

Information and Knowledge Management (IKM) in the World's Best Public Service

1. Overview

IKM has been an established discipline since 1991 but it means different things to different people. To some it is little more than improving the way that information is managed and getting the right information to the right people at the right time.

It is most often IT focused. It is perceived to be about intranets, portals, content management systems, records and documents management systems and the like. The paradigm is about capturing knowledge, even 'extracting it from people's heads' and storing it in IT Systems for convenient access. Often a 'complete KM solution' is taken as 'search engine'.

'The mistaken idea is that what is in people's heads (knowledge) is fundamentally the same stuff as can be documented in words, pictures, charts, etc (information). This underestimates the unique and essential value-adding role of people, who make things happen by applying skills, experience, reason, intuition, passion, and decision to information. You can't bottle this stuff.'
Credit: Steve Barth

IKM is frequently badly implemented by people who try 'to do KM' or to create a 'learning or knowledge driven organization'; or even a 'knowledge sharing culture' and who fail to focus on the business and tangible business outcomes.

These two mindsets have resulted in many failed IKM initiatives - maybe as high as 70% - and have led to IKM receiving a bad name in some quarters despite its successes.

Many people have always believed the following about IKM while others are still learning the hard way:

- IKM is **NOT** about ICT though ICT can often enable IKM;
- IKM is not just about data or records and documents, though these are often part of any solution;

- It is not about 'doing' IKM. It is about solving business problems and mitigating business risks using business tools - many of which are IKM tools.
- IKM is about improved decision making, change and innovation that are brought about through new ways of perceiving, thinking and understanding the world.

Better understanding comes from improved communication, open conversation, collaboration, knowledge sharing and continuous informal learning as well as ease of access to varieties of information designed to support decision making. In short, IKM is about improving the way that our people work and interact.

- With the advent of 'social tools' such as blogs and wikis combined with face to face tools such as after-action-reviews, knowledge and innovation cafes and business performance communities – powerful social-oriented knowledge sharing tools - IKM is going social. New younger staff are used to operating in this way in the outside world, and will demand that we use these tools to support the way they wish to work.
- IKM is moving from just a 'lets capture it and bottle it paradigm' i.e. just the Information part of IKM, to a 'social let's have conversations about it paradigm' either through face to face conversations, online 'Communities of Practice' (CoP) and Knowledge Cafes etc.
- IKM is not just about solving known problems it's about surfacing unknown problems and unseen opportunities. The AHAA! factor.

2. The future of IKM

The recent global financial crisis has highlighted that globalisation will continue to affect us in ways not yet thought of. Industries will go out of business because of the use of technology across the globe, for us in the APS it is about managing tighter funds in a more holistic and effective manner, and yet harnessing the technologies now available to deliver information to the knowledge based workers within the department.

As IKM evolves, it will come to be more about managing the change and complexity in our world and instigating the change that is needed as many of the old antiquated industrial age systems (i.e. process systems) and ways of thinking break down.

This is the new challenge. How do we in the APS cope with rapid change and complexity? The answer lies in how we make sense of the world and manage our knowledge.

3. IKM in the Australian Public Service - Now.

Looking at the resources that the public service uses, there are in fact only 3, in simple terms, they are:

1. People;
2. Money; and
3. Information

Two of these three resources, people and money, are pretty well managed, with overarching frameworks, policies and reporting mechanisms being set by relevant agencies, PM and C and Department of Finance and Administration. Local procedures are developed under these guidelines.

Some agencies are connected to the management of Information; these include AGIMO and National Archives of Australia. However they don't see their purview as 'Information' as such. AGIMO sees its role as governance of ICT focussing on the communications and technology. Though they are responsible for work going on around the National Government Information Licencing Framework (NGILF) National Archives sees its role as an archival service of records of Australia, this includes the management of the lifecycle of these records, not just the storage.

For this reason, there is no centre of information and knowledge management expertise within the public sector that can be seen as specialists in the various sections of the IKM field. Currently many organisations have a Chief Information Officer, whose role is to run ICT, however again, what usually happens is the focus is on delivering ICT services, not necessarily information services.

Scattered around the public service are a number of people who have very specialised skills in this area, with a number of communities of practice where they share their learnings. There is no formal process to gather this together and develop APS wide frameworks, policies and even procedures for the management of the various information sources used within government.

