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Bemused by bibliometrics: using citation analysis to evaluate research quality
Nicholas Joint,

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(2012), "Bibliometric practices and activities at the University of Vienna", Library Management, Vol. 33 Iss 3 pp. 174-183 <<https://doi.org/10.1108/01435121211217199>><https://doi.org/10.1108/01435121211217199>

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Bemused by bibliometrics: using citation analysis to evaluate research quality

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Nicholas Joint

Andersonian Library, University of Strathclyde, Glasgow, UK

Abstract

Purpose – The purpose of this paper is to examine the way in which library and information science (LIS) issues have been handled in the formulation of recent UK Higher Education policy concerned with research quality evaluation.

Design/methodology/approach – A chronological review of decision making about digital rights arrangements for the 2008 Research Assessment Exercise (RAE), and of recent announcements about the new shape of metrics-based assessment in the Research Excellence Framework, which supersedes the RAE. Against this chronological framework, the likely nature of LIS practitioner reactions to the flow of decision making is suggested.

Findings – It was found that a weak grasp of LIS issues by decision makers undermines the process whereby effective research evaluation models are created. LIS professional opinion should be sampled before key decisions are made.

Research limitations/implications – This paper makes no sophisticated comments on the complex research issues underlying advanced bibliometric research evaluation models. It does point out that sophisticated and expensive bibliometric consultancies arrive at many conclusions about metrics-based research assessment that are common knowledge amongst LIS practitioners.

Practical implications – Practical difficulties arise when one announces a decision to move to a new and specific type of research evaluation indicator before one has worked out anything very specific about that indicator.

Originality/value – In this paper, the importance of information management issues to the mainstream issues of government and public administration is underlined. The most valuable conclusion of this paper is that, because LIS issues are now at the heart of democratic decision making, LIS practitioners and professionals should be given some sort of role in advising on such matters.

Keywords Information operations, Research, Performance measures, Quality assessment, United Kingdom, Universities

Paper type Viewpoint

Introduction

The now defunct UK Research Assessment Exercise (RAE) has been a labour-intensive enterprise occurring at regular intervals over the last two decades. The RAE[1] was crucial in deciding who survived in the world of academic research – overseen by the UK's Higher Education Funding Council for England (HEFCE) it has determined the level of funding which each British university receives for its research work.

It was always an exhausting undertaking: it evaluated the quality of UK university research in a complex variety of ways, one of which involved the scrutiny of published research articles by academic experts. Thus, lists of references had to be created and documents supplied from these lists. This meant that, sadly, librarians were increasingly involved in suffering the penitential rites of the RAE, especially in recent years when the bureaucratic procedures of the RAE had expanded to a peak of complexity.



Because of this involvement, many British librarians engaged in preparing lists of research publications for the last UK RAE will have one day etched into their memory. That day was Wednesday 22 March 2006.

On that day the present Prime Minister addressed the House of Commons as the then Chancellor of Exchequer and with a casual turn of phrase announced what amounted to the death of the RAE and the fact that the next RAE in 2008 would not have to take place (MacLeod, 2006). A major aspect of Higher Education (HE) had been turned on its head as a brief aside in a Budget Statement – an announcement which is supposedly concerned with broad matters of UK fiscal and monetary policy.

For any librarian who had been engaged in compiling lists of thousands of research publications in cooperation with exhausted colleagues across since 2001, the obvious question to ask was “If you wanted to scrap the next RAE, couldn’t you have done it in 2001, not just as we’re finishing preparations for 2008”?

Put that to one side: we now know that at least the 2008 RAE did go ahead as planned, meaning librarians’ labours had not been wasted. But at the time our confusion about whether the next RAE had been scrapped (or not) was compounded by talk of a new plan for research evaluation, one based on “metrics”. No-one seemed to know what this “metrics” system was, other than some sort of numeric system which could do mechanically what the great minds of the RAE assessment panels took great care to do by human scrutiny.

