



## **Foreword**

When Ed Mayo and Tom Steinberg's '[Power of Information review](#)' was published in 2007 it rapidly became apparent that this was a significant contribution to thinking about the ways in which government has to adapt itself to a world in which most people regularly use the internet.

The creation of the Task Force in 2008 was part of a series of positive responses by Government to the report. Over the last 9 months, the Task Force has attempted to develop further the agenda set out in the report. The recommendations in this report should therefore be read alongside those in the original report on which they build.

The Taskforce brought together a group from government, industry and the third sector who all share a passion for using ICT to enable better public service delivery.

All members have contributed in a personal capacity rather than on behalf of their respective organisations and this independence of approach is reflected in our conclusions.

The group has itself worked largely through web 2.0 tools - communicating as a web group, publishing our progress via a blog and RSS feed, and producing this draft report on a wiki.

We have been able to:

- Demonstrate significant latent capacity in the community for innovative information-based applications through the [ShowUsABetterWay](#) competition;
- Raise further the profile of the Power of Information agenda through engagement with central and local government, industry and civil society;
- Contribute to the public and internal government debates around access to UK geospatial data;
- Build links with people working on similar agendas in other countries for the mutual exchange of ideas and expertise;
- Support the creation of social media guidance for civil servants;
- Examine the usability of key government websites and commission new guidance based on the output of our study;
- Experiment with using modern web publishing tools for data that is currently published using traditional methods;
- Develop a model for an architecture for government websites that better supports content re-use;
- Begin work on the concept of a repository for government information.

We recognise that many people both inside and outside government have been working over several years on projects which provide a sound 'proof of concept' for the use of web 2.0 technologies for public service purposes.

The Taskforce believes it has made a further contribution to this body of work. Yet, we are still some way from being able to assert that the public services are making as full a use as possible of the potential offered by evolving internet technologies.

We believe that with this learning from many sources informing our actions, we have the opportunity now to take some major steps forward in making this part of the mainstream of public service activity.

Our recommendations describe the key actions that we believe Government can take in the short to medium term to realise this opportunity and we look forward positively to the debate and responses that they generate.

*Richard Allan, Taskforce Chair*

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## ***Executive Summary***

This report has been produced shortly after [Lord Carter's interim report on Digital Britain](#). The Taskforce's recommendations affect the things people do with the broadband networks that are the major focus of Digital Britain.

The report calls for action in six areas where the Taskforce believes significant improvements can be made to government's use of digital technologies:

- enhancing Digital Britons' online experience by providing expert help from the public sector online where people seek it;
- creating a capability for the UK public sector to work with both internal and external innovators;
- improving the way government consults with the public;
- freeing up the UK's mapping and address data for use in new services;
- ensuring that public sector information is made as simple as possible for people to find and use;
- building capacity in the UK public sector to take advantage of the opportunities offered by digital technologies.

Millions of people in Britain regularly seek help online and in public about their daily lives. The report explains how the public sector can and should help people online in the places they go to seek help.

In the extended UK public sector, the BBC has a world leading model for innovation in its 'backstage' service which encourages people to innovate in remarkable ways with the BBC's data and services. The report recommends that UK central government should create such a 'backstage' capability to unlock the huge innovation potential of the government's information.

Digital communications technologies clearly offer the potential for new methods of consultation around government policy. The report sets out a set of immediate measures that could be taken to start taking advantage of this potential. The process of producing this report has itself followed this new schema for consultation.

Data and information are the lifeblood of the knowledge economy. The report's recommendations on liberalising non-personal government information would provide an information stimulus if implemented.

The report refers specifically to the need for a more liberal approach to the re-use of mapping and address data in the UK based on the evident demand for this type of information. It makes recommendations for [Ordnance Survey](#), the UK's official mapping agency, to free up their licensing regime in general and to make information available for free, on simple terms, for innovators and the third sector.

If data is to be truly useful for a broad range of innovators it must be easy to obtain and the terms under which it can be used have to be as open and intelligible as possible. The report therefore recommends actions on the cataloguing of public sector information and on government licensing terms, especially in respect of the most common government licensing scheme, [Crown Copyright](#).

Finally, the Taskforce recognises that when mainstreaming any innovation, systemic culture and behaviour change is required. It believes firmly that now is the time for the innovative approaches that it recommends to be brought into the mainstream of UK government. The report therefore calls for action to help the public sector acquire the new skills and practices required to support this.

## Recommendations

In summary, the Taskforce makes the following recommendations:

### Recommendation 1

Public servants should take part in online peer support forums as a matter of course. Public bodies should investigate and publish lists of the major forums in their areas of responsibility and engage with these following a published plan. A cross-governmental list and set of Departmental plans should be published by the Cabinet Office by Q3 2009 with a follow up report on progress in Q1 2010. This builds on the enabling work advised by the Taskforce on the publication of [social media guidance](#) for civil servants.

### Recommendation 2

Public servants will require adequate internet access to take part in social media as part of their job. The Cabinet Office should work with staff involved in setting access rules and defining standard browser capabilities and issue guidance.

### Recommendation 3

Unlock innovation in leading public sector sites using a '[backstage model](#)', a standing open online innovation space allowing the general public and staff to co-create information-based public services. This capability should be a standard element of public information service design. The government should build on the new backstage service for Directgov.

### Recommendation 4

Invest in innovation that directly benefits the public by ensuring that public sector websites spend about as much on innovation as leading knowledge businesses. DirectGov, BusinessLink and NHS Choices should create a combined innovation pot of 10% of their budgets, focussed on improving the public experience of government websites, through outside-in innovation not internal requirements. Some of this money should be used to support development of APIs for data with the greatest demand as demonstrated by 'backstage' communities and the OPSI data unlocking service.

Annual plans on how this £10m innovation pool is to be deployed should be published and agreed by a new Head of Digital Engagement.

### Recommendation 5

To take advantage of the potential of new online techniques to open up the policy dialogue online the government needs to do the following:

- Clear and mandatory standards on accurate tagging and metadata which would allow consultations to be found by the subjects, interests and places they affect as well as by the policy issue
- Breaking down consultation papers from monolithic documents into navigable, searchable, separate points which can be commented upon individually
- Implementing the tools – readily available elsewhere on the internet – which allow people to comment on individual items, to comment on other's comments and to collaborate in developing and improving the content (perhaps through the sort of collective authorship we see on Wikipedia); the publication by DIUS of the [Innovation White Paper](#) and the Cabinet Office

[New Opportunities](#) White Paper in this way are good examples of what can be done without major investment

- Participation by officials in the process in line with the Government's recently published [code of practice](#) on social media, so that the consultation period is one of active dialogue
- Use of the same tools to explain at the end of the consultation period, in the same level of detail, what the Government had decided and why
- Mandatory publication of consultation materials in open, semantic, electronic formats that not only allow the relevant government website to host the material but also allow others to take the material, present it, gather views and feed those back to government in innovative ways.

The government should update the [Code of Practice](#) on Consultation maintained by the Better Regulation Executive in BERR to reflect these principles.

## Recommendation 6

A plan for supporting the change needed in policy development skills to make the most of online participation should be developed by Government Skills by end 2009, with a concomitant training plan from the National School for Government.

## Recommendation 7

It is the Taskforce's view that 'freeing up' geospatial data should be a priority. The Ordnance Survey requires urgent reform. Recent [announcements](#) of cost reductions at the Ordnance Survey point the way to wider reforms. This reform should include at a minimum:

- Basic geographic data such as electoral and administrative boundaries, the location of public buildings, etc should be available for (re)use free of charge to all.
- There should be simple, free access to general mapping and address data for modest levels of use by any user.
- Voluntary and community organisations pursuing public policy objects should benefit from straightforward standard provisions for ensuring access to geospatial data at all levels of use
- Licensing conditions should be simplified and standardised across the board and, for all but the heaviest levels of use, should be on standard terms and conditions and should not depend on the intended use or the intended business model of the user.
- The OpenSpace API, similar to but currently a constrained version of Google Maps, should become the primary delivery point for the Ordnance Survey's services.
- Creation of a freely available single definitive address and postcode available for the UK for (re)use.

