

Circle of State Librarians

**Autumn
Issue 2004**

Edited by Pat Bell

HM Customs and Excise

**Circle of
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Librarians**

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State Librarian

State Librarian is the journal of the Circle of State Librarians. It is published twice a year, in the Spring and the Autumn. The views expressed in *State Librarian* are those of the authors.

Call for papers

This journal aims to cover all subjects relating to information management in government. Please contact the editor if you would like to write an article or review for *State Librarian*.

Guidance for writers

- The deadlines for receiving articles are the end of November for the Spring issue and the end of July for the Autumn issue.
- Articles should be typed and emailed to the editor as an MS Word or HTML attachment.
- Diagrams or pictures can be included but need to have been incorporated into the file before being sent.
- Authors are also asked to provide a brief biography for inclusion in the Contributors page, and contact details.
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Contributors

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Maewyn has recently taken over the post of Assistant Director, Interoperability at the e-Government Unit (Formerly the Office of the e-Envoy) in the UK Cabinet Office. She is responsible for policies relating to the effective exchange of electronic data across the public sector. The main tools for this are the e-GIF (e-Government Interoperability Framework) and the e-GMS (e-Government Metadata Standard).

Maewyn's background is in libraries and information science, and she has worked in the public sector for the last 14 years.

Stella Dextre Clarke, MSc, FCLIP

Stella Dextre Clarke is an independent consultant specialising in the design and implementation of knowledge structures, including thesauri, classification schemes and taxonomies. Among her clients is the e-Government Unit, for whom she developed and continues to maintain the GCL (Government Category List), a key component of the e-Government Metadata Standard.

Stella runs regular training courses on taxonomy and thesaurus construction. She is active on the BSI committee responsible for standards on indexes, filing and thesauri, and the Convenor of a Working Group that is currently revising the British Standards for thesauri. She is a Fellow of the Chartered Institute of Library and Information Professionals.

Jan Parry

Jan Parry is an experienced and qualified information professional who has worked in a number of government departments in library and information work. She is currently Head of the electronic Working Programme and BARD team which aims to improve communication between Home Office staff and Ministers Offices by streamlining working processes and sharing information using BARD. She is Vice Chair of the Circle of State Librarians.

Gillian Harrison

Gillian Harrison is manager of the Intranet at the Department of Health, currently working on the design and delivery of a new DH portal. Previously, she was senior librarian in the Home Office's Briefing and Reference Database (BARD) team. Gillian is membership secretary for the Circle of State Librarians.

Corinne Jacques

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Carol Gray

Carol Gray is Head of Knowledge Working at HM Customs & Excise where her brief is to deliver and/or facilitate improvements to the way knowledge is accessed and shared in the organisation. She is also currently working with her counterparts in the Inland Revenue to develop an integrated set of knowledge services for the new organisation which will result from the mergers of the two departments.

John Scott-Cree

John is a Fellow of CILIP and his current work in the Prime Minister's Strategy Unit includes managing the Policy Hub and Government Social Research websites



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Editorial

Since the Spring, I have been turning on the Today programme half expecting to hear a politician telling John Humphrys "There are 500 librarians in the civil service. How many people do we need to stamp books and say 'hush'?"

Spring saw the publication of three reviews significant to the future of the civil service. As the Budget promised more money for "front line public services" through administrative savings, the Lyons report (1) proposed relocating 20,000 civil service jobs away from London and the South East. Gus O'Donnell's review of the revenue departments (2) will lead to the merging of Inland Revenue with Customs and Excise.

The Comprehensive Spending Review, including publication of Sir Peter Gershon's independent review of public sector efficiency (3), brought more of the same. With the government planning a total of 100,000 job losses across central, devolved and local government, the major political parties seem engaged in a bidding war to cut the most civil service jobs. The title of the Gershon review- *Releasing resources to the front line*- captures the mood of the time.

This mood represents a challenge for information professionals. Many of us hold jobs that are emphatically not in the front line. Nor do we wield eye-catching pieces of hardware about which we can make bold claims. The challenge is not unique to the civil service. The bookseller Tim Coates' report on public libraries, *Who's in charge?* (4), appears to share similar preconceptions about the role of the librarian with my imaginary politician.

The theme of this year's Circle of State Librarians conference- "Sharing information across government" - represented a response to the challenge. The papers presented there, and adapted by the authors for publication in this issue, demonstrate the changing role of the information professional: making sure that front line workers- even ones working hundreds of miles away- have the information they need, when they need it, and that those shiny new bits of kit live up to the claims of their suppliers.

First of all, Maewyn Cumming sets out a vision of librarians playing an enabling role, allowing staff and citizens to find the information they need quickly and easily. Stella Dextre Clarke's discussion of information architecture outlines how this can be achieved, and the building blocks that have already been put in place. The exchange between Stella and Maewyn after Stella's paper is critical. If we are to realise this vision, it is not going to be by wielding a stick, but by persuasion.

The next two papers counter the stereotypical view that persuasion may not be the information professional's strong suit. Jan Parry explains the varied and imaginative strategies that were needed, along with a willingness to engage with the real problems of real people, to deliver a system that meets real information needs. Carol Gray describes the patient work that finally put knowledge management on the map at Customs and Excise. Both articles are honest about the obstacles we face, but positive that we shall overcome them.

John Scott-Cree provides a bonus- the one paper here not delivered to the study conference- updating his 2002 health check on the user and search engine friendliness of government web sites. He reports some progress, but more is needed- a measure perhaps of the work we still have to do as a profession to ensure that government information systems meet the needs of our customers.

Acknowledgements

This is the first issue of *State Librarian* that I have edited, so pride of place in the acknowledgements must go to my predecessor, Mags Griffin, both for her work on the journal over the years, and for the advice, encouragement and help she has provided since I took over the role.

Much of this issue is based around the CSL study conference, so thanks to Juliet Male, for organising the conference, and for making recordings of the proceedings available to me. The CSL's thanks are extended to Stephen

Latham, who delivered a comprehensive survey of knowledge management issues at very short notice after the advertised speaker had to withdraw.

My thanks, last but not least, to Janice Gardiner and Imogen Campbell at the Office of the Deputy Prime Minister for transcribing the recordings of the proceedings, and to Fiona Grieg, also of the ODPM, who arranged this work.

Feedback

I am anxious to encourage feedback and debate about the articles featured in *State Librarian*. If you have any comments you would like to make on any of the articles in this issue, please send them to me. Where appropriate I will consider these for publication in the next issue.

However, if you can't wait for the next *State Librarian* for your views to be read, post them on the new Circle forum at <http://web.circleofstatelibrarians.co.uk/forum>

References

- (1) Well placed to deliver? Shaping the pattern of government service by Independent Review of Public Sector Relocation (Chair: Sir Michael Lyons).
- (2) Financing Britain's future: review of the revenue departments by Gus O'Donnell (Cm 6163), London: TSO, 2004.
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A vision of the future

By Maewyn Cumming

e-Government Unit

Everybody gets the future wrong

It was only a few weeks ago when I started to prepare this presentation that I realised just what a poisoned chalice the organisers had handed me. Asking someone to predict the future is effectively asking them to stand up and get it all wrong in front of their colleagues, because, as Mystic Meg will tell you, it's not an exact science; I am bound to get something wrong at some point. However, I will be in good company.

"640K ought to be enough for anybody."

Bill Gates, 1981

Bill Gates' mistake gets quoted in all the websites listing really bad predictions. In company with him, usually, is Lord Kelvin. He was one of the great thinkers of his age, to the extent of being President of the Royal Society and inventor of the Kelvin absolute temperature scale. Despite being right about so many things, once he started getting things wrong, he just couldn't stop.

"Radio has no future."

"X-rays are clearly a hoax."

"The aeroplane is scientifically impossible."

Royal Society president William Thomson, Lord Kelvin, 1897-9

Einstein said that we'd never be able to split the atom about three days before somebody did, so not only did he get it wrong but he got his

timing really badly wrong. Technology is unpredictable; you never quite know what's going to be round the corner, but its not only in this area that people make the occasional error, as Margaret Thatcher so famously demonstrated.

"It will be years - not in my time - before a woman will become Prime Minister."

Margaret Thatcher, 1974

If I'm wrong in my predictions, however, its because of perfectly understandable miscalculations or lack of research (though as a librarian I don't have much of an excuse for that!) not because of blind prejudice and stupidity, as this academic demonstrates quite admirably.

"Brain work will cause women to go bald."

Professor Dr. Friedenthal, Berlin, 1914

I am going to consider the future in three areas:

- Libraries and librarianship
- Government services to itself: how government looks after itself and does its business. That's mainly what we do, providing information to government organisations.
- Government services outside to the public, to business and across the world.

Libraries: images of the future

Researching this presentation, I found an erudite paper by Sara B Sluss (1) with predictions of what the future of libraries would be. Her four different visions of the ways that the profession could go are coloured by the fact she's working in an academic library, but I think they are relevant to anybody in the information profession.

Continuation

The first vision is of continuation. It is possible that libraries and library services could go on essentially as they are now; we will keep on doing what we are doing now, in the same way. That strikes me as extremely unlikely. It completely denies the impact of technology, which has been changing the way we do our jobs quite steadily over the last 80 years or so, and particularly in the last ten. History has shown that we adapt; we

tend to pick up on new technology and new ideas, we change the focus of our work depending on what's needed. The world is also changing around us in other ways, people have different expectations and experiences, and make different demands. I can't see us continuing on doing exactly what we've been doing.

Collapse

A dire image, that libraries will just disappear. We are all going to be replaced by Google and the occasional really badly put together Intranet. This future is also pretty unlikely but it's something that we need to think about. Its put forward by a lot of different people; particularly those accountants who are after our budgets.

Disciplined

The third picture sounds suspiciously like one of those odder images of librarians, with a whip. (It turns out not to be quite that interesting.) In fact it concentrates on the traditional values, services and organizations of librarianship. This is similar in some ways to that first image. It will have librarians as archivists. Libraries will be there, full of musty books, preserving the culture and we will be cataloguing on cards, possibly using more modern techniques. It's how some members of our profession want to go, which could be a danger to those who want their jobs, and their salaries, to move with the times.

Transformation

Sara Sloss's last image is one of transformation. This is really difficult to picture because we have got no idea of what it might be. If we are looking at information services evolving into something completely new, it is hard to picture the possibilities. There is no past that you can look at to guide the future. There are going to be things that happen that will be completely unexpected, but we don't know what they are; they're like one of Donald Rumsfeld's unknown unknowns. We know something is going to be different; we just don't know what it is.

Dependencies

So what can we do to ensure we don't get left behind, or stuck in a job we no longer enjoy? Lets start by looking at what is going to affect all of this.