Initially, simple measures of research funding were suggested (librarians cheered up: that did not involve us). Subsequently the focus has turned to bibliometrics, especially citation analysis (librarians became worried: that could involve us).

Lessons of the last RAE

The underlying theme of this column is one that has pervaded many of the previous ones in this series. This is the belief that librarians’ expertise is often undervalued, and is frequently ignored when managers and policy-makers stray into areas that are properly the domain of library and information science (LIS) professionals. A recent column on the inept government handling of information management issues in national security was based on this theme (Joint, 2008). This present column will look at the topic of evaluating research quality and see if LIS expertise has been similarly sidelined.

As a starting point, it is worth looking back at the history of the RAE to see how LIS-related matters were handled in this now effectively defunct enterprise.

Because the findings of each RAE were based to some extent on the evaluation of published research papers, the administration of the RAE system has involved the administration of a document delivery process for assessors. The competent management of intellectual property rights is part of any document delivery process, and thus is at the heart of the RAE. In this way, LIS concepts and the RAE have been mutually intertwined from the inception of this system.

Prior to the 2008 RAE, the RAE document delivery process had always been traditional and paper-based – institutions that were assessed had to supply paper copies of research papers to experts who could not get access to them in any other way. RAE 2008 was different: it was to be based on electronic document delivery (librarians became worried: that would involve us).

The document delivery processes supporting the pre-2008 “traditional” RAEs had been based on national licences, authorising the copying and supply of print copies for

assessors. These licences were negotiated with rights holders' representative bodies and gave a legal basis to the assessment process.

Negotiation of a licence for a national digital system of copying is much more complex than negotiating a traditional, print-based copying licence. However, the decision to move the 2008 RAE onto a digital footing was taken before the licence was in place. To announce something before its legal framework is in place is an optimistic approach. It runs the risk of such optimism being misplaced.

Negotiations over a licence to underpin the 2008 RAE took place initially between HEFCE and the Publishers Licensing Society (PLS). But in the end, the licence for the last RAE was concluded with the PLS's Copyright Licensing Agency, as an extension to the CLA HE 2005-2008 Trial Licence. There are explanations of the RAE aspect of the CLA HE licence in the relevant CLA guidelines[2] and on HEFCE's RAE web site[3].

In the end the mechanics of RAE document delivery have been considerably eased by a decision to prefer the use of DOIs (URLs) rather than the actual files of papers themselves in presenting documents for assessment. However, the creation of this CLA/RAE licence left a number of questions hanging in the air:

- (1) Not all UK HE Institutions have bought into the CLA HE Trial licence. Some of these institutions have made returns to the 2008 RAE. What is the legal basis for these returns if the HEI is not covered by the CLA HE licence? Are these HEIs operating outside any legal licence framework?
- (2) The coverage of the CLA HE licence is limited to UK publishers. In particular, many US publishers are not party to its arrangements. Does this mean that a UK academic at an HEI that has purchased the CLA HE licence, who wishes to return the file of a paper to the 2008 RAE that is published by a US publisher who has opted out of the CLA licence cannot then legally do so? Are such files in fact infringing copies?
- (3) The actual text of the CLA-RAE licence provisions are not available on any web site in the UK. Requests to see the text have been answered by the comment that the details of the licence are "confidential". A licence is a form of contract. Is it legal for institutions to be bound by a contract, the actual wording of which they are legally excluded from seeing?

In actual fact, the probability is that none of these legal loose ends which are worrisome to librarians are of major concern to HEFCE or even to the PLS or CLA. It is quite likely that these details were never foreseen at the point where HEFCE decided "to do the RAE digitally". And when they did encounter them, thank goodness, they did the correct thing and turned a blind eye to them – as did the representatives of the rights-holders. Frankly, does anyone care very much? No.

But a clear precedent had been established. Matters that librarians understand rather well are not clearly in focus for those steering the national educational system. But LIS issues could be again a problem in the creation of a new "metrics"-based system for research evaluation. And this time the LIS issues may be more important.