## Recommendation 8

- Government should ensure that there is a uniform system of release and licensing applied across all public bodies; individual public bodies should not develop or vary the standard terms for their sector.
- The system should create a 'Crown Commons' style approach, using a highly permissive licensing scheme that is transparent, easy to understand and easy to use, modeled on the 'Click Use' license, subject to the caveats below.
- OPSI, part of the National Archives, should investigate how source code can be handled within the public sector information framework, and look into appropriate licensing terms drawing on best practice in the open source community.
- The Government should report on the options for these three recommendations by end 2009 and if required, statutory measures should be brought forward not later than the 2009/2010

session.

## **Recommendation 9**

OPSI, part of the National Archives, and COI should work on updated guidance on publishing information, including requirements for publication in legislation. Guidance should help information producers publish in a form that is cost-effective, reaches the largest audience and can easily be re-used.

## **Recommendation 10**

Public information should be available at marginal cost, which in practice means for free online. Exceptions to this rule should pass stringent tests to ensure that the national benefit is actually served by charging for information and thus limiting its reuse. OPSI (part of The National Archives) should define and consult publicly upon such tests which they then enforce.

## **Recommendation 11**

Public bodies are often required to publish notices and other information in newspapers, by physical notices or by other means. The same information should now also be published directly to the internet. This will increase the opportunity for those people and businesses affected to see the information, either directly (for example, by search) or by others 'mashing' the information in the ways promoted elsewhere in this report. In doing so, public bodies should follow the OPSI guidance and many may find it cost-effective to use the London Gazette service rather than develop their own systems.

## **Recommendation 12**

OPSI should begin a communications campaign to re-present and improve understanding of the permissive aspects of Crown Copyright along the lines of creative commons by end June 2009. This should be combined with 'permission to scrape' being given over Crown Copyright data, removing any risk of prosecution under the [Computer Misuse Act](#). This might fall under the banner of a 'Crown Commons' brand. OPSI should begin a communications campaign to that end by end June 2009.

## **Recommendation 13**

As the internet changes, so should the way information is published. The taskforce has developed with stakeholders a model to inform online publishing. This breaks out information into several layers with external interfaces at each layer, allowing re-use both of the raw data and the intervening software interfaces. OPSI should develop and further test the model and publish it with a delivery mechanism, implementation plan and explanatory material by end June 2009. It should become the standard to which new systems, or re-implemented versions of existing systems, are implemented from a date determined by the CIO Council.

## **Recommendation 14**

The government should ensure that public information data sets are easy to find and use. The government should create a place or places online where public information can be stored and maintained (a '[repository](#)') or its location and characteristics listed (an online [catalogue](#)). Prototypes should be running in 2009.

## **Recommendation 15**

Stay at the leading edge of customer driven service improvement. The Permanent Secretary for Government Communications should regularly publish best practice and innovation in engaging large number of people online such as [Show Us a Better Way](#), [Dell Ideastorm](#), [Apps for Democracy](#), etc. An initial readout should be published on the Cabinet Office website by Q3 2009.

## **Recommendation 16**

Communities and Local Government should work with local government to develop and adopt a Power of Information [Beacon award](#). The criteria for this award should start with the Taskforce's proposed licensing model and be extended as best practice develops.

## **Recommendation 17**

Government should encourage and assist the development of capability outside government in online empowerment or mutual support for public service outcomes, particularly in the Third Sector. It should also address the issue of those online organisations or people which are delivering clear, highly leveraged social value but which do not have a sustainable funding model. HMT and Cabinet Office, particularly the Office of the Third Sector should bring forward proposals by end June 2009.

## **Recommendation 18**

The Taskforce repeats Steinberg and Mayo's [recommendation 12](#) on resourcing OPSI, a part of National Archives.

*'To ensure that OPSI can regulate the public sector information market effectively, government should review the fit between OPSI's functions and funding, and recommend options that will ensure it is fit for purpose.'*

## **Recommendation 19**

The taskforce endorses the NAO report and urges the government to ensure that the NAO findings are implemented.

## **Recommendation 20**

The Taskforce worked with the COI to produce 'usability' criteria and guidance for central government websites. These criteria should be published with an implementation plan to central government websites. The criteria and guidance should be published as soon as possible with an implementation plan by June 2009. The approach should be extended to the websites of the wider public sector including local government, health and police.

## **Recommendation 21**

The web is developing all the time; so are ideas about how it and public sector information could be used. The Cabinet Office should have a modest fund for leading-edge R&D to continue to test ideas and incubate new capabilities, and it should co-ordinate R&D work in this area elsewhere in the public sector.

## **Recommendation 22**

A new external high level advisory panel should replace the Taskforce, reporting to the Minister for

the Cabinet Office. The Panel should advise Ministers and public servants on the latest developments in the area in the UK and overseas, scrutinise departmental plans and capabilities, set priorities for the Cabinet Office's R&D fund, have a dialogue with the information community inside and outside government and drive and monitor progress in implementing the recommendations set out above. The Panel should work closely with the [Advisory Panel on Public Sector Information](#). It should publish regular reports on the internet about developments and the government's progress. The panel should be established by June 2009.

### **Recommendation 23**

The Government IT Profession initiative - which covers the whole public sector - should specifically develop skills and cultures for IT professionals needed to support the implementation of this report. In particular, skills relating to the web, re-use of information including data mashing and delivering modern web functionality.

### **Recommendation 24**

The Taskforce has commissioned online training material on website usability from COI that can be deployed rapidly at relatively low cost. The Permanent Secretary Government Communications should bring forward a plan to train communications staff in the basics of social media and a modern web presence by Q3 2009. Consideration should be given to adapting and extending this training to public sector leaders and then more widely.

### **Recommendation 25**

The government should bring forward a plan to work with the higher education community on an increased UK capacity and capability for data mashing, including a focal point or virtual centre of excellence. The Cabinet Office should bring forward a plan by Q3 2009.

## Helping people online where they seek help

Britain's thriving online co-operative and empowerment movements are moving into the mainstream. The Taskforce judges that now is an ideal time for public services to work with these movements adding value to both parties. Emerging good practice in public services should grow to become normal activity

### **Public servants taking part in online peer support forums**

*'A small group of mums can reach an audience of hundreds of thousands. They do not need a large organisation with an expensive IT support system or technological expertise. If 30,000 parents were meeting in a park or football stadium to share information and tips about parenting, government would take notice. Citizens are helping each other in online communities, and working towards the same goals as government on a range of issues, from parenting to health and financial management.'*

Hilary Armstrong MP, [Government response](#) to Power of Information Review

Online peer support forums are going from strength to strength. Millions more people are engaging in online peer support forums than at the time of the original Power of Information Report in 2007. One major support network, The Student Room, now has 1.4m unique visitors a month, run by a small business and its own user community with 60 volunteer moderators. Netmums, represented on the Taskforce is growing by up to 20,000 new members a month. In the offline world we cannot think of any UK membership organisations growing this fast.

The Taskforce has encountered a remarkable range of mutual support forums of all sizes for all audiences. These range from: Money Saving Expert (reporting 6.4 million visitors in December alone with 3 million people receiving a weekly email) to the Army Rumour Service (reporting over 340 million page views since 2004 and over 42,000 registered users) the targeted [The Poultry Keeper](#) (which has over 70,000 posts), to the specialist [Noise Abatement Society](#) forum helping people with noise problems (over 3,000 posts), the [Sheffield Forum](#) (over 2 million posts about a City with a population of 0.5m). The forums supporting the [IDEA Communities of Practice](#) and [Rightsnet](#) also show how public sector professionals work together online, in public, on challenging day to day issues. We tend to use the word 'forum' to describe generic types of activity that could be enabled by a bulletin board, a blog, web chat, or an email group amongst others.

The Taskforce has assembled [a list of sites for reference](#). This is simply a representative list compiled from our experience. We believe that a comprehensive search for relevant sites by different government departments and agencies would discover many more examples of potentially useful forums and so should be undertaken as a matter of urgency. Sites should also be given the opportunity to put themselves forward and for people to suggest them. Any list should include a basic audience segmentation for each site.

In the USA [Pew Research reports](#) that:

*'The internet...has now surpassed all other media except television as an outlet for national and international news....For the first time in a Pew survey, more people say they rely mostly on the internet for news than cite newspapers.'*

There is now a compelling case for government to follow their citizen customers and give advice in the places citizens seek it. Peer support forums have now entered the mainstream and should be treated as an important place in which to help citizens.

COI identified a lack of guidance for civil servants as an important barrier to participation in social

media. The Taskforce worked with Ministers and officials to produce [guidance for civil servants to take part in social media](#). This has been supplemented with a manual by the Cabinet Office Government Communications Group. However, an interview with an Online Community Manager, whose job it was to help officials take part in online policy discussions suggested that there are many cultural barriers to be overcome at a personal level for civil servants.