First of all, there are a few things that we don't really have a lot of control over. There are going to be changes in government and how it is run. Government is taking a more centralised approach at the moment. It will no doubt change in a few years and become decentralised again, and then a few years after that it will swap back again; these things tend to be cyclical.

There are certainly going to be changes in technology. We have limited impact on that, though librarians have driven some changes of technologies in the past because we've demanded systems to cope with the fairly complicated stuff that we do.

There will be changes in the profession itself. I like to think that we can have a lot of say in those! We need to be aware of what these changes are and the direction they're going to take, and take some control over them. Our biggest influence on the future, the part we can control, is how we respond to changes, as individuals and as professionals. If changes in government or the profession happen, we need to figure out where we are going to go, how it's going to effect our own careers, how its going to effect organisations like the Circle and the Committee of Departmental Librarians. We have some control over that.

Joining up government

At the moment, if citizens and businesses need to interact with officialdom they often have to go to lots and lots of different places. If you are setting up a business you may have to go to four or five different parts of government to do different things. You go here for your VAT and there for your taxes and somewhere else to get something else done. Once your business is established you often have to keep on going back to them. You tell all of them the same thing; " this is my name, this is my address, this is my VAT number, this is what I do", and you vary slightly from department to department but you have to keep on doing it. It is very repetitive and its quite a burden especially on a small business.

If you are a person, you often have to do something similar. A friend whose mother died recently had to go to 32 different parts of government to go through all of the paperwork. It was quite complex, mainly going through the different parts of his local authority, doing everything from cancelling her council tax to returning her library cards. All this involved an awful lot of going around and about at a time when he actually had other things on his mind.

That is how government has worked up until now. What we want to do is join up, to put in an 'integration layer'. Whether or not this is an entirely separate layer or whether it is the result of some of the processes down the bottom changing, will vary according to the circumstances, but the idea is that people should only have to go to one place to do all the business they need to do with government. They only have to tell us their name and address once, not 37 different times. If everything is working perfectly, then when it is time for them to do something they will either come and tell us, or government will contact them to remind them some action is needed. It will be more than putting ads on telly to say that your tax return is due; it will cover all the other things that you ought to be doing, such as renewing your passport or registering to vote. It is a huge change and the difficulties shouldn't be underestimated. It requires not only the latest technology (which at first people naturally thought was going to do this for them), it requires a lot of changes in working patterns and in ways of thinking. It means everyone working in the public sector needs to start sharing information better, making their processes work better, and breaking down barriers between organisations.

So where do we come in? At the moment, the information that is available to people is spread around, in bits and pieces, and people have to know about them to use them. Most of our users know about the internet. Most of them have an in-house intranet, though they may have trouble finding anything on it! They know there are some official records somewhere but many of us don't actually know how they work either, and they are often in hard copy only, in a storage area in the basement of another building. They will have a bunch of shared files stored, if they are lucky, in a document management system. There are also their own personal files, plus the knowledge network, perhaps the departmental library, and the electronic Library for Government (which few people know about, but all librarians should). There are lots of different sources, and for most civil servants to do their job properly they have to know about them, have a rough idea which is the best one to go to and how to find it. That but that is what people, our customers, are facing at the moment.

A few weeks ago, a friend of mine who works in a legal library sent me a reference to a new book thinking it looked like the sort of thing I might be interested in. (I should point out at this point that I don't actually work in a library, but in a policy section of a government department.) I agreed,

and thought it was also something that a lot of people in my organisation ought to be interested in, so I sent out an organisation-wide e-mail saying so. Quite a few people came back to me about it, and what they said to start with was "it sounds quite good, but where do I get one?" I suggested they contact the library, and the main response I got from that was "Have we got a library?" I am not saying this to have a go at Treasury and Cabinet Office library, because I can guarantee that this is also happening in every single organisation across government, probably on a fairly regularly basis. I have colleagues spending hours or days doing things a librarian could do in twenty minutes, but few people actually realise what librarians do, so they don't ask. We did manage to get a review copy of this book by the way so one way or another we have ended up with one, but this is not how things ought to be.

The future

So what is going to happen in the future? This is the dangerous bit.

I think we are going to become much more customer focused. We think we are now and we say we are now, but that previous incident shows that we are perhaps not as customer focused as we ought to be. But in future, customers, our readers, our users will know what we do. They will know that it is not all about books, that their departmental library is not like a public library, which is what people tend to have in their minds. We haven't got a bunch of stern women with their hair in a bun lending out Mills & Boons. (Neither has my public library actually but you have to bring in the stereotype somewhere don't you?)

In future people will do their information searching for themselves. I feel confident saying that; mainly because they are pretty much doing it now. People who have the internet on their desk dive into Google to find something, and they are usually quite happy with the results. They will get it wrong. They won't get it wrong every single time so they will think they are getting it right. But they will get it wrong often enough for it to be a problem for them occasionally. Or, they will do it badly. They won't find what they really need. They will find something that is half of what they need, or they will get distracted and go and look at other sites instead and forget what they were meant to be doing. But they will keep doing it themselves. What they won't know is what we have done to enable them to find stuff. When they do go on-line, go into their office information system and find something, that will be because of work we have done

behind the scenes. They will think they have done it quickly because they are really clever; in fact it will be because of our expertise.

We are going to do more cataloguing! We are probably going to start calling it metadata even more than we do now. We are also going to do a lot more consultancy; when someone else is setting up an information system, they are either going to get us to do it for them or they are going to get us to show them how to do the information management bit. They are going to get the IT to do the technology work only, and ask us to do the information management

We will appear in more places than we do now. At the moment, librarians are cropping up everywhere, in weird and wonderful little corners, running or helping organise websites and intranets, even document and records management systems. We will be in places that don't initially always appear to be information management places. I know librarians who are working in enterprise architecture systems.

We are going to transform information systems so that people aren't facing a huge mess of different sources that they can't quite understand. The one stop shop which we have talked about for so long might actually come to happen, but it won't be a place, it won't be a shop, it will be on somebody's screen. With a bit of luck it will be on everybody's screen.

Portals will give access to the information within the organisation that your people need to know about. People won't have to go to 30 different places to find the records, the documents, stuff that is on-line, stuff that is local to the department: it will merge together in the middle. This isn't easy to do because all of that information ultimately has a different purpose and a different home to go to. It will take professional organisation, management and structuring to make sure it all works together properly and that some simple person can sit at the front end and actually find what they need without having to give it a great deal of thought. We will be doing the great deal of thought bit.

The transformed profession

This brings us to the transformed profession, the bit that is so hard to see. We will continue to be information organisers and managers, in a lot of different places. We are not going to do so much finding stuff. The front end, answering enquiries, will fade, not because we aren't good at it but because people will do it themselves. Information will merge, or appear

to merge, so it won't be split by format; you won't have the books here and the journals there and the electronic stuff there. It won't be split by geography, we will be able to access nearly everything from our desktops. Users will keep doing it all for themselves, and they won't realise just how much we have done behind the scenes to make it all easy for them, to enable them to find stuff easily. People are going to realise that it is just so much easier for them, and more efficient, if we are allowed to organise their information resources behind the scenes.

Finally, on an optimistic note, I think we will get paid more. However, there are some things you just cannot fight: I think we are stuck with our image. Melvin Dewey, another person who occasionally got it wrong, said that librarians were going to lose their musty image. He said it well over a 100 years ago, and it still hasn't happened, so I think maybe we should just give up on that one.

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- (1) Looking into the future in American academic libraries by Sara B Sluss. presented at "The State of American Librarianship" American Library Association Annual Conference 2001, International Relations Roundtable IRRT Continuing Education Committee Pre-Conference. Available at http://www.csulb.edu/~sbsluss/Looking_into_the_Future_ALA.html



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Building an information architecture across government

By Stella G Dextre Clarke

Stella Dextre Clarke has been a consultant for the Office of the e-Envoy (Now the e-Government Unit) for three years.

The vision

Let us start by visualising what an information architecture might be trying to achieve. One possible image is the fount of all knowledge. All the information collected and/or issued by public sector bodies should be available to the citizen as a glorious fountain at which he or she may drink. Nice image, but a bit impractical. The logistics of everyone being able to get at the fountain simultaneously are a nightmare. And how does the citizen choose a relevant mouthful, rather than what is gushing out generally?

Let's try another picture. This time all items of information are in a pool, and you can fish for them. Every fish has a label round its neck, as though it was ready for the fishmonger. The label says what it is, what it is about, when it entered the pool, what is its use-by date, etc. On the end of the citizen's fishing line is no ordinary hook. Instead there is a motorised barcode reader, able not just to read the labels but whizz round the pond and find the right fish.

The labels are a big improvement on the indiscriminate outpourings of the fountain, but still not very structural. So far the fish are swimming round quite randomly, not required to interact with each other. Let's instead try using real architecture as our metaphor. Take the Getty Center in California, an example of showpiece architecture for architects.

Real architecture – the Getty Center

If you ever have a spare day in Los Angeles, this is the place to go. The Center is a resplendent complex of buildings situated on a hilltop. The museum and art galleries house the priceless collections assembled by John Paul Getty. Just across the plaza is an auditorium for lectures, and on the other side is the Research Institute with its library and scholarly work, home of the renowned Art & Architecture Thesaurus, by the way. Not far away you can buy an ice cream or eat in the elegant restaurant, with an outstanding view across the valley below. And you can wander into the extraordinary garden, where even the stones by the running stream have been selected to deliver “music” of steadily increasing pitch as you proceed.

A key success factor for the complex is the integration of all the required functions in one design. People need to eat and relax as well as studying the art objects, and the site allows them to move from one activity to the other. Similarly, in an information architecture, the data output from one subsystem need to feed into another application without laborious intervention. To achieve this, standards are the key - just as fundamental in information applications as they are in the construction industry.

If you are the architect designing a structure or a set of structures such as this, you can dictate every detail, as I’m told Richard Meier, the Getty architect, actually did. He could not be separated from the site, was constantly supervising everything they did: an obsession with lines, measuring, checking, and correcting every tiniest detail. It is feasible with a physical thing, even one on this scale. But not so easy if the structure comprises all the information output across the UK public sector. You can hardly imagine a Prime Minister – even one with a reputation as a control freak - walking into every office and saying “Oh, but you must include this on your web site, and give it a blue background, and put the graphic in the top left corner. And don’t forget the sound effects... etc.” Although someone has to decide and execute this type of detail for every site and every system we manage, and although the products benefit enormously if common design elements are applied, the amount that you can achieve by centralised control is quite limited.

For the virtual architecture of public sector information, integration will be achieved more by motivation than by imposing penalties. Yes, the standards and guidelines have to be established. But then, to get those structures built, people must be empowered to do their best, and must

believe the result will serve the public and the nation, as well as their own organisation.