Bibliometrics, citation analysis and LIS practice (1)

Bibliometrics – in particular the extent to which published research is cited by other published research – can certainly be used as a means of assessing research quality.

However, practitioner librarians are well aware of the limitations of bibliometrics. If they were asked, they would probably have a lot of valuable advice to give government

departments interested in the use of bibliometric devices such as citation analysis to assess research quality and reward the best research with the most funding.

Many librarians are highly experienced in the use of the prime source of citation analysis data, Thomson-ISI's Web of Knowledge[4]. Many of us are familiar with this resource both in its present online form and also in its various previous incarnations as the printed science citation index, social science citation index, arts and humanities citation index, the index to scientific and technical proceedings and the publication journal citation reports. The prime value of citation analysis data to the LIS profession was always in subject retrieval, based on simple but elegant principles: if an article cites an earlier article it is quite possible that the later article has a subject relationship with that earlier article.

Many subject searchers would thus adopt a belt and braces approach to searching: if an academic with a literature search enquiry had a list of some older, definitive articles that were influential in establishing a research field, then it was always worth seeing which more recent research publications cited these older papers. The prime avenue of approach would nevertheless be to make use of key words added by human indexers that defined the subject interest of the academic, using a well structured set of such key words to search a variety of information resources.

The result of the subject keyword search and the citation analysis would often coincide to some extent, but there were always significant divergences. There were always important articles written in a field that did not cite the original research as well as ones that did. However, a combination of both sets of references generally sent the enquirer away happy, with the biggest set of references possible acquired by a variety of means.

So a practitioner librarian's understanding of citation analysis is fairly cautious: it simply links a cited article to a citing article in a mechanical way. That link may indicate a subject relationship. Or it may not. The best thing to do is to let a human being (your enquirer) look at the result and make their own mind up about the subject relationship. And most of us have memories of occasional searches where there was no useful subject relationship for an enquirer between cited article and citing articles.

Journal citation reports have been a different offshoot of citation analysis: they attempt to give librarians some indication of the most influential journals in a field. The idea is that journals with a high impact factor (e.g. journals whose articles were much cited by the literature) are journals that you should have in your library. Journal citation reports were initially intended as a serials acquisitions aid. No serials librarian ever used them as the only guide to which journals they should have in stock, but they are an interesting source of information to combine with what really mattered. What really mattered was the direct person to person feedback from readers about which journals they really wanted in their library.

So the LIS profession's experience of bibliometrics – that is, of citation analysis – is that it is a machine-driven system of some value. But that it should always be used in a subordinate role, as an adjunct to information retrieval processes driven by human agency. This is also how we would intuitively expect bibliometrics to be used in other applications, such as research assessment.

Government beliefs about bibliometrics and citation analysis

Against this background it was quite a surprise at librarian practitioner level to see, at least initially, that, in the government's vision of the new "metrics", research income measures and then citation analysis were to be the main measures of research quality.

These were measures created with minimal qualification from human agency. The gut instinct of LIS practitioners – who for decades have used citation analysis as a practical tool of their daily trade – would be that citation analysis cannot be used in this way. However, on 22 March 2006 the government clearly stated the following plans:

... we are proposing today a change of policy. We are setting out plans for a radically simplified allocation of the research funding that goes directly to universities (Chancellor Brown, 22 March 2006, Hansard[5]).

The government's firm presumption is that after the 2008 RAE the system for assessing research quality and allocating "quality-related" funding from the Department for Education and Skills will be mainly metrics based (Treasury Statement, 22 March 2006. Quoted in MacLeod (2006)).

Fortunately, common sense prevailed in the period following this initial announcement. By the end of the year the Secretary of State for the Department of Education and Skills was saying that the government's new "firm presumption" was that for the majority of subject areas, metrics would not be the key component of quality assessment:

I recognise that peer assessment, in one form or another, will need to remain the key component of quality assessment for subjects other than science, engineering, technology and medicine in the medium term[6].