Steinberg and Mayo [recommended that](#)

*'To improve service delivery and communication with the public, the Central Office of Information (COI), in partnership with the Office of Public Sector Information (OPSI), should coordinate the development of experimental partnerships between major departments and user-generated sites in key policy areas, including parenting advice (Department for Education and Skills), services for young people, and healthcare (Department of Health).'*

In pursuit of this recommendation, COI did some useful strategy work to advise public sector managers on how to take decisions about engaging in social media. This is published for the first time here [COI strategy report](#). COI did not find it easy to engage Departments in such experimental partnerships but unearthed some examples in the report.

Steinberg and Mayo also [recommended that](#)

*'To reduce unnecessary duplication of pre-existing user-generated sites, COI should update the guidelines for minimum website standards by December 2007; departments should be strongly advised to consult the operators and users of pre-existing user-generated sites before they build their own versions.'*

This analysis still stands - that in general government should not set up its own support forums. Rather it should go to where the customers are seeking help and provide it there, if customers would welcome it in the context of that forum.

There are a wide range of interventions that could be made. TheStudentRoom.co.uk observed that the nature of intervention needed to be carefully thought through. In the student room case, people go to peer forums to seek advice initially from their peers, rather than from government. But government advisors from a service such as NHS Direct could add real value if a person requiring specific help was referred to them by a forum moderator.

Another site owner felt that in the case of health advice, a specific clinic might work best for their property, and another site owner that call centre advisor experts should simply take part in the discussion online where people were asking for help on technical aspects of benefits. However, some sites clearly would not welcome such intervention.

There is therefore no simple one-size-fits-all model for what would constitute effective intervention in online forums. Rather, it should be for each public service organisation to draw up their own strategy in consultation with the administrators of forums which they have identified as significant for them.

We do also recognise that the landscape of online activity changes rapidly requiring such strategies to be regularly-updated living documents rather than being set in stone at infrequent intervals. Many successful forums are small third sector or entirely volunteer efforts, which cannot be expected to go through an onerous procurement process - the COI should examine how to make it easier for the public sector and informal sites to work together without a stifling procurement overhead .

The Taskforce judges that the moment is right for a firmer push for public servants to engage in peer support forums, with public measurement and reporting and so makes the following recommendation.

### **Recommendation 1**

Public servants should take part in online peer support forums as a matter of course. Public bodies should investigate and publish lists of the major forums in their areas of responsibility and engage with these following a published plan. A cross-governmental list and set of Departmental plans

should be published by the Cabinet Office by Q3 2009 with a follow up report on progress in Q1 2010. This builds on the enabling work advised by the Taskforce on the publication of [social media guidance](#) for civil servants.

## **Access to the Internet at work for public servants**

Public sector workers cannot be expected to be up to date with or exploit the power of information to transform public services if they cannot access the internet at work. The Taskforce viewed a report of survey work done for the Minister for Digital Engagement on access to social media sites in Summer 2008. This showed that large numbers of public sector workers have access to mainstream social media websites blocked, a finding confirmed by a recent [informal survey](#) and market [research in local government](#) by Public Sector Forums.

The Cabinet Office report noted that Departments had different needs and capabilities and said:

*'..while similar criteria are considered, it is clear that departments are coming to different conclusions on access, suggesting they are taking different views of the degree of risk or benefit associated with these types of site. While most departments clearly feel that blocking access is necessary to some degree, they also emphasise that their 'appropriate use' policies or codes of conduct have a key role in governing individual behaviour in this area.*

*'Most policies include a provision for allowing exceptional access to specific sites for individuals that can make a strong case on the basis of business need. In some cases where use is typically blocked or restricted, non-networked PCs are made available for staff to access social media or webmail sites.*

*'Several departments noted that they are currently or will soon review their policy in this area, with some noting that they see the need for more help and guidance for staff beyond that available in the published guidelines for Civil Servants on online participation. Policy ownership resides in the majority of cases with IT (with input from HR, Finance, Communications), though in a few cases the reverse applies.*

*4 departments allow access to all of the sites above as standard across their network.*

*12 department block access to all of them as standard across their network (but several note they will make case-by-case exceptions).*

*14 departments allow access to some; block access to others'*

In the modern world public servants need internet access to do their jobs, in particular to keep up with changing citizen customer behaviours. The Taskforce is concerned that access to narrowly defined 'whitelists' of acceptable websites can act to inhibit innovation. New systems, such as the Cabinet Office Flex system offers a secure browsing environment within which whitelist controls can be rolled back to a minimum. Public servants also need to have access to industry standard client capabilities such as modern browsers and plug ins.

The Taskforce recognises that there are tensions between: the ever changing IT security threat profile, a need to have room to innovate, different HR policies required for different types of organisation and the constantly changing opportunities offered by new web services. One of the biggest challenges is keeping policies in this area up to date and synchronised across an estate as large as the public sector. In order to manage the risks of internet access HR staff and the security authorities need to be in close contact with those who can articulate the benefits.

The Cabinet Office is leading work to examine the issues in this area, which the Taskforce supports. The least burdensome outcome would be a simple common internet access policy fit for the modern era and capable of evolving to cover as many public sector workers as possible. Given the widely differing operational environments of public sector workers (from intelligence analysts to nurses to contact centre workers) this may have to be a small but coherent family of policies.

The Cabinet Office should investigate the issues with staff involved in setting access rules and issue internal guidance. Where necessary Departments should work with [CESG](#) to accredit and deploy secure web browsing technology (already being used in [Flex](#), a government shared ICT service) which would allow a full range of sites to be viewed at full functionality while protecting Government's own systems against the introduction of rogue software ('malware').

### **Recommendation 2**

Public servants will require adequate internet access to take part in social media as part of their job. The Cabinet Office should work with staff involved in setting access rules and defining standard browser capabilities and issue guidance.

## Innovate and co-create with citizens online

Leading organisations are using recent internet developments, including those known as ‘Web2.0’ to work with people in new ways. These developments make it easier, cheaper and faster to create to collaborate, innovate and create new information services.

The Show Us A Better Way Competition demonstrated not only the appetite for innovating with information but that people could respond spontaneously and create new products. The Government has already embraced “co-production” in its strategy for the public services, and the Taskforce believes that there would be significant public value in opening up Government data and websites as platforms for others to develop and innovate further.

### A 'backstage' model for government

The Taskforce endorses the sentiment of this passage from the DIUS White Paper on Innovation:

*'Innovation in public services will be essential to the UK's ability to meet the economic and social challenges of the 21st century....The Government is uniquely placed to drive innovation in public services, through allocating resources and structuring incentives. Major forces such as attitudes to risk, budgeting, audit, performance measurement and recruitment must be aligned to support innovation. Together, and with effective leadership, these will progressively overcome existing cultural and incentive barriers. Those responsible for public service delivery must also learn the lessons of open innovation and adopt innovative solutions from the private and third sectors.'*

Quoted from [DIUS Innovation Nation section 44](#).

The web enables and indeed is enabled by open innovation on a large scale. There is an opportunity for the public sector to work with the web community to drive innovation in public information and web services. The [Show Us A Better Way](#) competition, a simple online call for ideas on reuse of public data attracted 500 entries. One of the UK's and arguably the world's leading examples of information-based open innovation is the BBC service known as '[backstage.bbc.co.uk](#)'. In its [FAQ](#), the BBC explains its backstage model thus:

*“Who is [backstage.bbc.co.uk](#) for?”*

*[backstage.bbc.co.uk](#) is for individual developers and designers to build things using BBC content and anyone who has an idea for how to use BBC content in new ways. It is not for big corporates to play around with. [backstage.bbc.co.uk](#) is for non-commercial use by the little people.*

*[backstage.bbc.co.uk](#) is part of the BBC's wider remit to "build public value" by sharing our content for others to use creatively. How do you "build public value"? One of the ways is through supporting innovation as the [BBC Governors response to the Graf report of BBC online](#) makes clear:*

*"The BBC will support social innovation by encouraging users' efforts to build sites and projects that meet their needs and those of their communities ... The BBC will also be committed to using open standards that will enable users to find and repurpose BBC content in more flexible ways."*

*[backstage.bbc.co.uk](#) aims to promote innovation amongst the design and developer community: if people are able to do interesting, productive things with the content then we'd like to support them. Finally and as a useful by-product of the above, [backstage.bbc.co.uk](#) is an opportunity to identify talent in the online community."*

The Taskforce sees a number of advantages for the public services in adopting this model.