The British Government has looked at addressing this issue by creating the 'Office of Public Sector Information'. However this Office still does not seem to help other public Agencies to *create* quality information policy and skills to create reliable and usable

digital assets. Another report, called 'The Power of Information Task Force Report' was delivered to the British Government in Feb 2009, touches on improving ICT skills to support Information Management, however there is no direct comment on improving skills for such things as statistical analysis, business analysis etc, it is mostly focused on the use of information for policy development and evaluation, and being able to research using the internet and 'data mashing'. However this report is significant report and could be used within the Australian Government to inform an Information and Knowledge Agenda.

3.A Uses of Information

There is always discussion around evidence based decision making to this end information is used within government for a range of purposes I have listed a range of uses to give some idea of how all pervasive this is;

- Policy Development
- Policy Evaluation
- Policy modelling
- Fraud detection
- Data matching
- Executive reporting
- Performance reporting
- Process reengineering
- Customer demographics
- Financial reporting
- H.R. reporting
- Activity management
- Research
- Outreach program
- Channel management
- Reporting to government and other agencies
- Reporting to the minister
- Research by academia
- Freedom of information

3.B Sources of Information

The sources of this information are as many and varied as its uses. In no particular order some are:

- Libraries
- Academic research
- Data warehousing including reports and data marts
- Records and Documents repositories

- Content management systems
- Communities of Practice repositories
- Reference material (policies and procedures)
- Discussion groups

However one of the main problems with the sources of information is that staff in various places and organisations have created their own sources which no one else is privy to or can use. This leads to multiple 'truths' rather than the preferred 'single source of truth'.

4. IKM in the Australian Public Service - Future.

So can Information and Knowledge Management (IKM) help the APS? Yes, of course it can. What are its benefits? Well, given the nature of IKM, the benefits are what ever we want them to be. Asking 'what are the benefits' is the wrong question, the first question that should be asked is 'What do we wish to achieve in terms of business outcomes and how can IKM help?'

I have taken the list of questions for discussion and will bring an information and knowledge lens to those questions in an attempt to discuss what might be possible in this future organisation.

Given this, IKM can mean different things in different agencies and in different business contexts. For the APS it can mean:

- Lower costs by preventing people from re-inventing the wheel especially in an organisation spread throughout Australia;
- Eliminate budget deficits caused by repeating the same mistakes;
- Increase contributions by innovating and creating new capabilities;
- Increase customer satisfaction with a better re use of information;
- Lower delivery costs by re-using proven practices;
- Increase engagement quality by collaborating with customers and partnering departments;
- More agile policy delivery;
- 'one source of the truth' and

- Better reporting through out the various reporting lines and to other agencies, the Parliament and the Minister.

Some other drivers for the future include the Gov 2.0 and National Government Information Legal Framework, both of which need quality information.

4. Why is an IKM initiative needed?

As APS stretches its delivery and policy requirements it must be appropriately positioned to support the various types of knowledge workers within the various agencies i.e. with fewer people the systems including information and knowledge management systems need to be correct, fast, accessible and effective;

- There exists a range of IKM tools and techniques for improving information and knowledge management which we are not accessing;
- Internal APS knowledge is diverse, disjointed and hard to access, an IKM initiative would directly address this;
- There is no active APS IKM strategy, mechanism or process built into departmental planning, leading to IKM being thought of as 'bits and pieces' of work, not holistically;
- Symptoms of the 'performance gap' between current practice and 'best in class' are present, e.g. no standard electronic records and documents management, 'cells' of people creating and recreating management information for use locally or within their own agencies, little sharing of good practice, time wasted on searching, tacit knowledge not being codified, and often no 'knowledge assets' creation process;

There exists an opportunity to create a knowledge-enabled, public service that is sustainable with elements elevated to best practice status across the Government. The British Government has set up the "Office of Public Sector Information". Though I believe this doesn't go quite far enough it is certainly a start. There area that needs further effort would be the ability to build a solid skills base, that could support agencies short on IKM skills.

5. So what could a tailored IKM initiative look like for the APS of the future?

With good overall APS governance and the building of a centre of excellence around these information specialities and skills it should be possible to help all agencies upgrade their information management expertise.

Setting up a 'Centre of Excellence', leveraging off agencies which have done a particular IKM job well would help other agencies get going. Known areas of expertise should be brought together to build a capability that is lacking in other agencies, and which could help all agencies improve this capability. It should be noted that I am not advocating just the development of frameworks, policy and procedures, but the setting up of process that would help skill agencies in the various technologies, systems, analysis etc. Examples of this would be:

- Australian Bureau of Statistics has world class statistical analysis skills, and a training program for statistical analysts;
- Commonwealth Rehabilitation Service, has 'Networks of Excellence' which are targeted communities of practice which develop bodies of knowledge around specific medical and rehabilitation issues using both internal and external experts;
- Centrelink has a long running 'Balanced Scorecard' that delivers team level information allowing them to manage their workload in a way that delivers business achievements for the policy agencies;
- FACSIA library has delivered a quality research ability to a number of agencies for many years, including FACSIA, Centrelink and DHS;
- National Archives has a wealth of knowledge around records and documents management which could be extended.