Virtual architecture for public sector information and services

This is more or less the line that is being taken in the UK public sector. Already we have got a set of standards known as the e-GIF, the e-Government Interoperability Framework. Within the Framework is a list of standard formats and protocols, such as XML, PDF, HTTP, etc., which I think of as the technical side of making information more shareable. Another core element is the e-GMS (e-Government Metadata Standard), which has been based on the Dublin Core but greatly amplified to cover all the metadata elements and refinements needed across government.

The effort is led by the Office of the e-Envoy [now known as the e-Government Unit], within the Cabinet Office. The e-GMS work is overseen by a Metadata Working Group, on which are represented all the major government departments, plus local authorities, executive agencies, NDPBs, and even some private sector representatives. It is quite a large committee, and the members really get stuck into the nitty-gritty.

Librarians love Metadata ... and so do records managers

Now sometimes I mention a word like Metadata in trepidation. Will people know what I am talking about? But here, surely, it strikes a chord. Maybe you do not like the word, but call it cataloguing and classification, the core of librarianship. Librarians are not the only ones. Records managers are a similar sort of breed, because for years they have been organising things and labelling them, and making them available to other people.

The result of this happy love affair for the e-GMS is that the Metadata Working Group has been infiltrated by librarians. An impressive number of librarians are represented, and their point of view really has come over, and has influenced in a big way the direction of the Standard. Records managers too are strong on the committee. The basic instinct of metadata supporters is that if we can label items consistently, then we can not just find them, we can manage them more effectively. We can weed them out, we can detect when their time is up, and eliminate them, we can route them to the right people, and so on.

Part of the e-GMS is a controlled vocabulary. Now this really is librarian stuff, and very few other people's. Not only have we got a controlled

vocabulary in there, it is mandatory. This really takes my breath away. To meet official guidelines, people all over the public sector have to comply with the e-GIF and the e-GMS, and they have got to use a controlled vocabulary called the GCL, which they have never heard of before. Every information item they issue should have a GCL term in its Subject metadata.

“GCL” stands for Government Category List. It has a hierarchical shape. It is some sort of hybrid between a classification scheme and a thesaurus, and we call it a taxonomy. It is not really a thesaurus. If it was aimed for searching, it would be a proper thesaurus, but it has been designed more to assist browsing than searching. It has:

- 400 categories- that is the preferred terms, the things you are supposed to use
- Over 1,300 lead in terms- synonyms- to help people find the category they are looking for
- It is polyhierarchical
- It is citizen oriented, we hope. We may not have done this quite as well as we would like, but we tried to build it in a way that people will understand, and where people will be able to find things even if they do not know which department produced them
- It is relatively small and simple. Not everyone finds it that simple, but it is about the smallest, simplest controlled vocabulary you could possibly build, and still be worthwhile.

By the way – Webmasters don’t love Metadata (?)

Some librarians are webmasters, so this can’t always be true, but my general feeling is that as soon as you move away from the sort of people who are on the Metadata Working Group, and the sort of people we have here today, and you try to interest them in using metadata, they are not convinced. A metadata believer recently told me his colleagues think he is a loony because he fills in the properties box on all his Microsoft Word documents. It can be a bit of an uphill battle selling to other people the idea of using metadata to organise information.

Everything in the garden is rosy ...

Apart from that one aside, we have got a situation where things are looking

pretty good. We have got these standards in place. They have been with us for about two years. We have got a controlled vocabulary in there. We have got all that could reasonably be dictated from the centre to guide people to build their information structures.

So we have done it, or have we? Look round, and where are the built buildings that have applied those standards? Where do we see them? We should see them in all the websites of all the public sector organisations. We should see them also on their intranets, and the websites on those intranets, and all the documents and other resources that can be accessed through those intranets. We should see them in their records management systems, and their knowledge management systems, and a welter of other systems that they may have. But you take a look at them. I am not a government employee, so I don't have access to all of these things, but I can access government websites, and it is astonishing how hard it is to find one that complies with the e-GMS, or anything like it. So far I have found just one site that really could claim to comply with the e-GMS.

... but where is the product?

Why is it that we cannot see the thing built when we have had the standards for two years?

Answer No. 1- it is difficult

Let us see if that is true. Study a copy of the e-GIF, and you find pages about XML, SOAP and UDDI, and a great many more acronyms, and I for one go weak at the knees. The prospect of having to understand and apply all those standards seems quite daunting. Move on to the e-GMS, and in principle it is simpler, but there is a lot of it. The extent alone makes it seem complicated. There are 21 different metadata elements. Certain applications such as records management require masses of detail that can be ignored for other applications. But quite a lot of digestion is needed just to work out which bits you can ignore.

Of course when you get to the GCL bit of it, applying to the subject element, that is easy-peasy, or so I think. But the astonishing thing is that when you move away from information professionals, people actually find the GCL the hardest bit. I have been in meetings where they say " Oh yes, we are doing everything about the e-GMS, but the subject element, that is the real challenge." People do not find this thing easy.

Answer No. 2 - It is misunderstood.

However small and simple I say it is, people do not grasp the whole idea of the controlled vocabulary. It means that everyone ought to use the same term for the same concept, and if we just all used the same term, whether it is right or wrong, it would find the stuff. Whether we like it, whether it is the most correct term, does not matter, it would find the stuff. But when you look at some websites that claim to comply with the e-GMS you find that the metadata uses synonyms instead of the preferred category names.

The GCL is just one of the things that is misunderstood. Maewyn Cumming and her team at the Office of the e-Envoy face a huge challenge, because they have produced all these standards and are now trying to get the public sector to use them. Out there are all those organisations, and each one of them just needs a tiny bit of hand-holding, not a lot, just a tiny bit of hand-holding to clear up the misunderstandings, but the resources are not there to do it.

Answer No. 3 - not enough incentives.

I have been in meetings where people have protested, "Who says this is mandatory? What are they going to do to me if I do not comply? Show me the Statutory Instrument where it says I have got to do this, and anyway what is in it for me? A whole pile of hard work, and what do I get out of it?" By the way there is no Statutory Instrument. The incentives have really got to be through the benefits that can be obtained, and I think what will sell this if anything sells it is the benefits that organisations get internally from applying the standards.

Answer No. 4 - it is expensive

There is no doubt about this one. You might need some more kit to implement it, and you probably need some software for those records management systems, knowledge management systems, for a content management system, perhaps for your intranet and internet sites. The software can be jolly expensive, and that is only the tip of the iceberg, because the real cost is the people- persuading people, explaining to people how to use it, persuading them to change their ways of working so that they do it. That is the big unseen expense that is involved in implementation. And so often it turns out this expensive software that you have bought does not support the functions you need! Very few software products will

support use of a taxonomy or a thesaurus. You try to import the GCL into it, and it fails. You try to make the GCL available for metatagging or searching, and you cannot browse it in a user-friendly way. The most they can offer you is usually a drop-down list. Now if that drop-down list is of 400 categories, it's not friendly.

Answer No. 5 – more time is needed.

This is my favourite reason for why we cannot see the architecture yet. We have not had long enough. Two years might sound like a long time, but it is terribly short, especially when organisations and people like yourselves are busily also implementing the Freedom of Information Act, and all that you have got to do to comply with that, the Data Protection Act, all the copyright legislation, etc. The world is not standing still. You have got to implement this alongside everything else. A lot of government departments have made huge progress on setting up their own corporate metadata standard compatible with the e-GMS. They have gone some way towards implementation, but have not quite got there yet. We have got until 2005 have we not? So hopefully in a year's time, when we look round at the public websites, we may find them compliant. I hope we shall.

The benefits are real

And with the metadata in place the benefits are real. You can find things, and not only find things that you could not find before, but you can manage them much more effectively, if they are nicely labelled. You can have an efficient workflow. Of course metadata is only one part of the pathway to efficiency. You also need the compliant software, and you have to persuade people to change their ways. But if you can organise things so that documents just get handled once, and updated in just one master version, which can be read by users via whichever access route they use, and there are not a multiplicity of divergent versions floating about, that makes office life much more efficient.

Another benefit is mission delivery. Throughout the public sector, part of the mission is to provide information and services to the public. That is what we are all about is it not? So if the e-GMS is helping us serve the people who are paying us, it has got to be a good thing. However, a leap of faith is needed. Although I say the benefits are real, I would be hard pushed to prove it. To prove that metadata makes a difference is very

difficult to do; likewise to prove that workflow will become more efficient. You can only prove it after you have done it, and at the start, to persuade people to make the necessary changes can be very hard.

What can WE do about it?

What can we do about it? I say "We" because I think this belongs to us more than anyone. The government wants to get its message out to the people. The government wants to be making things available to the citizen, but we in the information profession want it more than anyone. That is what we were brought up to believe. That is what we have been trained to do. Our ambition is actually to serve people, so I think we more than anyone want this to happen. We, as much as anyone else, stand to gain in terms of our career prospects if we can make it work. So what can we do?

The first thing is tool up. I mean that much more generally than just the engineering sort of tools. We do need software tools and hardware tools, but actually the first part of this is getting informed all about it: downloading all those painful tedious documents from the web site, finding out about the standards, finding out about the different software products - the capabilities of the most likely ones that we could use, finding out about our own organisational context so that we can select from the software that which will work with our own situation. Just generally prepare ourselves, train ourselves, get ourselves into a position where we can start to do things. Part of the tooling up may be to develop our own controlled vocabulary, because we all recognise that the GCL is too small and simple for managing our very detailed specialist information. A lot of organisations are building their own complementary taxonomy or thesaurus.

Once we have done that, more than anything, we need to demonstrate things that work. The first thing that you set up, perhaps as a small pilot scheme, can be used to bring people on board, because a lot of the problem when you say we ought to have metadata, is that people just cannot visualise what you are talking about. But if you can just build something small that works, you can gain on two scores. They can visualise, understand what you are talking about, and secondly they can be persuaded that those benefits might just be real after all.

The next thing is to recognise we are never going to do the whole job ourselves. This has got to be teamwork. The first and most obvious people to involve are the end users, because sure as fate, if we don't involve

some users - at least some user representatives - in the planning from the start, then they will oppose it when we present it and tell them to use it. If we can get them involved in building the edifice, then they will understand when it is perhaps not perfect at the day of launch. They may even understand that their own demands caused some of the problems! Or at least they will see why the structure was built this way, and may persuade their colleagues to understand how to use it better. Also we must involve our IT colleagues, because they are going to be needed for the implementation. If you are building a specialist thesaurus, then it is a good idea to involve your subject experts. And finally it is important to have on side the senior manager(s) whose budget will underwrite the project.

Then we should continue to infiltrate the seats of power. I think we are doing pretty well, not just nationally, as I have described on the Metadata Working Group, but I am impressed looking at a lot of government departments, how well librarians are rising in a way I do not think they did 20 years ago, getting higher up the tree, and persuading people that information matters, and does bring benefits to the organisation. We can make it to the top, and we can get that architecture to function!