However, having sensibly reversed out of one cul-de-sac, the Secretary of State then swiftly accelerated into another: he proclaimed the ability of metrics and citation analysis to create machine-generated data which are the same as the results of subjective human investigation.

I know that [the Chief Executive of HEFCE] is confident that it should be possible to move quickly to a fully bibliometric method of measuring quality in science, engineering and medicine. I welcome his and your enthusiasm for carrying out the necessary work to develop an indicator of this sort ... with a view to testing it against the RAE 2008 results ... [6].

Most librarians would have winced at the implications of this promise. Can one achieve a "fully bibliometric method of measuring quality" that validates against the previous RAE? It sounds vaguely like predicting that you can do a subject search first by keyword searching and then by citation analysis and get the same results – this never happens. Worse, it seems naïve: a politician making a statement and then saying how it can be rigorously tested. It begs the question: what if a standard bibliometric analysis cannot reproduce the results of the last RAE in 2008?

Non-UK approaches to bibliometrics and research evaluation

It seems that, just as the decision to have a digital document delivery system for the RAE was announced before the digital licence for it was in place, the decision to have a metrics indicator was taken before the indicator was in place: "I welcome ... your enthusiasm for carrying out the necessary work to develop an indicator of this sort".

Let us step back and take a larger view.

There are undoubtedly well run national research systems where quality assessment and funding rely on metrics. So no-one should throw up their hands at the thought of a metrics-based research funding system and say "It cannot be done". It can and has been done. Bibliometrics have been used successfully in this way in the Netherlands, forming a popular – though not obligatory – part of their six yearly cycle of research evaluation, supervised by the Quality Assurance Netherlands Universities

body, QANU (VSNU *et al.*, 2003). One of the four measures of quality used by QANU is productivity, and the bibliometrics option is a popular method which helps the Dutch peer assessment panels evaluate this feature (Gerritsma, 2006). Rather than develop our own indicator, perhaps we could just borrow someone else's?

However, it is easier to move from no system at all to a (biblio)metrics-based system, than to move from a highly developed peer assessment system to a "fully bibliometric" system. A metrics-based system that had no previous set of results to compare it with will always be judged less critically than a new system of metrics which is haunted by the perpetual reproach of the old RAE.

Thus in Belgium, the Flanders region moved to a metrics-reliant research assessment system for funding scientific research which used information from the ISI datasets. But this took place as an option of first resort, rather than as a substitute for a previous, well-respected system (Luwel, 2000). Moreover, the approach was gradual, taking some ten years to evolve, with the result that, in the end, metrics were subordinated to human assessment wherever appropriate:

... a consensual approach is emerging through a succession of initiatives. Today in Flanders a general consensus exists that for natural and life sciences and the basic disciplines of technical sciences, bibliometric indicators ... provide a good instrument in research management. It has, however, to be stressed that quality assessment of research performance can only be made by informed peers. Quantitative results can only be used as background information to allow such experts to better formulate their opinion (Luwel, 2000).

This gradual move to a partially metrics-based system contrasts very markedly with the British intention "to move quickly to a fully bibliometric method of measuring quality in science, engineering and medicine"[6].

Another feature of the Flemish approach is the importance placed on consensus. Is this a feature of the UK approach? The fact that the intention to do away with the UK RAE and move to a new system was a surprise announcement would tend to imply that consensus-building has not been high on the agenda. There was little attempt to sample opinion and see how the HE community felt research evaluation should develop. The decision was taken and the decision was announced, without extensive consultation – and, in particular, without seeking guidance from information professionals whose LIS expertise could inform decision-making.

Bibliometrics, citation analysis and LIS practice (2)

Academic information management departments have long had a rarefied interest in bibliometrics which often defies simple understanding and makes little impact on real-life information practice. But, if it is acceptable to speak on behalf of the mythical "typical librarian", then it is likely that the everyday LIS practitioner would probably have some simple and useful insights into real-life applications of bibliometrics and citation analysis.