- It would create an ongoing source of innovative ideas for the use of government data, some of which may be rolled back into the principal websites whilst others remain free-standing.
- It has the potential to build stronger working relationships between developers inside and outside government strengthening the capabilities of both parties.
- And it would provide a useful channel for resolving some of the technical issues around access to government data that is made available under the Public Sector Information reuse regime.

The Taskforce has discussed at some length with the government website Directgov the potential for innovation along the lines of [backstage.bbc.co.uk](http://backstage.bbc.co.uk). We understand that Directgov welcomes this initiative, and were pleased to see the recent launch of their first innovation platform - [innovate.direct.gov.uk](http://innovate.direct.gov.uk).

The Taskforce judges that leading public sector sites should create a Government Backstage capability as a joint effort. This will concentrate developer talent and public interest in one place and create a virtual centre of excellence in public sector data mashing. If Government Backstage were to work closely with [BBC Backstage](http://BBC Backstage) there is the potential to create a world class innovation and R&D resource.

### **Recommendation 3**

Unlock innovation in leading public sector sites using a '[backstage model](#)', a standing open online innovation space allowing the general public and staff to co-create information-based public services. This capability should be a standard element of public information service design. The government should build on the new backstage service for Directgov.

### ***Innovation budget***

The Taskforce judges that successful leading high tech businesses will spend at least 10% of their budget on innovation, data reported by [Booz & Co](#) suggests as much as 13.6% for software and internet companies. Given the speed at which the internet and people's use of it changes the government's leading web sites need to keep pace with innovation online. The rapid rise of social networking sites demonstrates how innovation can rapidly change people's communication habits. With over 60% of the population online and American [studies showing](#) that more people use the internet for news than the traditional press, it is particularly important for government sites to innovate themselves, given their central role in communications.

The Taskforce is making a range of recommendations that will require leading government sites to innovate. These sites are in the Taskforce's view adequately funded to innovate but by demonstrating more transparency in how they do so would aid the innovation process. The Taskforce would like to see explicit provision made for investment in innovation, plans for such investment published and some central co-ordination to ensure that this effort is pooled and not duplicative.

One of the benefits of Show Us A Better Way was to see what information and services people wanted. The government should use their experience of running a 'backstage' service to get a sense of the relative priority of different areas. This should then be linked to funding API development for the data and services of greatest potential utility. Requests submitted through the [data unlocking service created by OPSI](#), part of the National Archives, in response to a [recommendation in the original Power of Information report](#) should also help guide this prioritisation..

### **Recommendation 4**

Invest in innovation that directly benefits the public by ensuring that public sector websites spend about as much on innovation as leading knowledge businesses. DirectGov, BusinessLink and NHS Choices should create a combined innovation pot of 10% of their budgets, focussed on improving the public experience of government websites, through outside-in innovation not internal requirements. Some of this money should be used to support development of APIs for data with the greatest demand

as demonstrated by 'backstage' communities and the OPSI data unlocking service.

Annual plans on how this £10m innovation pool is to be deployed should be published and agreed by a new Head of Digital Engagement.

## Open up the policy dialogue online

The public services can break out of the traditional challenge/response model of consultation by using the latest online tools. Consultations should be presented on Departmental websites in a format and using tools that allow real participation. An agenda to achieve this would include the following:

### ***Opening up an online policy dialogue***

The Taskforce judges that the interactive technologies that have been the subject of much of its work also provide a good platform for engagement in policy discussions. Formal consultations by the public services essentially present information for comment on the web. If this information is made easier to re-use, the Taskforce judges that consultations will reach more people in new ways. It is clear from discussions with HMSO that the online distribution of government consultation 'documents' exceeds by orders of magnitude the distribution of printed copies. If the main means of distribution is digital, then the opportunity to take a digitally native approach should be seized.

Whilst this topic was not explicitly covered in the original Power of Information report recommendations, we believe that is worth setting out here thinking that has developed over the last year. The Taskforce recognises that digital technologies allow for many innovative forms of engagement beyond web-based commentable formats but believes that getting the web formats right is an important next step.

There is excellent practice in opening up the policy dialogue in the UK upon which to build, such as [Downing Street ePetitions](#), [CommentOnThis](#), the [Hansard Society eDemocracy programme](#) and the new [innovation platform](#) at DIUS, which is hosting this report. The Taskforce has worked closely with 'TellThemWhatYouThink' which scrapes many government consultations into one place for free, to understand the technical obstacles and opportunities. The Taskforce has also followed the work of [MySociety](#) in the UK and the [Sunlight Foundation](#) in the USA on transparency and data publication.

The original Power of Information report was one of the first to be re-worked and presented on [CommentOnThis](#) as an experiment. CommentOnThis was an early innovator in reworking government consultation documents online so that they can be used more easily. More recently a team of [civic bloggers](#) in Birmingham has translated and repurposed Birmingham's 'Big City Plan' on the web in [Big City Plan Talk](#). This Taskforce report was presented in 'beta' mode for comment and review by the online community before being finalised, generating hundreds of comments which were reflected in the final version.

These technical developments could improve the effectiveness of policy development in consultation, but will require new skills amongst policy makers and communicators. A plan for supporting the change needed in policy development skills should be developed by Government Skills by end 2009, with a concomitant training plan from the National School for Government.

The Government's Code of Practice on consultation was [recently updated](#). It provides the right hooks for online consultation but the code is generic to all methods of consulting people.

*'Thought should also be given to alternative versions of consultation documents which could be used to reach a wider audience...and to alternative methods of consultation. Guidance on methods to support formal consultation exercises to help reach specific groups and sectors (regional, public meetings, online tools, focus groups, etc.) is available.'*

*'Consultation exercises that allow consultees to answer questions directly online can help reduce the burden of consultation for those with the technology to participate. However, the bureaucracy involved in registering (e.g. to obtain a username and password) should be kept to a minimum.'*

Guidance reflecting the Taskforce's views and signposts to help could either be added to the code or placed alongside it. The Taskforce is encouraged that this is an area that the [Central Office of Information](#) is examining in some detail.

### **Recommendation 5**

To take advantage of the potential of new online techniques to open up the policy dialogue online the government needs to do the following:

- Clear and mandatory standards on accurate tagging and metadata which would allow consultations to be found by the subjects, interests and places they affect as well as by the policy issue
- Breaking down consultation papers from monolithic documents into navigable, searchable, separate points which can be commented upon individually
- Implementing the tools – readily available elsewhere on the internet – which allow people to comment on individual items, to comment on other's comments and to collaborate in developing and improving the content (perhaps through the sort of collective authorship we see on Wikipedia); the publication by DIUS of the [Innovation White Paper](#) and the Cabinet Office [New Opportunities](#) White Paper in this way are good examples of what can be done without major investment
- Participation by officials in the process in line with the Government's recently published [code of practice](#) on social media, so that the consultation period is one of active dialogue
- Use of the same tools to explain at the end of the consultation period, in the same level of detail, what the Government had decided and why
- Mandatory publication of consultation materials in open, semantic, electronic formats that not only allow the relevant government website to host the material but also allow others to take the material, present it, gather views and feed those back to government in innovative ways.

The government should update the [Code of Practice](#) on Consultation maintained by the Better Regulation Executive in BERR to reflect these principles.

### **Recommendation 6**

A plan for supporting the change needed in policy development skills to make the most of online participation should be developed by Government Skills by end 2009, with a concomitant training plan from the National School for Government.

## Reform geospatial data

The importance of geospatial data (digital maps) for public good and economic prosperity was identified by Steinberg and Mayo in 2007. However, for both innovators and the general public, the situation remains disappointingly unchanged. About one third of the entries to the Show Us A Better Way competition required geospatial data and provided a clear demonstration to the Taskforce of the importance of updating current policy on geospatial information. Various barriers exist to its use, particularly licensing, cost and timely availability.

### ***Maps and geospatial information***

The Ordnance Survey is fundamental to delivering the power of information for the economy and society. The Taskforce has contributed to the Government's Trading Funds Assessment. This Assessment should be radical and fundamental.

Maps are an easy to understand way of [presenting complex information](#). However, until recently creating tools for presenting information on maps was very difficult and expensive to do. This is no longer the case.