Skills and knowledge around a range of other areas may need to be developed, these could include:

- Business Analysis, particularly in the area of business intelligence information, data integrity, and information management. University of Canberra currently run one of the very few business analysts degrees in the country and the APS should leverage off that program. Work has also

commenced on developing business analysis competencies and these should become generalised across the APS.

Also, it may be possible to build a central team of senior high quality business analysts (BA's) who could be made available to help agencies set up high performing information business analysis teams;

- Data warehousing is a technology that is in fact, counter intuitive to normal ICT Applications systems development. This is demonstrated by the fact that most warehouse projects (both within the APS and industry) do not deliver to customer expectations. There are a number of reasons for this, however there is a small core of people within the APS who could be brought together to help agencies get these critical information/data sources up and running.
- Reporting tools vary from agency to agency, however, it may be possible to pick two or three as generally the best of breed and again develop a core team of experts who can help agencies struggling with implementing reporting.
- Data quality is a continuing battle in all applications systems and data warehouses throughout the service. Again, it should be possible to develop a core of expertise, which can help agencies develop a data integrity program, help them get it going and give ongoing support as necessary.
- Collaboration will be an important factor within the new APS and the use of collaboration software enabling communities of practice and teams to work in a community space will be important. But also, the use of Wiki's to develop policy, cabinet submissions and reports etc., both within and across agencies will be important to enable agile and speedy responses.

5. So what could a tailored IKM initiative deliver to the APS of the future?

- Process improvement, driving efficiency and agility through the ongoing creation of 'knowledge assets' supported by technology platforms that enable excellence in IKM;
- A shift in customer perception of the APS's ability to provide excellent service to the customer base and supporting increased self-service confidence;

- Increased employee engagement, with new IKM tools **and** working practices that support and stimulate involved empowerment and enable better work life balance; and
- Most importantly, improved outcomes for the Australian public as high quality policy and service outcomes are achieved.

6. Culture

The biggest issue involved in any IKM program is managing the change to the culture of the various parts of the APS. IKM is based on a culture of sharing information freely, rather than hoarding the resource as part of 'knowledge is power and I have the knowledge therefore I have the power' thinking.

This must be taken very seriously and a focussed and fully funded Change Program **must** be put in place to support the ongoing work of whatever unit is tasked with getting an IKM initiative up and running.

It will be important that the concept of knowledge and information sharing be built into job specifications, performance management as well as our values statements and long term goals and visions. The value of information and knowledge must be articulated as strongly and clearly as is our commitment to staff and their needs.

7. Language

A part of any culture is the use of language. Our Australian Aborigines have the oldest story based culture in the world, all their stories were passed down without a written language. If we want to connect APS staff to our values and our vision we have to make them simple, honest and easy to remember and repeat.

Our APS values need to be said in simple language, still conveying our message in a manner that is real to our staff. The reason that so many Christians can recite at least some of the '10 Commandments' are they are written and can be repeated in simple and compelling language. The message behind them isn't simple, the way it is conveyed is.

8. The Questions And Relevant Comments

Rather than go into a lot of extra detail, I will comment against each chapter as relevant

Chapter 1 The Australian Government sector today

- 1. Do you think Chapter 1 accurately captures the role of the Australian Public Service?*
- 2. What are the implications of the statistical snapshot, and of employee views and attitudes in Chapter 1 for the future of the APS?*

The role of the APS is correct, what is needed is quality management of the 3 main resources; people, money and information.

Two of the implications of the changing demographic are;

- The loss of knowledge as older staff leave; and
- Changing expectations of the 'Gen Y' staff who expect to be able to use the sorts of tools they use outside, such as the internet, Facebook, Youtube, CoPs, etc.

Both of these, need to be addressed in the long term to ensure that the APS moves forward keeping the knowledge gained over years and using the advanced technological tools that will be required of both its staff and its customers.

Chapter 2 Challenges in the strategic environment

- 3. What are the most important challenges facing the public sector over the next ten years?*
- 4. What are the key implications for how the public sector will need to operate?*

The challenges mentioned are all absolutely true. Technology is discussed, however information is only mentioned in passing. The earlier part of this paper, highlights why I believe that this is a major resource for the APS and must be managed as a major resource. The use of information must drive a significant amount of the technological change, not the other way around, which is most often the case currently.