Certainly there would be agreement with the UK and Belgian government that these systems do not suit social sciences and humanities research all that well. However, even within science, technology and medicine (STM) we would also advise caution in applying these techniques.

At the most basic level, librarians have long noted inconsistency in naming institutions in the Thomson-ISI databases, meaning that searches by institutional attribution in these citation indexes are probably more difficult than in any other information resource. Because there is comparatively very little authority control of

these index points in these datasets, a university such as the University of Strathclyde may be called UNIV STRATH, UNIV STRATHCLYDE or a variety of other versions. Does this not affect the way an institution's research is quantified, attributed and evaluated?

Beyond this, librarians have long acknowledged the idiosyncratic under-use of information by the engineering and technological science community – in depth reports have been written to this effect (Joint *et al.*, 2001). Amongst engineers, research activity seems to happen off the page not on the page. Perhaps this is because of the culture of their community of practice, with an interest in seeing the results of research as a working model or finished product rather than as a research paper. But there is hard evidence from library practice that research excellence in this applied branch of the physical sciences is not a literary phenomenon.

This contrasts very markedly with the use of research literature by some biological sciences, especially the medical sciences. Perhaps the most frequent comment made by medics requesting literature searches from librarians is "... and I'm particularly interested in any reviews you can dig up". So, rather than giving the requester research papers describing one particular experiment, summaries of the literature from experts in the field are of most value. Unsurprisingly therefore, the importance of evidence-based medicine has been one of the most notable developments in medical informatics in the last two decades. As a consequence, chains of citations underpin evidence-based medicine to a much greater extent than in engineering (Gu *et al.*, 2004).

So, the intuitive reaction of a LIS practitioner to a metrics-based approach to research evaluation would be to say that it would work fine for many (but not all) of the life sciences, and it would work especially well for high-level medical research. But it would be difficult to use in the paramedical professions, as well as in applied engineering and technological sciences. And it should not be used outside of STM at all.

Another reason for this note of caution is that librarians are aware of how potentially selective and partial is the choice of journals for inclusion in the Thomson–ISI citation indexes. Journals editors often begrudge the exclusion of their journal from these databases, since it is valuable to have a good impact factor in order to prove the quality of a journal. But since Thomson–ISI is a private company with no documented, obligatory public service remit, they do not need to explain or justify their choices to anyone. Editors grumble and then go about editing their journals. Similarly, LIS practitioners know that the depth of coverage of journals may vary significantly from one subject to another, even within the STM field. We all just accept this.

But, in particular, practitioner research journals are badly represented by Thomson–ISI. The aim of practitioner research is to affect practice, not to acquire chains of citations. The very best practitioner research may be read by many, change professional practice a lot, but be but cited by few other journal papers. Citation analysis undervalues this sort of journal.

So there is plenty of good research that is published in journals that are not covered by Thomson–ISI. And to compound this unfairness, it seems inconsistent to base funding decisions about millions of pounds worth of public money, affecting individuals' careers and entire research departments in public institutions, on systems based around the choices of a private company. Thomson–ISI produce a terrific commercial information service and work to the highest standards, but they are not a public institution constituted by charter. So should these enormous amounts of public money be disbursed on the basis of a commercial information product created to do something other than facilitate research evaluation?

So if we can be presumptuous enough to guess at what the everyday librarian thinks of metrics we would suggest the following: librarians would be reluctant to establish a fully bibliometric method as the main method of measuring quality across the board in the humanities, in social science, and in the majority of science subjects. Over-reliance on bibliometrics undervalues the role of human agency in information management.

Can metrics reproduce the outcomes of the RAE?

Such practitioner instincts about metrics and the RAE remain of course no more than a matter of opinion. But, there is some harder evidence now available: as a result of the UK government's commitment to create a metrics system that can be run against the last RAE, some heavyweight investigations have taken place into how this might be done.