Questions

I am concerned that we have accepted the need for metadata, and for standards, but there is no bridge between that and practice. I do not see any metadata police vetting sites, or highlighting best practice, or setting deadlines to encourage metadata use. Without that, there is a danger metadata will become another standard that no one complies with.

Maewyn Cumming: I think I am the metadata police! However we are not really resourced for this, which is why no one is coming around telling you to fix up your web site. It does take time for organisations to comply, so we can't see all of the effects of the metadata standards yet.

As some organisations start to comply, others will follow. There is a circular problem with metadata in that people do not have the incentive to add it if the search engines are not exploiting it. At the moment search engines assume that there is no metadata, and they use other ways of finding things; search engines are not going to depend on metadata until the metadata is there, so we go round and round in this ever decreasing circle. We are breaking out of that circle now, but it does take a while.

Stella: It is just not realistic to ask taxpayers to fund a metadata police. Most taxpayers have never heard of metadata. It is not a vote winning thing to put money into metadata. So it would be nice to have the metadata police round about but it is not going to happen.

We have got to work on developing incentives. This is not going to come from the Office of the e-Envoy saying "Here are the incentives. There is a pot of gold for you." It is actually going to come from each one of us who believes in it passing on the message, building those things that work, persuading people that this is worth investing in. I so much enjoyed the first talk we had this morning (See next article: "Sharing information across government: strategies and bureaucracy") because although it wasn't about standards in particular or the e-GMS, it made the point that if you build something which is more efficient and helps people along you have won a good part of the battle. If the champions at the top are persuaded to continue funding it and pushing it, they give you more power to extend the project and persuade the stragglers.

EDRM makes it easier for people to add metadata: is that where we should be putting our efforts rather than websites?

Maewyn: There needs to be a combination. EDRMs certainly are key players in all of this and everybody is putting in EDRM systems. They tend to require you to put in metadata to a certain standard and the better ones largely automate this. What unfortunately tends to happen is when you take something out of that system and send it off to the webmaster or the intranet person, it leaves all the metadata behind, so it all has to be rekeyed. So what we are trying to encourage people to do is to build in a system that allows you to take the metadata with the document.

One of the reasons that we built the e-GMS the way we did is so that when you put the first bit of metadata on it just travels right through with that item - that picture or document or spreadsheet or whatever- and is useful right down the line. You may need to add a little bit more to it once you get it to the intranet or the website, but you don't need to start the whole process again. .

Stella: The key to success is efficient software. The background I come from is the secondary publishing industry. For years I was with CAB International, who produce the CAB Abstracts database - one of those big abstracting/indexing services. Because information was our business it

was worth investing in efficient software. The production line was organised to avoid duplication of effort, and an item entered with all its metadata could then be routed to appear in many different products, reformatted automatically each time for the context. Publishers have been taking full advantage of metadata for decades, so it is a real shock to come out into a world where it is not taken for granted. The same item is often wanted in several different contexts, but they are all handled by different software. The bridging thing that will take the metadata out of the EDRMS and fill it into the Content Management System automatically should be simple to do in principle, but the vendors have not yet cottoned on to it. Another part of the effort undertaken by the Office of the e-Envoy is to educate the vendors. Every time I catch a vendor I pin him down and say your customers need software that will support taxonomies, but the message is slow to get through. However, one or two of them are building products now that expect e-GMS compliant data and support the functions for tagging, browsing and searching.

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Sharing information across government: strategies and bureaucracy

By Jan Parry, Gillian Harrison, Corinne Jacques

e-working programme team, Home Office

The who, what and how of sharing information ...

Librarians have always shared information across different boundaries. Who else shares information in government? Obviously, there are the other specialists, people like scientists, lawyers, accountants as well as policy makers. And there are others, for example, government ministers' drivers know all about sackings, resignations and reshuffles, before anyone else.

Now what do we share? As librarians we share books, journals, journal articles, reports – the list is endless. We share information about people and information about government policy. We gossip, and we do our networking.

So how do we share? We share things by the usual ways like, phone, post, email and websites. We network, both formally and informally. We all have our different methods of getting information, and sharing information. As an example, when I worked in the Health & Safety Executive Library, we had reciprocal arrangements with Liverpool City Library, and we had arrangements with the Atomic Energy Authority. In the Department of Health we had arrangements with the Kings Fund Library, so we did not always have to go through the British Library for information we did not have. We also share information throughout Whitehall departments through the Knowledge Network, which we have talked about many times

at this conference. The Knowledge Network shares briefings on all the key topics covered in central Government. Later on we will show you how the Home Office has shared information and the problems that we have encountered.

... and the obstacles to sharing

What prevents us from sharing?

- Bureaucracy: procedures, paperwork, hierarchy
- IT suppliers: the lack of knowledge on things like library software, on line databases, CDs that libraries use is just phenomenal.
- Management: I spoke to a librarian last week who said that she had used her own informal network in her previous job, which she used to get loans and information but her manager told her off, as he disapproved of it.
- The faceless people: the people who, when you are in the middle of a project, or you have had a good idea, or you are trying to get something done, say " You can't do that. You've got to do this, you've got to do it this way and go through this procedure."

The Home Office

The Home Office deals with policy on the Police, crime reduction, prisons, immigration, and drugs. It's a very busy, huge department. I keep discovering bits of it around the country that I did not know existed. Within the Home Office I work in the Communication Directorate, and within the Communication Directorate we have the Information Services Unit. The Information Services Unit consists of:

- Library & Information Team
- BARD, the briefing and reference database, which is part of the Knowledge Network
- Electronic Working Programme, which you will find out more about below.

About 18 months ago it was decided that the Home Office was going to be the flagship department for change in this government. Unfortunately it is probably one of, if not the most, old fashioned department in government. It needed changing and quickly, so we had to try to drag the Home Office kicking and screaming from the 19th Century, through the 20th, right up to date to the 21st. It is quite a painful experience that we have been part of, and it is still happening.

The Electronic Briefing System

In 1997, the new Labour government had certain expectations -they expected us all to be working electronically. This was very naïve, because we were not joined up in this way; we were just getting used to e-mail and Word at the time! They wanted to join up government and improve the way departments work together.

They started this with an Electronic Briefing System. The Electronic Briefing System matched a system Labour had used in opposition, that they claimed helped them to win the election. It contained policy, parliamentary and statistical information, kept up to date, so they were always singing off the same hymn sheet. The first electronic system was in the Department of Health, and I was very involved in this. Then the Electronic Briefing Systems were put around every Whitehall government department in the year 2000 via the Knowledge Network. Librarians were involved in this from the very beginning.

However, it was imposed from the top, by the Cabinet Office, so it was resented very much, particularly by IT suppliers. It was in Lotus Notes, which nobody understood. They wanted to do everything in Microsoft or their own products. It also suffered from the Not Invented Here attitude – “we’re not going to share things, we want to invent our own”. However, all departments were free to develop it further, and to the best of my knowledge, the departments who have developed further were the Department of Health obviously, DTI, DEFRA, DFES and the Home Office.

The briefing system was installed at the Home Office, and it was forgotten. Everybody was hoping it would go away. So they gave people limited training and just told people how to put information on to it. What they did not cover was how to retrieve information from it, which surely makes it an invalid system if you cannot get information out of it! So the users did not see the benefits of it, why would they? They just thought, “Oh

this is a chore, I am only putting this information on for ministers.” Nobody could see that they could actually use the system themselves.

Now what did they do in the Home Office? Well, I came! I brought in three librarians, because librarians know about keeping information up to date, about checking on the quality of information, and of course, that lovely word, metadata (which makes other people’s eyes glaze over!). I also had to bring in a technical manager who had the expertise to talk to the IT suppliers, because I was fed up of being the only woman, in a room full of men in suits, trying to explain that this was very important to the Home Secretary, and trying to make them understand that this had to be done, and done quickly. The technical manager was very useful in being able to talk IT speak amongst men. The team took over complete control: development, training, and marketing.

We took the briefing system, and we expanded it to include:

- Core briefings to share throughout the Knowledge Network to all government departments.
- Press Office logs. This meant that press officers logged every call that came in: what it was about, and how they dealt with it. Then the duty press officers would have access to this at night time, when everyone had gone home.
- Standard letters for answering ministerial correspondence, and Treat Official correspondence. That again was, and still is, very useful for people.
- Local information - this was a big winner. The Ministerial Briefing Unit helped to develop this. Local information covered things like crime and policing, by constituency and MP, and of course the ministers lapped it up, because they love to be able to say things about local places.
- Event planning as well for the Press Office, to be able to co-ordinate big events with ministers.

We developed it to be useful internally, as well as for sharing with other government departments. We were seen to be delivering quickly, without going through massive projects with the IT suppliers, taking months and years, so more people came to us with their requirements.

Pressures



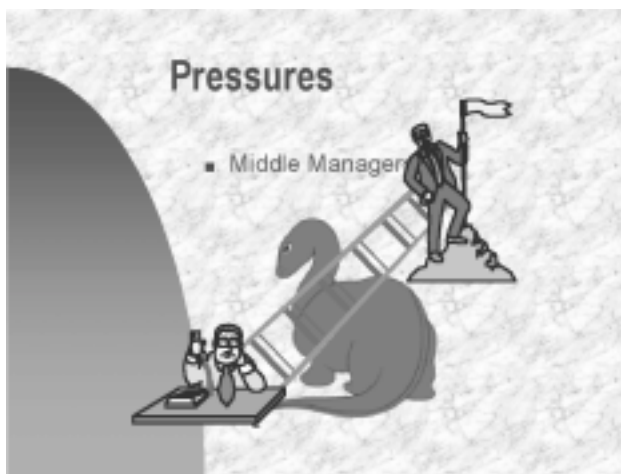
The first pressure we faced was bureaucracy. We could not get through to the people who actually could do the work for us, to quickly develop the system. We could not get through to them because of the masses of paperwork, and also different teams of people checking and rechecking. The annoying thing was that they did not understand the need for speed, they just thought " Oh this won't matter if it waits until next week or the week after. We realised that we needed to go to the people who actually did the work- went to visit them, chat to them, talked it over- they were very friendly and understanding. So we actually got them to do the work, negotiated it, and then the paperwork would come later and we managed to do everything a lot quicker.

Another pressure that we had were middle managers. The middle managers could not see what we were talking about; they could not sell it to the people at the top. I just want to quote from an article called " It is a lottery" , from CILIP Update Journal: February 2004, p42:

"Messages may be reinterpreted by higher managers, or simply not passed on."

I happen to know, and I can say this now, because a particular individual has retired and gone, that is what happened to a lot of our messages. They never got up to the people right at the top who make the decisions so they could realise that we could help them change things, and change

things quicker. Our messages were being blocked. The same article says that, often library services or new library services are blocked in the same way.