Since around the time of the launch of online mapping services such as Multimap and Google maps with subsequent opening of [APIs](#) for easy reuse there has been a steady decline in the complexity and cost of development. It is now possible for people to create [innovative mapping services](#) in their spare time on a cheap laptop. This should be a tremendous spur for innovation in all sectors in the UK, as it has been in countries like the USA, Canada and Australia which have liberal public information regimes.

The Taskforce has been impressed by the extent to which access to geospatial data has been a recurrent theme during its activities. For example, the [Show Us A Better Way](#) competition had around 500 entries and of these over one third were for ideas around maps and location. It is possible to speculate why this is: perhaps people want 'government' to present a simple, 'smart face' based on location and service; perhaps they want to plan how to get to the hospital or the quickest route to school.

There are two components that are needed to make location aware services:

- Where the user is interested in; and
- What the area is like.

Whilst GPS devices are becoming more common, the universal key to location is postcode. The government should create a freely available single definitive address and postcode database available for the UK. Once created it should be made freely available for (re)use and maintained by the Ordnance Survey, Royal Mail and Local Government. This could be seeded by [the census](#).

The public sector and associated bodies contains several rich geospatial data sets: flood information in the Environment Agency; demographic information in [ONS](#); location of school, hospitals and other public buildings; transport information; etc. However, the jewel in the Crown's geospatial data is the information in [Ordnance Survey](#). For the reasons set out below, Ordnance Survey's information is underpins almost all public sector geospatial information.

In the [Ordnance Survey](#) the British Public have very high quality maps with universal coverage and rapid incorporation of changes but there seemed to be an unusual number of barriers to society and the economy making the best use of this service. There is a high demand for map-based public sector information services. But the complex and legalistic licensing and charging regime offered by the Ordnance Survey is acting as a barrier, both real and perceived, to innovation in this area (see [WhoOwnsScotland case study](#)).

The Taskforce recognises that some progress has been made with the creation of [OpenSpace](#) in response to a [recommendation in the original Power of Information Report](#). However, the force of findings of the Transport, Local Government and the Regions Committee's report into Ordnance Survey in 2002 still hold true:

*“the dual role of OS as a public service provider and a commercial organisation; the boundaries between OS’s operations and those of its licensed partners; the difficulties caused in pricing and copyright negotiations by OS’s dominant position in the market; and the availability and cost of OS data.”*

The importance of the information held by the trading funds has been highlighted repeatedly over the years. This has been reinforced in recent times by the original 2007 [Power of Information report](#), the 2008 Communities and Local Government report [Place Matters: the Location Strategy for the United Kingdom](#), the work of [Advisory Panel on Public Sector Information](#), the 2006 Office of Fair Trading [Commercial Use of Public Information \(CUPI\) study](#) and a 2008 report by [Cambridge economists](#) commissioned by BERR and HM Treasury. [Research by Oxera](#) for the Ordnance Survey suggests that their information alone underpins 12-20% of economic activity. While the points in this section can be generalised for all government information businesses e.g. other trading funds or the Environment Agency, both the scale of the prize and of the change needed create a focus on Ordnance Survey.

However, the current access regime is aimed at maximising the average return on capital for a single data business, not the overall welfare of the UK. Economic theory generally holds that maximum welfare is generated from charging at marginal cost, but the Ordnance Survey charges out at average cost as part of its Trading Fund approach. Analysis by Cambridge University suggests that current pricing directly reduces the size of the UK economy by £190m a year, in a sector that has been growing at an average rate of 9% a year. If the impact found by Oxera is true then this figure will be much higher.

The Taskforce spent some time looking at the issue of [crime mapping](#) which has excited much interest over recent months. We were struck that in common with other public sector organisations, the Metropolitan Police chose to implement a [service based upon Google Maps](#) rather than any directly-sourced Ordnance Survey product.

The Taskforce followed the [interesting debate](#) that was generated around the use of data which has been 'derived' from Ordnance Survey maps. Derived data can be difficult to define but, in the context of Ordnance Survey, arguably contains any information that has been created by reference to a map including: electoral regions, geo-tagged performance information and the location of public buildings. Ordnance Survey claim copyright in derived data. This means that use of other online mapping services may be [challenged and discouraged](#).

At the same time Ordnance Survey's own [online mapping service](#) is restricted to charitable/hobbyist use. This leaves risk averse public bodies with no 'safe' way to create innovative portals like that at [Redbridge](#).

The Taskforce judges that technological advances in delivery increase the distortion in the public service delivery and economic activity through the current charging and licensing regime. For example:

- *Who runs local services* - The ability to discover easily administrative boundaries is essential for democracy. At present these are [held by the Ordnance Survey](#) and cannot be presented free at the point of use to the public in a form they can reuse. For example, despite the fact that electoral areas are set down in statute, the Ordnance Survey hold the copyright to displaying the regions on a map.
- *Finding public services* - Bulk [information about schools](#) has recently [been made available](#). It does not contain precise locations provided to the Ordnance Survey by the schools because of perceived problems with licensing.

- *Crime Mapping* - Crime Maps were announced by the Home Secretary in the July 2007 [Crime Strategy](#). Inspired by the Taskforce's [crime map mock ups](#), some forces were looking at a Google Maps interface. Ordnance Survey claimed that this would [breach their license](#) but don't (at date of writing) allow public sector use of [Openspace](#).
- *Census information* - The census provides high quality local information. Despite the census areas being original work, licensing concerns have stopped the ONS providing an online geospatial interface to their data
- *Local Authority information* - one large local authority expressed bewilderment to the Taskforce that the location data for its own street furniture seemed to be owned by the Ordnance Survey. The Ordnance Survey often claims derived copyright in public service locations, often despite the original information coming from other public bodies.

This is not new analysis. The importance of geospatial data was identified by Steinberg and Mayo in 2007 but for users, the situation remains unchanged. There is now a pressing need for reform at the Ordnance Survey. Shareholder Executive and HM Treasury are currently undertaking a [review](#) of the trading fund business model. They should seize the opportunity to recast the Ordnance Survey as a mapping agency for the 21st Century. Technological advances have shifted the fundamentals of the traditional Ordnance Survey business model and there is a real risk that it will find itself an anachronism as it is outpaced by more open alternatives such as [Open Street Map](#), supported by cheap [technology to support map-making](#).

However, there is no such thing as a free lunch. A substantial shift towards distributing data at marginal cost will not be achievable without finding a new funding model and the Assessment should consider the effect of funding on business incentives.

### **Recommendation 7**

It is the Taskforce's view that 'freeing up' geospatial data should be a priority. The Ordnance Survey requires urgent reform. Recent [announcements](#) of cost reductions at the Ordnance Survey point the way to wider reforms. This reform should include at a minimum:

- Basic geographic data such as electoral and administrative boundaries, the location of public buildings, etc should be available for (re)use free of charge to all.
- There should be simple, free access to general mapping and address data for modest levels of use by any user.
- Voluntary and community organisations pursuing public policy objects should benefit from straightforward standard provisions for ensuring access to geospatial data at all levels of use
- licensing conditions should be simplified and standardised across the board and, for all but the heaviest levels of use, should be on standard terms and conditions and should not depend on the intended use or the intended business model of the user.
- The OpenSpace API, similar to but currently a constrained version of Google Maps, should become the primary delivery point for the Ordnance Survey's services.
- Creation of a freely available single definitive address and postcode available for the UK for (re)use.

## Modernise data publishing and reuse

The Taskforce found that recent developments on the web have increased the potential for reusing public information to improve public service outcomes and create new businesses. How information is published and licensed for re-use is central to these benefits being realised. Although the core regime for public sector information in the UK works, non-personal public information held by, for example, the police, health bodies and local authorities is often not available. This is bad for democratic expression, the economy and citizen customers. Further reform and better communication to potential reusers would increase the national benefit

### **Right of Re-Use**

#### ***Consistent, comprehensible rights to reuse information from public bodies***

*'..to protect individual liberty we should have the freest possible flow of information between government and the people...Public information does not belong to Government, it belongs to the public on whose behalf government is conducted.'*

Gordon Brown, Prime Minister, [Liberty Speech](#) 29 October 2007

*'..Information maintained by the Federal Government is a national asset. ..Executive departments and agencies should harness new technologies to put information about their operations and decisions online and readily available to the public.'*

President Barack Obama, [Presidential Memorandum](#) 21 January 2009

Yochai Benkler put the economic case in favour of this approach in the [Wealth of Networks](#). It has since been expanded on in [Government and the Invisible Hand](#). [MySociety](#) in the UK and the [Sunlight Foundation](#) in the United States of America demonstrate practical applications.