Two recent consultancies have analysed the issue of research evaluation based on metrics. One, from Evidence Ltd for Universities UK funded by HEFCE (Adams and Evidence Ltd., 2007), is a complex but impressive summary of the complexities of the issue, which does not shy away from difficulties. For example, the problem of coverage in Thomson–ISI is confronted and quantified: it says that as much as a quarter of cited material in science is “outside Thomson” with much more omitted in the field of engineering (of course librarians knew this and would have said as much without receiving a fee from public funds).

Librarians, however, could not have proved a different finding: although metrics may show a broad correlation with RAE measures of research quality, at the specific level of the unit, there is no exact fit:

... in a metrics-based system, the information that a unit had an average impact close to world average would not enable one to tell whether that unit was 4 or 5 graded, or whether it might even be a very good 3a or a bibliometrically weak 5* (Adams and Evidence Ltd., 2007, p. 12).

The Evidence Ltd. report concludes that “the application of [bibliometrics] as a determining factor at a more narrow level is not justified”. Since the old RAE methods could work at this narrow level, such a finding implies that using the new metrics to reproduce a set of RAE results is, to say the least, not straightforward.

The companion investigation commissioned by HEFCE is particularly important, partly because of its Dutch origins – The Netherlands is a world leader in the funding of national research by means of bibliometric measures. The Leiden report (CWTS/Centre for Science and Technology Studies, Leiden University, 2007) is very positive but also properly sceptical about the misuse of bibliometrics. While saying that “with a sufficiently advanced bibliometric methodology, it is possible to construct an appropriate, coherent set of indicators for assessing research performance”, the report echoes the concerns of librarians about mundane but crucial matters such as institutional name authority control (in Thomson–ISI “the names of many organisations may appear in large numbers of variations . . .” CWTS/Centre for Science and Technology Studies, Leiden University, 2007, p. 46). If such lowly matters are not addressed, metrics may not work properly. Again, this is a finding which the library profession could have offered without an expensive consultancy fee (for some idea of HEFCE spending on consultants' fees see the note below[7]).

Both Leiden and Adams/Evidence do deliver a qualified approval for a system of metrics, but the forms of metrics which they recommend are very complex: certainly way beyond the sorts of bibliometric analysis librarians will have used in standard

professional practice. No practitioner librarian would be able to produce such a complex set of bibliometric models, and here the consultants have well earned their remuneration. But the need for such complexity makes it hard to see how a test of such methods against a parallel set of RAE results can succeed without adding resource-intensive qualifications and modifications to the simpler, cheaper metrics system first implied in Chancellor Brown's announcement of March 2006.

A third investigation of research bibliometrics has taken place recently, funded from different sources (Cranfield University, 2007). It specifically examines the compatibility of RAE results with citation analysis, and offers cautionary, even pessimistic conclusions. However, this report has been criticised for employing incorrect methods, quite different from standard measures which would be approved by the bibliometrics community.

In spite of this, Cranfield's work highlights many of the same problems that have been identified by HEFCE's own consultancy reports, and also echoes the intuitive concerns of the practitioner librarian. For example, the Cranfield report names the Engineering Sciences as an area where citation analysis results correlate poorly with the RAE (Cranfield University, 2007, p. 3), which is a finding that, as we noted above, chimes with librarian instincts and with the CWTS/Leiden report's list of subject areas in which non-citation index outputs are so important as to undermine the validity of citation analysis when applied specifically to them (CWTS/Centre for Science and Technology Studies, Leiden University, 2007, p. 79).

The cumulative psychological impact of these three investigations (which is rather unsettling) does not invalidate the role of the new metrics. However, it does give a sense that we are coming to terms with a complex form of research evaluation that is hard to understand and which may well lack transparency. Research evaluation is like a judicial process. If one is to be held to account and tried before judges, one is entitled to understand the legal processes to which one is subject. Bibliometrics seems bamboozling to the academic seeking to understand how they will be judged in the near future. That is not a nice position to be in.

