is that all information regardless of format is retained at a cost.¹⁶ Appraisal, however imperfect, is a necessary tool.

But this approach demands we adopt a risk management mindset, something which Kate Cumming and Anne Picot highlight in their issues paper.¹⁷ In the past this was perhaps uncomfortable for some professionals or at least unusual, but today is far more accepted and practised in business, for example in the context of corporate and information governance.

In conclusion, I am what Kate Cumming would describe as a 'loyal sceptic',¹⁸ willing to challenge the status quo but not to undermine or belittle the profession I remain so passionate about. So, whilst our methods and approaches may be lagging behind the technology development curve, there is light in the tunnel and it is not that of an oncoming train. There is usually quite a time lag between innovation and its practical use, as RFID, standard barcodes and QR codes testify,¹⁹ and technology can be used in unanticipated ways. So we cannot have all the answers but we must proactively monitor technology developments *and their actual use*. We should recognise that we are dealing with a wicked problem for which there is no single best solution but one where there are many 'good enough' solutions which we should try, including taking a proportionate approach.

Addressing this wicked problem will require our expertise in very specific areas, such as those already discussed by the Roundtable, as well as expertise from other disciplines such as computer science. I therefore hope the Roundtable will engage in multi-disciplinary discussions about new ways of dealing with it and push the boundaries of the profession.

Endnotes

1. Stephen R Covey, *The Seven Habits of Highly Effective People. Powerful Lessons in Personal Change*, Simon & Schuster, London, reprinted 1994, p. 32.
2. Recordkeeping Roundtable, 'Reinventing Archival Methods: Issues Papers', available at <<http://rkroundtable.org/2013/09/28/reinventing-archival-methods-issues-papers/>>, accessed 24 February 2014.
3. AC⁺erm, <<http://www.northumbria.ac.uk/acerm>> and DATUM, <<http://www.northumbria.ac.uk/datum>> projects, accessed 24 February 2014.
4. J McLeod and S Childs, 'A Strategic Approach to Making Sense of the "Wicked" Problem of ERM', *Records Management Journal*, vol. 23, no. 2, 2013, pp. 104–35, available at <<http://dx.doi.org/10.1108/RMJ-04-2013-0009>>, accessed 24 February 2014.
5. WJ Rittel and MM Webber, 'Dilemmas in a General Theory of Planning', *Policy Sciences*, vol. 4, 1973, pp. 155–69.
6. *ibid.*; J Conklin, *Dialogue Mapping: Building Shared Understanding of Wicked Problems*, John Wiley and Sons, Chichester, 2006, pp. 14–18.

7. J McLeod, S Childs and R Hardiman, 'Accelerating Positive Change in Electronic Records Management: Headline Findings From a Major Research Project', *Archives and Manuscripts*, vol. 39, no. 2, 2011, pp. 66–94.
8. See McLeod and Childs for a fuller discussion of these characteristics.
9. Chris Hurley, 'Do We Agree on What the Problems Are?', presentation at the Recordkeeping Roundtable workshop, Sydney, 29–30 November 2012, available at <<http://rkroundtable.org/2012/12/14/reinventing-archival-methods-report-whats-next/>>, accessed 24 February 2014.
10. The Pareto Principle is 'named after the Italian economist Vilfredo Pareto, who in 1906 observed that 80% of property in Italy was owned by 20% of the Italian population'. In the 1930s Joseph Juran, renowned quality control and management guru, adopted the concept and generalised it to help managers and organisations distinguish between the 'vital few' (20%) and the 'useful many' (80%), coining the phrase the 'Pareto Principle'. See <<http://www.gassner.co.il/pareto/>>, accessed 24 February 2014.
11. J McLeod, 'On Being Part of the Solution, Not the Problem: Taking a Proportionate Approach to Managing Records', *Records Management Journal*, vol. 22, no. 3, 2012, pp. 186–97, available at <<http://dx.doi.org/10.1108/09565691211283147>>, accessed 24 February 2014. Article based on a keynote presentation given at the iRMS (Information and Records Management Society) Conference, Brighton, 27–29 May 2012, 'Proportion Not (Necessarily) Perfection: Progressing Practice for Positive Progress'.
12. Barbara Reed, Recordkeeping Roundtable Workshop, Sydney, 29–30 November 2012, available at <<http://rkroundtable.org/2012/12/14/reinventing-archival-methods-report-whats-next/>>, accessed 24 February 2014.
13. Cassie Findlay, 'Reinventing Archival Methods: Report and What's Next?', 2012, available at <<http://rkroundtable.org/2012/12/14/reinventing-archival-methods-report-whats-next/>>, accessed 24 February 2014.
14. Reportedly said by General George S Patton, available at <http://thinkexist.com/quotes/general_george_s_patton/>, accessed 24 February 2014. Alternatively cited as 'I would rather have a good plan today than a perfect plan two weeks from now.'
15. Kate Cumming and Anne Picot, 'The State of Appraisal Today', 2012, available at <<http://recordkeepingroundtable.files.wordpress.com/2013/09/appraisal.pdf>>, accessed 24 February 2014.
16. Cassie Findlay, 'Reinventing Archival Methods in The Hague', presentation for 'Paradigm Shift', a seminar in honour of Hans Hofman, National Archives of the Netherlands, The Hague, 27 January 2014, available at <<http://rkroundtable.org/2014/02/05/reinventing-archival-methods-in-the-hague/>>, accessed 24 February 2014.
17. Cumming and Picot, p. 4, 'Appraisal should be deployed as a risk management or abatement strategy.'
18. Findlay, 'Reinventing Archival Methods'.
19. See M Roberti, 'The History of RFID Technology', *The RFID Journal*, available at <<http://www.rfidjournal.com/article/view/1338/>>, accessed 24 February 2014; R Schulcz and G Varga, 'Radio Frequency Identification', in *Advanced Communication Protocol Technologies: Solutions, Methods, and Applications*, K Tarnay et al., 2011, pp. 502–26, available at <<http://dx.doi.org/10.4018/978-1-60960-732-6.ch023>>, accessed 24 February 2014; T Seideman, 'Barcodes Sweep the World', *Invention & Technology Magazine*, vol. 8, no. 4, 1993, available at <http://tonyseideman.com/Bar_Codes.pdf>, accessed 24 February 2014.