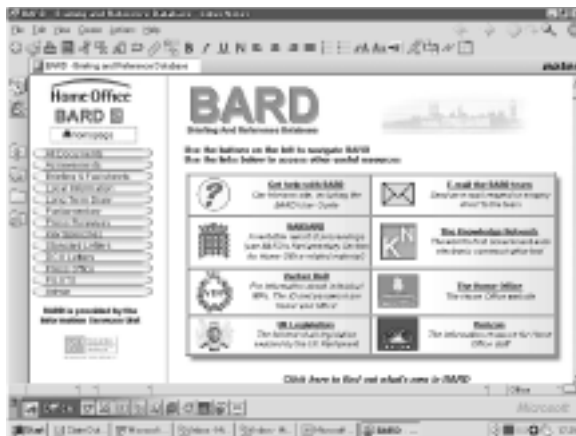
You can tell from this that what we were actually doing at the beginning was fighting and battling. The majority of our time- 60%- was taken in fighting battles, and 40% actually doing the job that we were supposed to be doing.

I was asked to join the ministers' offices for a while, to identify changes in the way they worked, because they were quite interested in the system. I just could not believe it in this day and age, that they were working mostly off paper, enclosed in cardboard jackets, and not electronically at all. They were even inexperienced at e-mail, or Word. Again, they needed dragging from the 19th Century to the 21st Century. Changing the way the Home Office worked had to start in the ministers' offices and this gave me the opportunity to bypass the middle managers. Our work was approved by the Permanent Secretary and it became part of the Corporate Change Programme- an overall umbrella in the Home Office for all the change projects that are going on.

This raised our profile incredibly: people sat up and took notice. We had pilots with private offices, and with officials, to help them see they could change the way they were working, and also to get their feedback to change the system to help them. The doubters had to accept it and this is a continuing process.

Benefits and achievements

The benefits of the system is that it is available out of hours, 24-7, so when all the officials or anybody else are fast asleep in bed, or are just not available, ministers and others have access to information. It is all in one place. It was easy to use and search, once you are trained on it. It allows rapid application development: we can develop as we go along, as we get feedback. It is not a system that is set in stone that needs complicated and expensive programming; we can change it ourselves very easily resulting in huge cost savings We can share development with other government departments, so if the Department of Health or DEFRA or DTI do something, or we do something, we can share it, because it all fits in with the software and is all owned by the Crown.



BARD demonstrated –Gillian Harrison

The Briefing and Reference Database (BARD) is set up in Lotus Notes. This is our current front page, but we are continuously developing it, so if you look at it in about 4 weeks time it will look completely different, but this is how it is for the minute. We are going to describe three features of the system.

Local area information

Now one of the big achievements we have made over the last couple of years is with the Local Area Information Desk page. Home Office has absolutely loads of different databases containing information, statistics-

you name it, we have got it. The databases provide really detailed information that is of use to a few people, but the high level information that these databases produce is of use to almost everybody in the Home Office, but it is extremely difficult for anybody to have access to that information, or indeed share it. So by working with the Ministerial Briefing Unit we have brought together all of this information into one key area with all the headlines, stats and information about the local authorities in England and Wales. We can arrange this information by local authorities, by MP, or by constituency, or by police force.

For each local authority, we get

- Which police force covers that area
- The link to the local authority web site
- Which constituencies fall within that local authority
- The corresponding MPs
- Probably the most important thing on here is the Review Date. We want that information to be updated at least every 4 months, so that people know it is fresh. There is no point having information there if nobody trusts it, and therefore nobody uses it.
- Demographic information: population, ethnic mix, religious mix, unemployment rates.
- The crime rate and information on street crime
- Police force strength, and the change on the previous year
- Funding information
- Information about key policy areas, such as Anti Social Behaviour Orders, asylum seekers and local authority wardens

You put all of that together from the different sources, so that everybody in the Home Office can access it at a touch of a button. It can be printed off for ministers when they go out on visits, so that the private office do not have to ring round lots of different areas, and try and put together a briefing for them each time. BARD has got a search facility which helps you identify the information quickly.

Now you would think that after we had done all that work that everybody in the Home Office would be really, really happy that they have got all of this information, and they can find it at the touch of a button. Well that is not necessarily true, because like everywhere, we have got people in the Home Office who you can give as much information as you want and you can make it as easy as you want for them to access it and to find it, but they still much prefer it if somebody else gives them the information. The private offices, especially the private secretaries would find this information of great use to them, but they still prefer it if they ring up officials. So while we have done a lot of the work on this, we are still only half way through the battle. Our big task at the minute is to make sure that the private secretaries, and in fact everybody knows how to use it, and sees the value of it, so we are still training people on using it.

Electronic parliamentary questions system

The next database that I am going to describe is an electronic parliamentary questions system. The Home Office, like many other departments, receive hundreds of PQs every day. The Home Office, like many departments, doesn't always meet the targets for answering them. Part of the problem is the process for dealing with PQs. Until we introduced this system, it was still done using yellow jackets. Information came into the parliamentary section, was printed off, sent out in yellow jackets and could take two days to reach the person who was going to actually respond to the PQ. They would write their bit, pass it on to somebody else, who would write their bit, and pass it on to somebody else. After four or five days when we have already missed the target the draft response was brought back to parliamentary section, who had to get special advisers to look at the draft and then get it cleared by ministers. Printing it out, making changes, sending it back, it would have taken us absolutely ages to answer the PQs. The time was not spent actually drafting the response, the time was spent in sending it to and from people using the internal mail system.

What we have done with this system is put the PQs into one central database, and it never leaves it. As soon as the PQ comes in, it is automatically imported into the system from The Stationery Office. The information is cross referenced, so that we can see which party the MP posing the question belongs to. The system is workflow based. The PQ will not leave the system, but an e-mail alert will go to the officer handling it, who then can come into the system, look at the PQ and move it onto

the next stage. We are already speeding up the process here, putting information in one place, and allowing people to access it. Because it is not on e-mail but on a central database, we are not losing control of it. With e-mail we would send it out, and people would make new versions of it and nobody would know which was the correct version. With the e-PQ system, we have always got the most up to date version on this system, and it moves on all the way through.

It has taken us quite a long time to develop. One of the big delays was not the development itself, but the change management issues that surrounded it, and the training, and showing people how to search the system. We are rolling it out now, and by April it should be fully rolled out across the Home Office

The Home Office is changing- we are trying to move towards more electronic working. That does not mean doing everything at the screen, but it means that we are trying to put as much as we can on to internal databases. Some people still want everything printed out, and they do not want to do that themselves, so they have to have a special person who can print it out for them, and then they will make their comments on hard copies, and then the special person has to go in and put them on again. Again I do not know how that is any quicker or any easier than just writing their comments on it electronically, and then sending it on, but they seem to think so, so the battle is not over, but we are almost there.

The circulars database – Corrine Jacques

The aim of the circular database in BARD was to create easy electronic access to the department's circulars, for staff, stakeholders and the general public. Circulars are numbered documents that communicate the department's official operational and policy guidance to stakeholders such as the police, the courts and coroners, to name but a few. They are not very exciting documents, but they are very important, and one of the drivers for this project was concern that the department was not dealing as effectively as it perhaps could have done with requests for published circulars. This was for a variety of reasons, the main ones being that we simply could not find them, after they had been published, and also we could not track them back to their unit of origin. Our collection of circulars dates back to 1856, and prior to this project they existed almost entirely in hard copy. As they can remain extant for decades, we knew that we needed a database that was able to manage the historical circulars, as well as all

future circulars. In addition we had publishing problems with the hard copy process, which meant that circulars were being published out of sequence, and they were not really being published to any standard format. So this database has been developed in order to reduce the administrative burden on the department in meeting requests for published circulars, to ensure that we meet our commitment to freedom of information, and to manage the hard copy, and electronic publishing process.

We have a very simple template for creating new circulars. This has been very well received by circular authors, and it requires minimal training to fill it in. Where possible, we have created pick lists to control the data in certain fields, and make them easier to fill in. We have created functionality that allows authors to link back to circulars that they are cancelling, or replacing, or amending. This creates a link from the old circular to the new circular, so that when people are viewing circulars electronically, and on the hard copy, they can be sure that they are looking at the current circular, the one that is still extant. In order to create this facility, we digitised 50,000 pages of hard copy circulars in the department's collection, and this also enables us to publish the historical collection, dating back to 1944. At the bottom of the template there is an area for the author to create the main body of the text, and below that we have the department's reprographic request, and distribution request forms. When the author has completed the template they click on a button which submits the circular with all the forms to our printers and distributors. They then pick the circular up in a submitted area and move it to the published area. It is at this point that the circular receives its sequential number, and this ensures that all our circulars are published sequentially. With the old hard copy system circulars were published out of sequence, and so we could have 1, 5 and 7 for 2004, which created confusion among the audience, because they often felt that they were missing circulars that had been published. It is also at this point when the circular is published that it becomes available to all staff in core Home Office, as well as some staff in our agencies.

It was a prerequisite of the development of this database that we would be able to publish to the internet, in order to share the information with our stakeholders and the general public. So the database was developed to replicate to the internet. It is currently sitting on the Knowledge Network site, and a link to the Home Office web site is imminent so that we can share the information

Not only have we taken a hard copy process that had not really changed for 150 years, and given fully searchable, electronic access to it, we have also improved the management of the publishing process. By capturing all the circulars as soon as they are authored, we now have a complete electronic archive, and this means that we are able to ensure that we catalogue all our circulars, and that we are able to legally deposit them.

What now? – Jan Parry

We are using the Electronic Working Programme using Lotus Notes for circulars, for electronic Parliamentary Questions, and for electronic submissions. They are all cradle to grave systems. That means both that we know where things are and we can produce performance statistics. This is very important for Home Office targets, because everybody wants to know how we are doing on those targets, and every part of this system can produce performance statistics.

We have already outlined some of the benefits and achievements visible to ministers and some senior civil servants. The system aids planning and version control, with one place for everything: no different versions on shared drives or on e-mail. To Home Office staff, their daily work is now going to be more standardised, structured and controlled. This is very important on things like submissions, because sometimes submissions can be about 20 or 30 pages long which is ridiculous, and nobody has time to read them. The service is going to standardise the way they do it. The system can deliver cost savings. We have to realise the benefits for this system as well, and people are already looking at other services such as whether the typing pool is going to be necessary or not with systems like this. By sharing information, it has helped to deliver Home Office aims which the people at the top.