I absolutely agree that a whole-of-government and an across-APS focus must occur as good information management is extensive and hard work and the technologies are often quite new by comparison to the ICT supporting telecommunications and the current large applications. One of the most important factors is that many large agencies may have the financial wherewithal to undertake a large IKM project, many small ones, which would in fact greatly benefit, have no ability to undertake this type of work.

Information must become as valued an asset as are our people, however there will need to be significant cultural changes to attitudes towards sharing as well as significant investment in cleaning up information making it 'fit for purpose', as well as investment in the correct technologies.

Chapter 3 An aspiration for Australia's public service

5. *What do you think is an appropriate aspiration for the Australian Public Service?*
6. *Do the five key characteristics outlined in Chapter 3 adequately encapsulate what you would expect from a high performing public service?*

The Prime Minister has articulated the aspirations for the APS clearly and succinctly. To support these seven elements there is a need for good information. Many of these information sets have been articulated in '3A Uses of Information'.

In Characteristic 1, it is suggested that values-driven culture is critical, while I absolutely agree with this, the values need to be clearly articulated and two that need to be considered in the context of this paper is:

- Collaborative working; and
- That Information is considered a valued APS asset.

Chapter 4 A values driven culture that retains public trust

7. *Should the APS Values be streamlined? What values do you consider should be included in a revised set of APS values?*
8. *How do we ensure that APS leaders fulfil their responsibilities to promote and uphold the values?*
9. *Do you think the APS engages appropriately and actively with government on an apolitical basis?*
10. *Are further reforms needed to clarify the roles and responsibilities of the APS when dealing with ministerial offices?*

Earlier I referred to the use of language to convey a strong message or to 'tell a story'. The APS values are the concepts that make us what we are, and is how 'we do things around here'. This needs to be said, in a way that is easy to repeat, that we, the leaders can tell a story around and explain why they are important to us. Currently they read like a legal document, they may be factually correct, but can anyone repeat them all word for word? Could they be reworked in a way that makes them easy to remember and connected to the simple story about why each one is there and why they are important. Remember that the 10 Commandments have been around for a very long time.

Again, with respect to this paper, I think paragraphs about the unity of the APS are important, as they highlight the need for being specific about articulating that collaborative working is essential to achieve government outcomes. This way of working is obviously critical with ministerial staff as well.

One of the ways to engender trust when working together is to ensure that information is freely shared and used collaboratively. So, again we get to information being perceived as a valued asset.

Chapter 5 High quality, forward looking and creative policy advice

- 11. How can internal and external collaboration be strengthened to improve policy development and implementation?*
- 12. What should be done to continuously improve the capability of the APS workforce in policy formulation and implementation?*
- 13. What can be done to bring the workforce development approach of the APS up to the level of the best organisations globally?*
- 14. How do you think a stronger culture of innovation can be fostered?*
- 15. What approaches to engaging with risk are most appropriate for the APS to provide high quality, forward looking and creative policy advice?*
- 16. How can agency performance management processes be amended to maximise the focus on the attainment of outcomes?*

As has been stated earlier in this paper, high quality information to be used to understand demographics, customers etc, needs to be developed to support evidence based policy development. This information also needs to be of a high quality and freely available for use as, and, when it is needed. This means the information has been created using good business rules, the source data has a high level of integrity, it is regularly updated and available on the desktop in a form that is easily usable for the relevant users.

Using this information to model scenarios, cost opportunities etc is critical to the development of high quality policy. Using collaborative software to share findings and ideas and develop research papers, cabinet submissions and policy advice is the way to manage this proactively and with agility.

Implementation policy can be developed in the same way, with different aspects examined such as delivery channels, customer support.

One of the critical aspects of any policy development and delivery of service is the clear articulation of what is the expected outcome.

The development of indicators of performance success and key performance indicators is a critical piece of work that should be included in the policy development phase. Unfortunately, that is often not the case, and managers are left trying to understand how to measure success in both the development of the policy and the measurement of the effective delivery of the service.

Staff in these various areas find it easy to measure outputs, and have extreme difficulties in articulating an outcome and what constitutes that outcome and how you measure it. This is an area that needs some serious attention, as poor articulation leads to the 'easy' things being measured.

An extreme example could be 'phone time taken to deal with a customer'. This leads to behaviours that are counter productive, such as finishing the call early so that the customer calls again, which is a new call and measured as such, but now of course there are two calls to deal with.