The entries to the Show Us a Better Way competition run by the Taskforce illustrated many new ways of reusing public information to support or enhance public services. The Taskforce was pleased to see a similar exercise developed in parallel in the US by [Apps for Democracy](#), which generated further good ideas. However, much of the information innovators sought in the UK was held not by central government but by organisations in the wider public sector - particularly local authorities, police forces, schools, the Post Office and the National Health Service. This information is not easy to access, impeding innovation, economic activity and democratic expression.

There are two inter-related issues: consistency of licensing; and availability of information.

#### **Consistency of licensing**

For information held by central government the provisions of Crown Copyright apply. Crown Copyright is often misunderstood, and we make recommendation on that [elsewhere in the report](#). But Crown Copyright has the advantage of being a consistent framework for licensing developed by experts after widespread consultation. Public bodies that are not part of central government are not covered by Crown Copyright by default. Instead there are a wide range of copyright, licensing and re-use rules for published information.

There are significant variations in licensing even within the same part of the public sector. For instance, while working with the Home Office on crime mapping, the Taskforce found ['dead end' copyright notices on some police websites](#) (e.g. Northants) with no apparent provision for reuse, and [more permissive statements on others](#) (e.g. the Metropolitan Police). So a potential reuser of crime information might face over forty different copyright policies for the different forces.

This inhibits innovation, reuse and debate of vital public information such as crime statistics.

Inconsistency in licensing is a particular inhibitor of economic activity - SMEs seeking to reuse the information as part of a business need unambiguous intellectual property clearance - several complained to the Taskforce. Clear re-use policies can also be important for people seeking to re-use public information to lobby public bodies for better public services.

Individual police forces, hospitals, schools and councils can each set their own copyright policy on the information they publish. A [survey by PSI Consulting](#) for the [Advisory Panel on Public Sector Information](#) revealed a poor state of compliance with the Re-Use of Public Sector Information Regulations - most Local Authorities not having even basic reuse policies. Our experience in talking with data owners is that copyright policy often arises not from a detailed assessment of the different options but from best efforts by staff who lack access to expert advice or effective guidance. One typical response from a senior local government officer was:

*'I spoke with the web manager – she said she put the © symbol on when the website was published some years ago because she thought that we had better have something just in case. She isn't a copyright expert after all.'*

There are contrasting examples of good practice: Essex and Warwickshire Councils for instance have signing up to the OPSI [Information Fair Trader Scheme](#). We make recommendations elsewhere about how good practice in local government can be encouraged.

Another grey area which has been drawn to our attention is that computer source code created by individuals and organisations in the public sector as part of their public task may also be a valuable information asset. This is generally not considered within the framework of 'Public Sector Information' at present leading to uncertainty over licensing terms and objectives.

As more code is likely to be generated as government adopts web 2.0 practices, it would be timely to use the expertise of OPSI, part of the National Archives, to investigate how this can be handled within the public sector information framework, and to look into appropriate licensing terms drawing on best practice in the open source community.

### **Availability of information**

Inconsistent licensing and reuse policies reflects an historically weak policy on information release in the wider public sector. This has been due to limitations in the European Directive on the Re-use of Public Sector Information, which as transposed by the UK allows public sector bodies such as the police or health authorities to opt out of making their information available for re-use.. The Advisory Panel on Public Sector Information, in its [letter to Michael Wills](#), the Minister for public information at the Ministry of Justice, said:

*'The availability of PSI from UK Public Sector Bodies (PSBs) that can be used for wider purposes is not mandatory in the Directive or the UK Regulations. This ensures that inconvenient requests to use PSI can simply be parked. We believe that some form of guaranteed right of access and use (subject to limited exceptions, such as personal information) is essential to encourage the widespread exploitation of PSI. This need not be expensive since – as we argue in the report – many potential users would take the responsibility for adding value to information provided in an 'as is' state.'*

The Directive does not prevent member state governments going beyond its provisions to apply reuse rules more widely. Indeed the Taskforce understands that now the Commission would encourage governments to do so. The Taskforce judges that there is a case for the government to do so in the UK.

We have also been concerned to find some examples where information of great potential value for the achievement of public policy objectives is not available for re-use. Departments are not always operating within the government's policy framework, which says that core information is made available for re-use free of charge, including for commercial purposes. This appears to be a

particularly significant issue in the transport sector where services are run by private operators. Public transport operators, local authorities, regional Travelines and Transport Direct are all involved in creating and aggregating transport data. Significant sums of public money are being spent on this data yet complex rights issues appear to be limiting wider re-use. We found that the [National Public Transport Data Repository](#), described itself as 'Crown Copyright'. However, investigations showed this database is not actually government data and that the NPTDR charges significant fees for use.

The National Public Transport Access Node ([NaPTAN](#)) database, of the bus stops, coach stations, airports, ferry terminals etc and the related [National Public Transport Gazetteer](#), a topographic database of towns and settlements, both largely originate from public sector information, but are not freely available for commercial re-use. The Taskforce has found it hard to reconcile these arrangements with the Government's overall licensing policy.

In order to deliver the Prime Minister's vision set out in his Liberty speech, the Taskforce judges that there should be a presumption in favour of information which has been created by public sector bodies being available for re-use. We would also like to see clear and consistent copyright and licensing rules applied to make it easy to work with data from multiple sources in the public sector. These rules should be communicated in a simple way to both potential information users and the people who run public sector websites. This would be a radical extension of easy information reuse, stimulating innovation, economic activity and holding public bodies better to account for the services they deliver.

### **Recommendation 8**

- Government should ensure that there is a uniform system of release and licensing applied across all public bodies; individual public bodies should not develop or vary the standard terms for their sector.
- The system should create a 'Crown Commons' style approach, using a highly permissive licensing scheme that is transparent, easy to understand and easy to use, modeled on the 'Click Use' license, subject to the caveats below.
- OPSI, part of the National Archives, should investigate how source code can be handled within the public sector information framework, and look into appropriate licensing terms drawing on best practice in the open source community.
- The Government should report on the options for these three recommendations by end 2009 and if required, statutory measures should be brought forward not later than the 2009/2010 session.

### ***Embedding Best Practice***

It is common for UK legislation to contain within it a statutory duty to publish defined items of information. These references vary widely from instructions to publish in specific journals such as the [London Gazette](#) through to simple instructions that something must be produced. Publishing technology has overtaken these instructions in legislation. Just as the phrase 'in writing' has been overtaken. There is an opportunity to modernise the way information is published which would both be more cost-effective and allow the information to be more easily used across multiple channels, thereby increasing the likelihood of it reaching relevant audiences.

The Taskforce has been pleased to see OPSI put the London Gazette online with sophisticated data feeds making information published there accessible to a far wider audience than ever before. We understand that this work is a world leading demonstration of publishing for the semantic web by a government. We have also looked at the way in which government publicises its job vacancies as an example of an area which could benefit from a smart application of new technology. We believe that OPSI, working with COI is well placed to issue guidance on best practice for the evolving menu of choices that public bodies can use for publishing public information.

Where there is a statutory requirement to publish 'notices' or other information we consider that it

would always have been Parliament's intent to ensure that the information reached all the relevant people. So, in addition, if necessary, to publishing in the form specified by statute, public bodies should publish the same information on the internet in a manner specified by The National Archives (OPSI) so that it is searchable, scrapable, and provides a structured feed. Many bodies may find it cost-effective to use the London Gazette service.

### **Recommendation 9**

OPSI, part of the National Archives, and COI should work on updated guidance on publishing information, including requirements for publication in legislation. Guidance should help information producers publish in a form that is cost-effective, reaches the largest audience and can easily be re-used.

### **Recommendation 10**

Public information should be available at marginal cost, which in practice means for free online. Exceptions to this rule should pass stringent tests to ensure that the national benefit is actually served by charging for information and thus limiting its reuse. OPSI (part of The National Archives) should define and consult publicly upon such tests which they then enforce.