We want to share externally, with the rest of government. We have mentioned we are using the Knowledge Network servers to share Home Office information over the Government Secure Intranet (GSI). We could use our own servers in the future, but at the moment the technology is there, so we are making use of it. We have had problems sharing circulars. Most people thought the system was OK. Officials agreed it was a good way to go. The distributors agreed it was a good way to go, but then other sections in the Home Office, unbelievably, put barriers in the way of being able to share the information externally, which is a bit of a ridiculous

situation. What I am trying to explain is the pressures and the barriers do not just come from IT suppliers or from outside: they can be within as well. It is obviously important that we put the electronic PQs system out to everyone in the Home Office who has to answer PQs. Some of these people are not on our network, which previously has proved a problem for our IT suppliers. What we are going to do is use the Knowledge Network Server and send it out in a browser version, but people in the prison and probation services will still be able to write to it and answer their PQs electronically. That is a new project which we are starting now, and again we are aiming to be able to do that after Easter. We are going to give people who are not on our network access to the systems, so there is no reason whatsoever that we could not give other government departments, or indeed anybody, access to our information if we want to in the same way.

Why librarians

Librarians have driven many of the things we've been describing. We are good at organising information, and we are damn good at retrieving it as well. You would be surprised, or you may not be, about how many people who work in the civil service are not good at those things. Our skills are very necessary. We gain experience of project management, which is something that is a good thing to have, and of training people. We are customer orientated and very good at training people: we are very patient, and we are very good at putting things across in simple terms to laymen. We get the pleasure of providing a system for sharing information, which is good, and we know how to share.

We will probably have other projects included in this electronic working programme. The system, of course, may be replaced at some point in the future, or superseded by something else that comes along, and we accept that. What we are pleased about is that we have provided the Home Office with a method of sharing information electronically now, as opposed to waiting for the all singing and all dancing solution that, I have no doubt, our IT suppliers have been working on for years. We have given them the ability to share information outside of our network and nobody has done that before. Librarians, as far as I am concerned, have always been joined up and are working hard joining up government, and I think we should keep doing it!



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How knowledge became yellow

By Carol Gray

HM Customs and Excise

Customs and Excise has put knowledge at the very heart of its strategy to become the best risk management organisation in the public sector. Carol describes Customs and Excise's journey to reach this point, what they learned along the way and the implications of this for sharing information across government.

Introduction

To start with some context about Customs & Excise. We have:

- 22,000 staff
- 330 locations
- A wide and diverse range of activity ranging from assurance officers who work with businesses day to day helping them comply with the law to investigators who often work in very dangerous situations undercover.

The implication of this wide range of activity is that there are very wide and diverse cultures.

The thing which unifies this diverse activity and cultures is our strategic aim to be the best public sector risk management organisation.

This was our Chairman, Mike Eland's recent statement to the Department:

“If we are to make a real step change in our performance, we need to improve our capture and analysis of information and improve our assessment of risk and opportunities for intervention.

In part, this is about better systems and analytical tools and the e-programme is designed to deliver these. But we also need to manage knowledge and risk assessment better and develop a culture of feedback, sharing, collaboration and learning.”

Such statements are obviously a great boost for those of us who are working to improve knowledge management.

I am going to describe how we came to the point where knowledge sharing is regarded as a corporate priority, not because it provides a model for how you *should* do anything. It just provides some food for thought about some of the issues that are facing government in general in trying to promote knowledge sharing across government.

The knowledge programme 1

We established our first knowledge management programme about four years ago. It really started with the arrival of a new Director who had great enthusiasm for knowledge management. One of the first things this Director did after his appointment was set up a knowledge management programme. We had all the conventional ingredients for success in the programme: we had a board level champion; we had considerable financial resources; we had a healthy mix of internal experts - librarians, change managers, internal consultants and external consultants; we had a Steering Committee which drew on experts from the private sector, gurus in the knowledge management area and respected knowledge organisations; and we undertook wide consultation with our business areas to find out what they wanted from a knowledge management programme.

From that consultation we devised a programme, which included:

- Development of a staff portal, supported by a content architecture
- Development of communities of practice, focussing on the role of human interaction and the human network in creating and sharing knowledge; and, probably most importantly we

- Set up a range of business pilots to demonstrate to business managers the practical benefits of knowledge management.

The pilots, working with people in our operational areas, did quite simple things like facilitate the development of guides that captured the knowledge of people working on the front line. We developed 'Electronic Postcards' which went down really well in some of our work areas. Again, these were very simple, conceptually. Whenever anybody identified something that they thought other people should know about, they filled in an on-line postcard and e-mailed it to other areas doing similar work. We did some knowledge mapping in our Large Business Group and developed the results into a product called the 'Knowledge Navigator' which provided links to all the knowledge sources people needed on a particular trade sector. On-line discussion groups also went down well in certain areas. But probably the simplest thing of all was the physical 'information points' where people who worked on shifts could leave knowledge and information which might be of use to people on the following shifts. That might seem very simple but one of the problems we were finding on the front line was that people working on different shifts weren't passing knowledge on from one shift the other simply because they didn't physically see each other. So a very simple solution was just to create a knowledge sharing area so that they could dump their knowledge at the end of the shift so that the next shift could actually see what was going on.

One of the reasons the ideas we trialed were very simple was our technology platform was and is very immature in a lot of ways. We wanted to show people that knowledge management wasn't about whizzy technology.

Our advising consultants worked out that the organisation achieved considerable benefit from these pilots. There were three pilots in three areas over three months, and out of those pilots we got 61 re-usable knowledge assets - things like the best practice guides and the postcards. More important for our business areas, we were able to attribute an extra £8 million in revenue as being collected as a result of the knowledge sharing stimulated by the knowledge management pilots. All in all the pilots demonstrated that very strong business benefits could be derived from improved knowledge management.

You would have thought that it would be quite easy to sell knowledge management in the context of such benefits and that from thereon in it

would be plain sailing gaining investment in KM. Unfortunately it wasn't like that. When the pilots finished, we held a big event for senior managers during which we described our findings. The managers had the chance to network and to discuss what KM might mean for their business areas. There was lots of enthusiasm but the burning question was 'was it possible to replicate the success of the pilots across the wider organisation?' This was where it got difficult.

We were able to show people that KM could produce big benefits. We had a lot of sign up but the big problem we found was that we were missing the road map that helps you move from pilot stage to full implementation. The key problem was that while the business areas wanted the benefits, they hadn't, at that stage, really thought specifically about how knowledge contributed to their business objectives nor about what they needed to do differently to ensure the right knowledge was flowing to the right people to deliver the benefits. It was also difficult for people to make the link between the benefits they had seen and the sort of investment that needed to be made in the knowledge infrastructure.

The e-business Programme

Around about the time we were grappling with the problems of how to maintain the momentum of the pilots, the Department came under a lot of pressure to reduce expenditure on its e-business programme. It was decided to re-prioritise our business change programme (the e-business programme) and we found ourselves without any funding specifically for knowledge management developments. The rationale was that the business areas would sponsor change projects that would meet their specific business needs and that knowledge management improvements would gradually fall out of those. For example, if we developed a system providing a single view of our customers we would get wider knowledge management improvements because of the improved information management the system would require to support it. The idea was that I, as Chief Knowledge Officer, would sit on all project management boards for the new projects and I would encourage people to consider knowledge management and knowledge sharing requirements and opportunities within their projects. That was fine in principle - at the beginning of projects, people were happy to listen but once they were up against tight deadlines to deliver a system to which improved knowledge management was regarded as peripheral, the knowledge management elements were

dropped. That's not to say we weren't doing anything else to promote knowledge management at this time. We had, through the pilots, developed quite a strong network of people who were local knowledge management champions. We were able to work with them to take forward a lot of the ideas developed during the knowledge management programme. A lot of people saw the value of the communities and we were able to develop communities with them. People carried on filling in and circulating the postcards. A lot was going on but what they weren't doing was adding up to a coherent overall strategy, which would create the step change in knowledge management that we wanted. It was all very piecemeal. Because all of us in the team were very enthusiastic about knowledge working, we could have carried on like that, enjoying the small achievements but knowing that it wasn't making a big difference.

The operating model

Fortuitously it was about this time that there was a general recognition in the Department that the whole e-programme was lacking that overall framework, or road map, for what it was doing. A business architecture team was set up and began the task of trying to develop a model of what the organisation should look like in 2010. The purpose of this model was to help determine the priorities we should be funding and to identify what the interdependencies between the various changes in our e-business programme were. The way the team went about doing this was to ask every business function to look at their processes and consider, with stakeholders, what it should be like in 2010. People did that to different degrees of quality, but what the 'To Be' models, as they were called, showed was that for all of the business areas better knowledge sharing was central to the improvements they wanted to make. By looking very fundamentally at what business units wanted to achieve it became clear to them that improved knowledge management and sharing was the key thing that would enable these changes. We learnt from this that that to get that real understanding of the role of knowledge and real buy-in at a strategic level, people really need to break down what they are doing into its constituent parts, look at it in a visionary way and then put it back together. It's only when all these 'To Be' models were brought together that people began to realise that the whole of the organisation's success depended on how knowledge was managed and shared. Putting this map together showed how knowledge management contributed to where the organisation wanted to be as a whole. This map is the 'Operating Model',

and it is how knowledge became yellow – yellow was the colour used to denote the knowledge capabilities we needed to develop to support the proper use and flow of knowledge across the organisation and ‘yellow’ became the shorthand for the new ‘Knowledge Centre’ proposed by the model. The Knowledge Centre includes functions like:

- Content and document management;
- expert knowledge services, which covers professional information services such as library services;
- Intelligence;
- Data storage and management; and
- analysis

As a model, it looks horrible, like a wiring diagram of the electrics in a house but setting out the core knowledge capabilities and their links with every other process in this way helped people understand the role of knowledge. It really created a step change for the way knowledge was perceived in Customs and Excise.

It took about nine months to get agreement to this model. Most of that time was spent getting agreement to things like “What do we call that box?” adding boxes and taking boxes away. For most people in the organisation now, it is something which, if they don’t understand it, they recognise. It has resulted in quite a few changes already. I said that we moved from having a knowledge management programme with lots of money and lots of profile, to a position where knowledge was meant to drop out of other projects. We’ve now gone back to a position where we’ve got a specific knowledge programme again, managed within the Knowledge Centre.

The Knowledge Programme 2

The Knowledge Centre has got two purposes. One is to deliver the set of core knowledge services that sit within the yellow part of the Operating Model, and the other is to manage the new Knowledge Programme. This Programme is focused very clearly on improving the way we identify, analyse and manage risk to increase revenue, rather than how we improve the way we manage knowledge in its own right. Having reached the point where the organisation is clear about how knowledge contributes to its

business objectives, we've still got the big issue of how to actually make this happen, which in some ways takes us back four years to where we were before. It should be easier because of the organisational buy-in and the closer link with strategy but when you look at the Operating Model, you think "Where do we start? Which bits do you do first?" There is a tendency to focus on organisational structures and developing individual capabilities one after another but it can't work like that because knowledge sharing isn't about lines and boxes, its about relationships and networks between people. We have an incredible challenge still in trying to implement the principles which lie behind this model.