So the fact that Cranfield has run a test of citation analysis that has been pooh-poohed by the high priests of bibliometrics does not necessarily reflect badly on Cranfield. This is an institution of proven reputation with intelligent researchers capable of high level research (in fact, they did well in the last RAE!). If such highly intelligent members of the HE community cannot independently make sense of the murky depths of citation analysis, what chance do any of us have?

Conclusions

In spite of all these reservations, the likely outcome of all these present discussions is that we in the UK will eventually see an effective new research evaluation system that will resemble successful implementations of bibliometrics elsewhere, such as in the Netherlands and Belgium. These implementations make metrics subordinate to human assessment. This is not what was originally announced in March 2006, but it is what is predicted in one of HEFCE's own consultancy reports:

Overall, therefore, the metrics system will draw on the same data from RA2, RA3 and RA4 as at present (but with data reconciled to individuals listed in RA1) and will then go through a final peer scrutiny drawing on something like the RA5/6. One might reflect that, despite all the superficial change, it should have a reassuringly familiar feel! (Adams and Evidence Ltd., 2007, p. 34)

Everybody will be able to declare victory – the government will have introduced a metrics-reliant system, while researchers will feel confident that they are being primarily assessed by their peers, not a strange black box that crunches numbers.

However, there are larger conclusions to be drawn. This use of bibliometrics in government policy formulation seems to resemble other instances where information management has been at the heart of the process of government and public administration. We mentioned digital rights issues in the RAE at the start of this paper, and complained about the exclusion of LIS practitioners from the process of policy formulation on the mechanics of copyright and document delivery in research assessment. This pattern, whereby relevant professional expertise is excluded from the process of public administration, has been noticed by at least one notable commentator and described by them as a core fault undermining our democracy. There is:

... a weakness in our political system. Unlike many other democracies, our politicians are not technocrats. Worryingly, nor are our civil servants. With a complex issue ... government and opposition lack the expertise to act sure-footedly (Portillo, 2008).

It is noticeable that, as we move fully into the digital information age, the complex issues that damage governments are increasingly matters of information management, which can destroy politicians and shake countries as readily as foreign policy or financial management issues. Competence in information management is now key to governing a modern democracy. And in the UK matters of information management are not well handled by politicians. Here are some examples.

Certain empty rituals of the UK House of Commons are founded on Victorian principles of information-handling that vitiate democratic transparency (Joint, 2005). British government legislation on digital rights and digitisation is often poorly drafted and dysfunctional by international standards (Joint, 2007a, b). Information management errors bedevil military decision-making (Joint, 2008). Government IT projects frequently run over budget and fail to deliver workable information systems[8,9].

Most recently, information security and data encryption – which are the bread and butter issues of data management familiar to information professionals – have emerged as areas which our government and civil service are incapable of managing properly. Indeed one of the most senior civil servants in the UK, the head of the British tax collection system, has recently had to resign because of systemic incompetence in handling sensitive digital information by Her Majesty's Revenue and Customs[10].

And largest of all looms the spectre of a national British biometric ID card system, which has been described as the current government's poll tax in waiting, an information management issue that has the potential to bring down an entire government[11]. Truly we have arrived in the information age when a national administration's main political nightmare is not an invasion, not violent crime, nor an economic crisis: it is a digital information issue connected with secure data handling.

But, as with research evaluation, document delivery and bibliometrics, there is a way out of all these administrative and planning problems for government. Just consult your local librarian. LIS professionals are the technocrats of the information age, willing to be brought into the mechanics of government and to offer an opinion – and our rates are much more reasonable than non-LIS consultants!

Even now, we await the call . . .

Notes

1. Research Assessment Exercise, available at: www.rae.ac.uk/ (accessed 19 February 2008).
2. CLA HE trial licence guidelines, available at: www.cla.co.uk/assets/169/uuk_guild_he_trial_licence_user_guidelines.pdf (accessed 19 February 2008).
3. RAE 2008 licence, available at: www.rae.ac.uk/aboutus/policies/outputs/licence (accessed 19 February 2008).
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Corresponding author

Nicholas Joint can be contacted at: n.c.joint@strath.ac.uk

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