### **Recommendation 11**

Public bodies are often required to publish notices and other information in newspapers, by physical notices or by other means. The same information should now also be published directly to the internet. This will increase the opportunity for those people and businesses affected to see the information, either directly (for example, by search) or by others 'mashing' the information in the ways promoted elsewhere in this report. In doing so, public bodies should follow the OPSI guidance and many may find it cost-effective to use the London Gazette service rather than develop their own systems.

## **Crown Copyright**

When the public sector publishes information people should understand that it is intended for re-use. Action is required to improve understanding of [Crown Copyright](#), which the Taskforce found to be mis-understood by creators and re-users of data. Crown Copyright, despite its historic name, is designed to encourage re-use in the majority of cases yet the Taskforce found little appreciation of this. There were even suggestions that it was deterring potential re-users.

The use of symbols within [creative commons](#) is helpful in making the scheme intelligible to a broad range of non-expert users. OPSI may wish to give consideration to how government licensing could benefit from a greater use of symbols and other graphical means of conveying licensing information – perhaps the creation of a 'Crown Commons' branded license.

### **Recommendation 12**

OPSI should begin a communications campaign to re-present and improve understanding of the permissive aspects of Crown Copyright along the lines of creative commons by end June 2009. This should be combined with 'permission to scrape' being given over Crown Copyright data, removing any risk of prosecution under the [Computer Misuse Act](#). This might fall under the banner of a 'Crown Commons' brand. OPSI should begin a communications campaign to that end by end June 2009.

## **Modernising information publishing**

*"In the twenty-first century, information is the force powering our democracy and our economy. Both the private and the public sector increasingly rely on information and knowledge, and create value through their ability to manage these valuable assets. Successful societies and economies in the future will depend on how well they enable*

*information to be appropriately shared"*

Sir Gus O'Donnell Cabinet Secretary in '[Information matters](#): building government's capability in managing knowledge and information'

The public sector produces very large quantities of information for which the web has become a critical distribution channel. Websites have changed a great deal in recent years. Successful sites have become data systems that deliver a service to the customer in many different places by allowing reuse of information. The government's use of the web is about more than the application of a set of communication tools such as blogs and wikis. The web has an architecture based on resources and links. This enables it to be a highly effective platform for data. Some of the most successful online tools work well because they are designed and engineered in keeping with this architecture of the web. Examples include the photo sharing website, [Flickr](#), and the social networking service, [Twitter](#). These services separate data from presentation and provide separate [APIs](#). These APIs make the service more useful and help drive traffic to the site.

Generalising this, a person may be looking at a company's product information on the company's own website or seeing it embedded in a widget in someone else's site or blog. For example a person might have a community website containing feeds of information from say the BBC for traffic reports for that area or a widget from a bookstore offering books relevant to that area or a feed of planning applications from their local authority. The information from the bookstore or the BBC or the local authority would be the same if you went to their own sites, it is being re-presented automatically in a third party location. More people will see the information if it is on more sites.

The government web estate needs to move far closer to conforming with "The [Architecture of the World Wide Web](#)" (2004 ) or Tom Coates [nine point plan](#) in "native to a web of data" (2006). The world has moved from a controlled world, with a relatively small number of publishers selecting who and what gets published, to a world of massively democratised and decentralised publishing on the web. Web 2.0 tools such as blogs, wikis and twitter are tools at the far end of this trend. Anyone can say anything about anything, at relatively little or no cost.

These developments have led to different information structures for websites that provide and receive information. The Office for National Statistics is consulting on the use of a new model for access to the 2011 census data involving an interface to allow reusers to get at the underlying de-personalised data, rather than have to go through the ONS own top-level website (see [consultation here](#)). Their Chief Technology Officer reports:

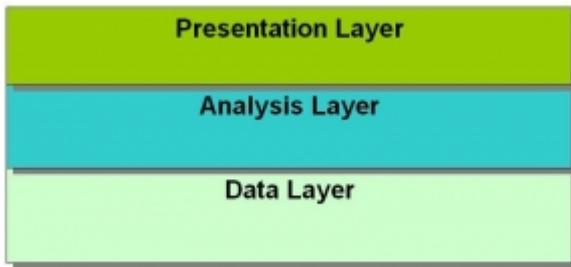
*'ONS is developing a data explorer that will itself be founded on an API which I hope will be published. It will be capable of operating across all ONS outputs, and so is not limited to our plans for the next Census (we hope to have it out there, and through a few releases before we reach Census outputs)'*

Such new structures enable easy reuse of information by third parties. The Taskforce discussed on its blog a new information model for public sector websites to design in reuse of information.

### **Designing in reuse**

This issue is [discussed in detail on the Taskforce blog](#).

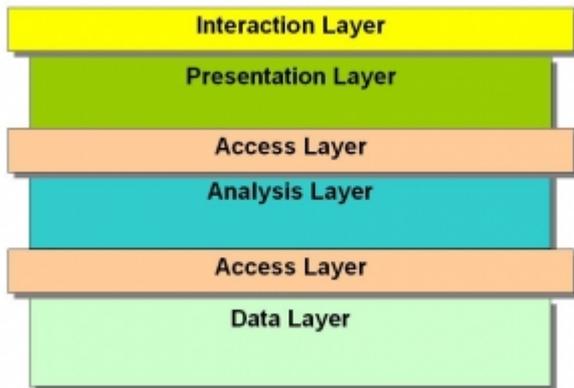
### **Diagram 1 - the 'traditional approach'**



The emphasis of much web development to date has been on the presentation of the data to the public. The assumption was that a particular website would be the unique interface to a particular set of data. This meant that little or no thought might have been given to how anyone else would use the data set in question.

Sometimes the data and any analysis of it could be unpicked from such a site but in many instances this would be extremely difficult.

**Diagram 2 - a Power of Information model**



Thinking has moved on over recent years with a developing understanding of the importance of separating data from its presentation. If nothing else, this allows for simpler changes to the presentation layer as, for example, websites are redesigned.

**PRESENTATION LAYER** - the public-facing front end, typically a set of web pages

**ACCESS LAYER** - all the information needed to access the data, including technical, legal and commercial aspects

**ANALYSIS LAYER** - any form of interpretation of the raw data, typically for summary presentation

**ACCESS LAYER** - all the information needed to access the data, including technical, legal and commercial aspects

**DATA LAYER** - the raw data sets

The Taskforce judges that to realise the power of much public information a different approach is needed to the way public data sets are treated when published on the web. There is a need for several access layers to the data. These layers must address all the issues that are necessary to enable use of the data. These typically include technical issues such as file formats, intellectual property issues such as copyright, and commercial issues such as pricing where applicable. The access layer is discussed in [more detail here](#). Access to data allows many other actors to create their own analyses of it. A further Access Layer could allow reuse of the output of the analysis activity. This must again address any

technical, intellectual property and commercial issues. With the Access Layers in place there is scope for multiple web presentations of the data. Additional value can be generated through the ability to interact with a community around the data.

The full realisation of the power of the information is realised when all layers are in place with the architecture designed to offer opportunities for interaction.

### **Recommendation 13**

As the internet changes, so should the way information is published. The taskforce has developed with stakeholders a model to inform online publishing. This breaks out information into several layers with external interfaces at each layer, allowing re-use both of the raw data and the intervening software interfaces. OPSI should develop and further test the model and publish it with a delivery mechanism, implementation plan and explanatory material by end June 2009. It should become the standard to which new systems, or re-implemented versions of existing systems, are implemented from a date determined by the CIO Council.

## ***Finding public information for reuse***

### ***Large scale publishing of public information***

Public information distributed across thousands of websites is expensive or time consuming to gather for reuse. The cost can be so high that little or no reuse occurs. The Show Us a Better Way competition revealed this to be a problem when people seek information about complex public service choices. One of the winning entries, [School Guru](#) demonstrates the scale of the challenge when choosing a school. Taskforce members with experience of building large mash ups identified a high search and acquisition cost as a major barrier to innovation in the reuse of data.

Where information is presented in one place it makes it much easier to reuse. The District of Columbia in the USA provides a vivid example of aggregating data for reuse in its [data catalogue](#). Their Chief Technology Officer has pulled together all of the District's major data sets onto one web page and provided the data for free as a choice of feeds and downloads. This makes it very easy for people to use information in a way that suits them. Using modern techniques and storage it is relatively easy and inexpensive for government to aggregate performance and other data as it is produced. And then make it freely available for re-use in virtual or physical data repositories.