Conclusion

As a postscript to this, there is currently a review looking at whether Customs and Excise and the Inland Revenue should be merged or at least increase our closer working with each other. Custom's approach to developing our knowledge capabilities has attracted considerable interest from the team that are running that review. They recognise that the way the two organisations share knowledge is key to that relationship between them, whether they're merged or work more closely. The key to them being more successful either individually or as a single entity is how they share knowledge. They appreciate that this sort of model, while it may not be panacea, quite nicely represents the role of knowledge in achieving objectives. That's where we are. It has been long and arduous, but I feel very optimistic. We've reached a very good point but there are still all the challenges of how we actually do this. We are only going to be able to develop our Operating Model if we apply knowledge working behaviours- if we are able to harness our collective knowledge to develop and implement new services within a highly complex and ever-changing environment. A real challenge for Customs and government as a whole is the extent to which these knowledge working skills and behaviours exist and how quickly they can be developed.

Are UK government websites any more friendly?

By John Scott Cree

Government Chief Social Researcher's Office, The Prime Minister's Strategy Unit

Introduction

To be effective, websites need to be user friendly but, for users to access them readily, websites also need to be search engine friendly. An article in 2002 in *State Librarian*¹ examined the friendliness of UK government websites. The tool websitegarage was used to analyse each site for browser compatibility, load time, size, html accuracy, spelling, dead links, link popularity, and the presence and use of metadata.

Results showed that UK government websites visited were generally not very friendly and with no model of excellence. Of 15 sites examined, 2 were found to be "Good", 2 "Poor" and the remainder only "Fair". It was not possible to determine the weighting which websitegarage gave to each criterion on which it judged the sites. However, it was possible to see from the source data of those sites which came out poorly, that they were not search engine friendly. There were too many images on their homepages, they were too large and too slow to download; they didn't use metadata correctly, if at all; there were errors in their html coding. A different tool may have achieved different results. However, all sites were subject to the same websitegarage analysis and some came out well under some headings.

Since the first article, the UK government has published significant guidance for UK government websites². A web search also indicates

that others are monitoring government websites. On 10 Apr 2003 B2W (<http://www.business2www.com/news.html?id=5708>) reported on tests of "leading government websites", using their tool SiteMorse. Of the 55 sites tested, over half (29) had over 100 errors, and 10 had over 500. Examples of site errors are given as faulty email addresses, server errors, broken links, DNS setting and bad paths on the site.

HM Treasury was reported to have

"over 6,000 errors. Other sites which performed poorly were the Office of National Statistics, the Department of Health, perhaps most worryingly the Department of Trade & Industry (which has thousands of broken links alone)

Some sites were extremely impressive ... Of the 'On-Line specialist' sites, the Office of the E-Envoy also performed well. The average UK corporate website when tested by B2W had 85 errors; the government average was 600 - nearly 7 times as many. The number of site warnings [defined as poor operating code and frequently violations of W3C or IETF standards, which may affect the visual display of the site or slow it down] was also significantly higher, and servers were slower. Calculated Download Speed was, however, faster than the FTSE 100 average.

"No less than 42 of the 55 sites (80%) failed the metadata test, which is broadly in line with the requirements now being developed as a key government site standard (EGMS)."

This article has revisited, where possible, the UK government homepages tested in the 2002 article¹, to test again for friendliness.

Methodology

In June 2004, the following UK government websites, in key spending areas, were visited:

Department of Health (DH);

Department for Education and Skills (DfES);

Ministry of Defence (MOD);

Department of the Environment, Food and Rural Affairs (DEFRA);
Office of the Deputy Prime Minister (ODPM - formerly Department of Transport, Local Government and the Regions (DTLR));
Department for Transport (formerly part of DTLR),
Foreign and Commonwealth Office (FCO);
Health and Safety Executive (HSE);
Home Office (HO);
Department of Trade and Industry (DTI);
Cabinet Office (CO);
HM Treasury (HMT);
Department of Work and Pensions (DWP);
Govtalk;
Office of e-Envoy (OeE);
Direct.gov (formerly Ukonline);
Inland Revenue (IR)

As Websitegarage no longer exists, I began by using a selection of tools from Doctor Watson (<http://watson.addy.com>). This tool can check HTML syntax, verify regular links, verify image links, generate word counts, spell-check non-HTML text, compute estimated download speeds, check search engine compatibility and check site link popularity.

Comparison of results with tools on Instant Position (www.instantposition.com) and Meta Tag Analyzer on Scrubtheweb (www.scrubtheweb.com) allowed some verification.

What users look for

Search Engine Optimization websites like the above-mentioned, draw attention to user behaviour in seeking to access a site via a search engine. Users do not wish to trawl through pages of retrieved references to find a site they want. They expect it to be near the top of the list. It is possible for website owners to pay search engines for placement of sites but high ranking on search results can also be achieved by making sites search engine friendly.

Table 1 Size and load speed of UK government websites 2002/2004

Department	Homepage size with attachments (KB) 2002	Homepage size with attachments (KB) 2004	Load speed with 56K modem 2004	Number of images 2004
Ukonline (replaced by Direct.gov)	85.3	24.3	6.95	1*
HMT	109.8	78.4	22.41	36
CO	92.8	46	13.15	34
OeE	39.5	16.7	4.78	
DH	49.2	22.3	6.39	1*
MOD	61.7	4.3*	1.24	1*
DTI	74.4	72.4	20.69	17
HO	83.8	97.2	27.78	43
DFES	96.0	42.5	12.16	1?
Govtalk	45.4	15.8	4.52	
HSE	79.6	69.2	19.8	17 + 1 Java applet
FCO	61.6	46.8	13.37	*
DTLR (replaced by ODPM and DFT)	29.1			
ODPM		0.9*	0.33	*
DFT		59.6	17.05	13
DWP	39.0	52.5	15.02	39
IR	N/A	25.8	13.1	22
DEFRA	17.5	31.9	9.12	6

What search engines look for

Among other things, search engines look for browser compatibility, dead links, link popularity, HTML design, and metadata. As well as the tools which I listed above, there are several products e.g. from W3C, plus the afore-mentioned SiteMorse, which test sites for these attributes, as well as for load time, spelling etc. Some offer a free examination with a subsequent charge to fix problems and provide ongoing monitoring.

Browser compatibility - Some document coding is unacceptable to certain browsers. It is important to test sites against known browsers, to see how they look. Checks on UK government websites created a number of warnings for most sites that html coding on cited lines of a homepage, was not compatible with certain browsers.

Load time: the yawn factor - It is easy to be lulled into a false sense of security by the relatively fast connections which most government intranets now offer. However, it is important to remember that most public access will not be this fast. For this reason, the Yahoo homepage, for example, aims to load in about 6 seconds using a 56K modem. Search Engine Optimization recognises that most users will not wait longer than 20 seconds for a page to download. Results in Table 1 show several UK government websites which are taking too long to load.

Load time is dependent on the size of the page, the number of images on the page, the size of each image, and the speed of the modem.

Size: Websitegarage advised that the size of the homepage should be less than 40KB. 9 UK government homepages in 2004 are much in excess of this. Additionally, HMT does not fit standard 800 x 600 page resolution, which inconveniences users and prints pages truncated on the right margin. Others websites have very large graphics and, without height, width and ALT information in , they take even longer to load.

Speed: I used Dr Watson to check homepage sizes and load time. Table 1 shows the respective sizes of homepages, number of images and their load speed, with 2002 results for comparison

There are some reductions in size since 2002. The large 2002 websites like HMT and DTI have downsized a little, but they still take longer than 20 seconds to load and have now been exceeded in slowness and bulk by a huge Home Office homepage and HSE is not far behind. Most sites

appear to beat the 20-second user boredom threshold but some are close to not doing so.

Some very fast load times and a reported absence of images (marked *) indicate the need for some analytical caution here. Examination of the homepage source data to verify the very fast load times of ODPM and MoD, showed that the tool was measuring only the small top frame of each, which was a link to the Direct.gov website. The low number of images recorded for FCO, DH, DFES, Direct.gov, do not seem to be supported by examination of these pages, although it was not possible to examine the source data for the FCO page. It was not clear in these cases, what Dr Watson was measuring.

DEFRA which achieved an excellent rating in 2002 for its small size and few attachments, has grown significantly but still loads in a respectable time.

There is a correlation between large size (including images) and slow load time in UK government websites.

Dead links: UK government websites scored well in this area in the 2002 exercise. I did not re-test in 2004, as many webmasters have installed software to run regular checks for broken links.

Link popularity: Search engines can measure the number of links which other websites, which they have indexed, contain to a given website. Some engines use this measure to help rank websites in search results. Results for UK government websites are at Table 2.

The relatively low results for most sites from Google are likely to be reflected in the indexing and placings which Google gives to those sites (although not, apparently for DFES – see below) and may indicate some work for webmasters.

Some UK government websites e.g. DTI and DH have restructured but without giving sufficient thought to other sites which had links to their pages. The results are thousands of broken links.

The Department of Health restructured and changed from .doh to .dh domain in February 2004. One site <http://www.bjhc.co.uk/news/1/2004/j4016.htm> complains of the changes that

Table 2 Link popularity of UK government websites (2004)

Department	Google	AllThe Web	AltaVista	Hotbot	MSN
Direct.gov	13200	165004	30201	15228	18347
HMT	2930	6060	12401	10099	9913
CO	1690	23356	7070	9019	8924
OeE	1280	2763	4809	3969	3886
DH	16500	11391	6840	4744	4831
MOD	5320	187422	16888	11192	11128
DTI	11600	30994	41652	36905	36451
HO	6450	5855	22675	22438	22213
DFES	12200	15462	29598	25762	25151
Govtalk	545	435	622	1051	1046
HSE	4570	18402	13537	12999	12792
FCO	5690	7355	28710	43779	44935
ODPM	2320	6189	12215	8850	8905
DfT	1420	6370	11964	7966	8005
DWP	3160	4961	10025	7125	7038
IR	4410	3589	31700	13107	13133
DEFRA	12800	10998	25822	22597	22651
Department	Google	AllThe Web	AltaVista	Hotbot	MSN

"the Department has ... completely revamped the internal addressing of the site. Unfortunately, the Department hasn't bothered to keep any of the old URLs, or provide cross-links into the new database-driven website. The result is that no links to documents on the Department's website now work. Organisations

that have built up collections of links to documents and announcements on the DoH's website will now find their links useless. That even goes for search engines such as Google, which are still returning links to the old website, not the new."

Another site linking to DH (<http://www.nhsinherths.nhs.uk/hp/whatsnew.htm>) advises that links to specific documents are now "redirected unhelpfully to the new homepage." The site is attempting to link into "archived DoH documents via the Public Record Office website".