Closer ties with different parts of academia could help here, with many academics working in this space much more often than do many public servants. Work could be done with these areas in academia that specialise in the relevant fields, to help develop the performance measures early in the policy development phase, test them throughout and then test them against the service delivery model.

Chapter 6 High quality, effective programs and services focused on the needs of citizens

- 17. How do we embed a citizen centred philosophy in all aspects of program and service design and delivery?*
- 18. How can we better bring together service design, delivery and policy formulation processes—within individual programs and across all of government?*
- 19. What options could be pursued to ensure citizens, especially those with higher needs, can access government information and services that they need?*
- 20. How can we ensure performance management frameworks focus on the attainment of outcomes for citizens?*

Much of this has already been addressed in earlier parts of the paper. Certainly the use of quality information and supporting technology will improve this process.

Do not underestimate the need for a cultural change program to be a major driver in this. In the same way the old Department of Social Security talked about 'bennies' (beneficiaries) and the 'new' Centrelink talked about 'customers', the use of language is critical to this cultural change.

Chapter 7 Flexibility and agility

21. *What is the optimal rate of mobility between APS agencies and other parts of the labour market? What could the APS do to encourage and support greater mobility?*
22. *What practical mechanisms could be used to foster a more unified public service culture?*
23. *How could recruitment practices be enhanced within Australian Government entities? What are the strengths of current recruitment processes?*
24. *What are your top three ideas to encourage the pursuit of continuous improvement across the public service?*

The constant sharing of information and working collaboratively across various boundaries with policy development, policy delivery and service delivery encourages staff to think about working in other environments. They are also more competitive for positions in other agencies because of their greater understanding of the workings of different agencies.

Continuous improvement across the service will only come when it is perceived to be not 'scary' and unsafe, but business as usual and exciting. This is a cultural issue and constant change must be the norm. Again, the story must be positive about change. Also, Gen Y's at this time of their lifecycle are keen on moving around and doing something different, so if that doesn't change, then there will be a force within the service who does think this is the normal way to operate.

Chapter 8 Efficiency in all aspects of government operations

25. *How can Australian Government policy departments improve their own efficiency?*
26. *How can Australian Government service delivery agencies improve their own efficiency?*
27. *What mechanisms should be used to systematically improve efficiency across the public service as a whole?*
28. *What skills and capabilities are required to drive efficiency throughout public sector organisations?*

The large computer applications that automated many public service functions have been operating for many years. The

telecommunications systems are in place or soon will be, that enable instant communications. The biggest difference now will be made by enabling the knowledge based worker, where ever they are. By making sure that everyone has the information they need to operate at their fingertips will ensure that decisions, processes and procedures will happen much more quickly.

Many processes could be 'work flowed' moving approvals, correspondence etc around organisations quickly and effectively. Giving service delivery staff quick access to relevant information about their customer and about the services being provided will ensure fast and correct decisions are made.

Easy access to legal information, academic research, internal 'thought pieces', customer demographics, analytical tools, modelling tools, performance reporting, internal reference material (policy and procedures) as well financial and people information would enable quality back office work to support the service delivery arm of an organisation.

Policy development agencies require the same sorts of information to help develop quality policy. The ability to refer to other policy implementations and talk through issues with service delivery via communities of practice, knowledge cafes etc would enrich the development.

Last but not least, the ability of any Australian who is interested in certain policies, to be enabled to add their thoughts and concerns to the mix should not be underestimated. Usually the peak bodies are involved, sometime academia, but sometimes the treasures are elsewhere and by using IKM technologies it may be possible to harvest these gems.

7. Proposal

That consideration be given to the support and appropriate resource allocation to develop an integrated APS wide IKM Framework designed to support the Australian Public Service of the future, with agreed deliverables and priorities to kick start the first phases of this change. Some of which are;

- Awareness raising of the size and scope of the IKM possibilities and use the opportunity to identify and prioritise the Information and Knowledge gaps we currently have in all areas of the APS;

- Develop a range of strategic plans supporting an IKM Framework and encouraging people to become knowledge based workers. These plans would need to be focussed on:
 1. Culture;
 2. People and skills;
 3. Information Management; and
 4. Supporting Technology.

- Identify what are the gaps in;
 1. Culture;
 2. People and skills;
 3. Information Management; and
 4. Supporting Technology.

- IKM techniques and tools training for all relevant staff, creating a set of 'champions' throughout the APS

- Devise and implement an APS Knowledge Asset development policy

Any questions, comments or requests for additional information can be directed to me on 02 62728222 or kate.muir@humanservices.gov.au

Thank you for giving me the opportunity to comment on the future of the APS.

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