Some areas of the CO website e.g. on modernising government were taken down but have since been republished in a separate archive area: <http://archive.cabinetoffice.gov.uk>

Some UK government websites e.g. HO and HMT, attempt to work round the problem of documents being taken down, by linking now to archived versions of their documents on The Stationery Office (TSO)'s <http://www.official-documents.co.uk>

When DSS became DWP, it retained .dss domain urls. When DWP subsequently relabelled their webpages from.html extensions, the 404-error message helpfully advised users to retry using a .asp extension.

Table 2a shows that links to old sites still exist in large numbers.

Table 2a Pages indexed by Search engines linking to "old" UK government webpages (2004)

Department (former name)	Google	AllThe Web	AltaVista	Hotbot	MSN
Ukonline	13200	16035	132029	73774	64030
DTLR	580	4342	2985	2394	2349
DSS	3160	9535	3457	3677	3599
DOH	16500	15635	81500	35690	37514

DH link popularity on Google is the same as that for its former doh domain, However, other search engines have not indexed so readily pages with new DH domain names, which may mean missing links and unsatisfied users.

Table 3 Search engine saturation of UK government websites (2004)

Department	Google	AllThe Web	Alta Vista	Hotbot
Direct.gov	3340	0	5	5
HMT	21200	0	4697	1896
CO	6180	1	1180	958
OeE	305	48	484	221
DH	24600	1	2070	557
MOD.UK	7090	1	3282	1900
DTI	32600	21	8217	6440
HO	9700	0	6545	5027
DFES	112000	0	68	12
Govtalk	4870	97	508	130
HSE	21500	9	6656	5037
FCO	4810	0	2936	2231
ODPM	48600	1	2763	1535
DfT	44500	1	1881	1025
DWP	21600	0	23	4
IR	87600	6	40200	8887
DEFRA	54800	18	8515	6487
Department	Google	AllThe Web	Alta Vista	Hotbot

There is an interesting footnote to the archiving of UK government websites. For some years there was acknowledgement of the problem but no agreement on how to proceed. As late as June 2002, the Office of the e-Envoy issued a consultation document². In the meantime, [http://](#)

www.waybackmachine.org began archiving sites in 1996 and continues to do so. Coverage is not systematic and there are errors e.g. one DH site labelled February 2002 actually comes from August that year; and a DH site for 2001 is in fact the Europa site. Not all archived sites remain accessible e.g. those for Cabinet Office and DTLR. However, Waybackmachine is useful for plugging some gaps.

Search Engine saturation is the number of website pages behind the homepage, which search engines index. I used Instant Position to check “search engine saturation” of UK government websites. Results are at Table 3.

The DFES results on Google are outstanding but, bizarrely, do not seem to be reflected in results for other search engines. One of the problems with tools like Instant Position, which search across multiple engines, is that they “time-out” relatively quickly, if an engine is not available immediately. DWP appears to have similar problems to DFES. Similarly, my first set of Instant Position results for IR yielded a zero return under Google. I checked with a Google search on “Inland Revenue”, which indicated strong saturation. I ran the Instant Position IR check again, with the above improved results. Webmasters may wish to run separate checks on each search engine, to confirm results and see where submission may be necessary.

Table 3a shows how many pages from old domains continue to be indexed:

Table 3a “Old” UK government web pages still indexed by search engines (2004)

Department (former name)	Google	AllThe Web	Alta Vista	Hotbot
Ukonline	1740	0	925	703
DTLR	749	0	555	397
DSS	1530	10	2396	151
DOH	27900	0	163000	1129
Department	Google	AllThe Web	Alta Vista	Hotbot

Spelling: UK government websites scored well in this area in the 2002 exercise. I did not re-test in 2004, as all in the organisation can identify and draw attention to spelling errors.

HTML Design: HTML coding errors may confuse some browsers. Errors highlighted most commonly were for missing “close” tags. Webmasters will be aware of the need to avoid these problems by verifying the html coding which software like FrontPage and DreamWeaver creates.

Metadata on government websites: The Office of the e-Envoy had published the e-Government Metadata Framework in May 2001 and, shortly after my 2002 exercise, the e-Government Metadata Standard (April 2002), which was updated to version 3.0 on 29 April 2004³. I used Instant Position’s SEO Doctor to analyse Metadata in UK government websites. Table 4 shows a significant improvement over 2002 results. In 2002, only five sites - HO, FCO, DWP, HMT and e-Envoy had metadata present. Some metadata are now identified in all UK government websites. However, there are problems:

SEO Doctor works on the basis that search engines are looking for a title in the header information and metadata keywords and description.

All UK government homepages examined in June 2004 carried data in a <title> tag, although Department of Health and Office of the e-Envoy called theirs unhelpfully <Homepage>. This means that the title will only be retrieved by the unlikely search “Homepage”. Moreover, if a user has bookmarked e-Envoy in their Favourites folder and they subsequently bookmark another page with the title “Homepage”, it will overwrite the e-Envoy link. Department of Health renamed their title shortly afterwards as <DH home>.

Some pages also carried these data in both a header tag <title> and a meta tag labelled <DC.Title>. DC refers to Dublin Core which is the standard set of descriptors for electronic documents.

Zero SEO Doctor results for meta keywords prompted examination of the source data of relevant pages. I found that, in fact, these data are present in some cases (DEFRA, DWP, OeE, Govtalk,) either in the form <DC.Subject keyword> or <“keywords”>.

Similarly, examination of source data where zero SEO Doctor results for meta description are given, shows either <DC.Description> or <“Description”> tag to be present in Direct.gov, DfES, OeE, HO, DH

(although the DH tag holds data which are more title than description data). It would appear that although description and keywords are present in some cases, their tag labels are not being picked up by SEO Doctor and, probably by extension, not by some search engines.

Table 4 Metadata in UK government websites (2004)

Department	Meta keywords out of 5	Meta description out of 5	Page content out of 8	Headlines out of 1	Image Alt tags out of 1
CO	4	2	7.5	1	1
FCO	4	2	7.5	1	1
HSE	2	1	7.5	1	1
DFT	2	0	7.5	1	0.75
HMT	2	5	2	1	0.75
DEFRA	0	0	7.5	1	1
DfES	0	0	7.5	1	1
Direct.gov	0	0	7.5	1	1
DWP	1	0	7.5	0	0.75
OeE	0	0	7.5	1	0.5
DH	0	0	7.5	0.75	0.5
DTI	0	0	7.5	0	0.75
HO	0	0	7.5	0	0.75
Govtalk	2	2	2	1	1
ODPM	0	0	2	0	0
MoD	0	0	2	0	0
IR	1	1	0	0	0.75
Direct.gov	0	0	0	0	0

IR scored for having Keyword and Description tags present, but no data within them.

In view of the low results for keyword and description metadata, I also used Meta Tag Analyzer (MTA) on www.scrubtheweb.com to verify results for DH, DEFRA and DWP. I also used it to check the high results for CO and FCO; I had been unable to view FCO source data when checking for number of images at Table 1 above, but MTA could see it. Some of these warnings are repeats of what was reported in the 2002 article,¹ which appears to have missed its target audience.

CO – MTA finds Description and Keywords present, but warns that Description has too many characters (224) for what they consider to be a robot friendly Web page.

FCO - MTA finds Description and Keywords in FCO metadata but advises that there are too many characters in the Description and warns that the Keywords tag may be disqualified, because the word " Foreign " is repeated 4 times. MTA also noted that the url www.fco.gov.uk was redirected to a url with an unfriendly character (probably the "?") and advises that not all search engines will follow redirects.

DWP – MTA says that Keywords are present and acceptable but need improving; MTA warns that Description is not present.

DH, DEFRA, DFES – MTA warns that Description and Keywords are not present or are being used incorrectly.

MTA advises generally that phrases be used in keywords. MTA seems to support the analysis of SEO Doctor at Table 4 above.

However, there is clearly inconsistency among UK government websites on whether to label tags <DC.Description> or <"Description"> etc. Moreover, the e-Government metadata standard³ (e-GMS) is at variance with the analyses by SEO Doctor and MTA. The e-GMS standard says that Description is optional and appears to say that Keywords are mandatory only at the Government Category List (GCL) refinement level. The problem with sites which include keywords only in the GCL refinement level, is that data in the GCL refinement level will only be picked up by those browsers which are configured for this – i.e. those on GSI. GCL data alone will not help those sites which want to optimise their presence on WWW.

Webmasters may wish to use another tool like Meta Scanner on <http://www.submitcorner.com/Tools/Metascan/> to verify their results.

SEO Doctor finds that most UK government homepages score well on ALT data for images.

Unsurprisingly, on Page content results, ODPM and MOD do not score well because, as mentioned previously, only their top frame with a link to Direct.gov appears to be captured by the robot. Treasury homepage is penalised for missing words in the first 200 words of viewable text, which appear in metadata keywords.

Conclusions

There have been improvements on some UK government websites since the previous exercise in March 2002. Very large sites (HMT, DTI) have scaled down in size slightly but others (HO, HSE) have crept up to join them and others are also slow to load.

With increased awareness of the need for accessibility, most sites visited now label images with ALT data.

Some metadata are now present in all government websites but not always with an understanding of what search engines are looking to capture, with unfortunate consequences for users.

Most UK government websites are not using metadata correctly, hence missing opportunities for search engines to capture their pages.

Labelling of tags is inconsistent. Use of the Dublin Core letters DC. before the name of the tag would seem to be an optional extra for the web tools used (and hence search engines), but not an either/or. It may be necessary to use both forms of label.

Unlike the web tools used (and hence search engines), the e-Government metadata standard does not view keywords and description as mandatory.

There would seem to be a case for e_Government Unit who have taken over from e_Envoy, to:

- review the visibility to search engines of the various tag labels
- direct the use e.g. of both <subject> and <DC. subject> if appropriate
- review whether to make keywords and description mandatory
- co-ordinate and impose a standard metadata template for use across government.

References

- 1 How friendly are government websites?, State Librarian, Summer-Autumn 2002 On *State Librarian*, <http://www.circleofstatelibrarians.co.uk/summer-autumn2002.pdf>, Summer-Autumn. (checked 19 June 2004)
- 2 *Framework for senior managers*, Office of the e-Envoy, November 2001 (perhaps too late for the March 2002 exercise)
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- 3 e-Government Metadata Standard, Office of the e-Envoy, 2004, (Version3.0).

“ In common with the information industry overall, librarianship in the government sector is changing rapidly - with opportunities existing for more development if the people involved push for them. Why should librarians be pushing for even more change, you may ask? Because otherwise we risk being 'left out in the cold' - the hot topics at the moment are related to modernising government and FoI; in other words to the organisation and retrieval of information - who better to lead on this than librarians? If we do nothing we risk IT and business analysts running the show... and the librarians complaining afterwards what a mess they have made of it! ”

Sue Hill

To discuss the issues raised please contact Nicola Franklin or Sue Hill

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