Professor Nigel Shadbolt of the University of Southampton referred the Taskforce to use of [data repositories in the academic sector](#) to aggregate resources for research. The [Open Knowledge Foundation](#) held a useful [workshop](#) with the Taskforce on finding and re-using information. The workshop discussed the use of data catalogues which point people to where information can be found, such as the [Comprehensive Knowledge Archive Network](#) (CKAN). The workshop demonstrated that finding public sector information is not straightforward and requires a detailed knowledge of how government works. The OPSI [Public Sector Information Unlocking Service](#), although welcome is only intended to address part of the way to solving this problem.

The challenge of ensuring information is discoverable and remains available over time will be met by a combination of catalogues and physical data repositories. Examples of each already exist across the public sector in the information management strategies of individual organisations. There are initiatives that aim to bring some consistency such as the [Information Asset Register](#) overseen by OPSI, part of the National Archives. Further information on information asset registers can be found in a [paper produced for the ePSIplus network](#). However, in spite of these efforts, significant challenges remain for potential re-users, who may not have detailed knowledge of the structures of government, in finding and understanding relevant and useful information sources.

The Taskforce recommends that the government build on this existing work by establishing a public

sector information repository and catalogue function based around the Office of Public Sector Information, part of the National Archives. OPSI has the expertise in modern information publishing and, as an offshoot of National Archives, can take a long term view of custodianship. We understand that officials in OPSI have already sketched out the architecture to deliver such a service at minimal expense.

The Taskforce is pleased that the pre budget report contains a commitment from Communities and Local Government (CLG) to move forward in publishing its performance data obtained for the Comprehensive Performance Assessment (CPA). If this performance data were to be published in a well structured way, it should be possible to produce a map of public services to help inform people's choices.

#### **Recommendation 14**

The government should ensure that public information data sets are easy to find and use. The government should create a place or places online where public information can be stored and maintained (a ['repository'](#)) or its location and characteristics listed (an online [catalogue](#)). Prototypes should be running in 2009.

#### ***Keep up to date with best practice in engaging large numbers***

The Taskforce ran a competition called [ShowUsABetterWay](#) which generated around 500 ideas for uses of public sector data. This exceeded our expectations and proved to be a very positive experience in terms of the breadth and quality of ideas and the broader interest generated in the Power of Information agenda.

This is part of a growing trend of developing methods to harness the public's ideas for improving products and services. The Taskforce believes that there are important lessons that can be learnt from these exercises that would be of benefit to the public services. The greatest value will be generated if there is a mechanism within government for seeking and sharing best practice in this rapidly developing field.

#### **Recommendation 15**

Stay at the leading edge of customer driven service improvement. The Permanent Secretary Government Communications should regularly publish best practice and innovation in engaging large number of people online such as [Show Us a Better Way](#), [Dell Ideastorm](#), [Apps for Democracy](#), etc. An initial readout should be published on the Cabinet Office website by Q3 2009.

#### ***Beacon Status - encouraging and rewarding excellence***

The Taskforce talked with stakeholders and aired on its blog a [low cost approach for unlocking the power of information in Local Government](#). The Taskforce set out some simple rules in plain English that would help a Local Authority encourage information reuse and save money by adopting a simple policy:

- Ensure you have a copyright notice or a license to tell people what they can and can't do with your information (which is also your intellectual property).
- Every local authority owns its own copyrights and database rights. You are required by law (the Public Sector Information regulations) to publish the terms under which your material can be re-used.
- To minimise bureaucracy and cost it makes sense for your information to be available for people to re-use for free under a simple standard license. The best way to do this is using the plain English "PSI Click-Use license", administered by the Office of Public Sector Information, part of the National Archives.

- All you need to do is adopt a policy for your Council's information to be licensed by "The Controller of Her Majesty's Stationery Office", who also licenses Crown copyright information for the government. There is [clear guidance on the process for extending the scope of the click-use licence](#).
- You will need to adopt a [mandate following standard approved wording](#).

Following this process should reduce cost to the local authority by doing something once rather than many times. It could also foster local economic and third sector activity. Where leading local authorities take such measures they should be recognised and rewarded. The IDEA 'Beacon' scheme is a prestigious award scheme that recognises excellence in local government. The IDEA website [describes the Beacon Scheme](#):

*'The Beacon Scheme was set up to disseminate best practice in service delivery across local government....Themes are selected for each round of the scheme by Government Ministers. The themes represent issues which are important in the day-to-day lives of the public and reflect key government priorities. Themes are announced one or two years in advance and some themes will be repeated in future rounds. Beacon status is granted to those authorities who can demonstrate a clear vision, excellent services and a willingness to innovate within a theme. Awards are made by government ministers based on recommendations made by an independent advisory panel.'*

The Taskforce has discussed with Communities and Local Government the possibility of a Beacon award for excellence in unlocking the power of local government information.

### **Recommendation 16**

Communities and Local Government should work with local government to develop and adopt a Power of Information [Beacon award](#). The criteria for this award should start with the Taskforce's proposed licensing model and be extended as best practice develops.

### **Sustainability of third party services**

The Taskforce believes that if digital engagement becomes a more mainstream activity for government, as we feel it should, then questions of sustainability and support will become more pressing.

Many sites and services of public value are entirely created and maintained by communities or social entrepreneurs and do not require government intervention. However, the Taskforce also found that without some capacity for appropriate intervention there is a risk that public value from this sector will not be maximised.

We believe that there is scope for intervention at all phases of site development.

In the initial development phase, the main measures to consider are in the opening up of public data sources and in the provision of a supportive environment for innovation. These measures are addressed by other recommendations in this report. We also believe that innovation competitions and small grants can make a significant contribution in this phase. This conclusion is based on our own experience of the [ShowUsABetterWay competition](#) as well as our observation of the positive impact of similar exercises, such as [AppsForDemocracy in Washington DC](#), and of the small grants from the Ministry of Justice's Innovation Fund for Democratic Engagement.

Other issues arise during the later phases of growth and 'normal' operation. We have become informed about this by the experience of [Netmums](#) and [MySociety](#), who are both represented on the Taskforce, and of other sites such as [PatientOpinion](#) and [TheStudentRoom](#), who have met with various Taskforce members. We recognise that there is more work to be done in understanding the issues in depth and developing models that address them and this is reflected in our recommendations.

We believe it is important to be clear that while many sites and services are developed on a shoestring

budget this does not mean that they can be sustained on a shoestring as the costs of supporting users can rise dramatically once a site enters the mainstream. This is especially significant if they become integral to the delivery of public service objectives.

There are issues of straightforward financial viability, of fairness in terms of rewards for services delivered, and of appropriateness in terms of maintaining independence that all need to be considered if government is to depend on the availability of these services.

There are a number of models for providing support to develop and sustain services. These include:

- the provision of high quality, relevant public service content;
- technical assistance and technology platform support;
- funding through a paid-for advertising model;
- funding for specific events/exercises run in partnership with public services;
- direct grant support.

The Taskforce believes that models for providing support are insufficiently developed at present, largely due to the relative novelty of these services as potential public sector partners. We fear that much good work may be threatened if consideration is not given to developing such models as a matter of some urgency. Our goal in this should be to create a menu of options that is most likely to create sustainable innovative digital services that support public service objectives.

We note that the experience of the Public Service Broadcasting sector, whilst not directly applicable, may have some relevance here. We have a long experience in the UK of promoting investment in high quality public service broadcast content via a number of mechanisms similar to those described above.

We also note that a key tool in the PSB sector has been a mechanism to establish the limits of the BBC's services. Again, whilst not directly transferable, we believe that there are important lessons here for the public sector web estate to consider so that it sends clear signals about where it will and will not develop its own centrally-funded web services. We are more likely to see innovation by parties outside government where there is such a capacity to define the spaces in which government is not intending to operate.

### **Recommendation 17**

Government should encourage and assist the development of capability outside government in online empowerment or mutual support for public service outcomes, particularly in the Third Sector. It should also address the issue of those online organisations or people which are delivering clear, highly leveraged social value but which do not have a sustainable funding model. HMT and the Cabinet Office, particularly the Office of the Third Sector should bring forward proposals by end June 2009.

## **A modern capability**

The Taskforce recognises that significant resourcing implications will have to be addressed if our proposed changes to the way public services work are to be successful. Many people in the public sector already have the skills needed to deliver them and this inherent capability will increase to a degree over time by the simple process of recruitment of new staff from cohorts who use web tools in their daily lives. However, there is a need to intervene to ensure consistency of knowledge about best practice across this very diverse community, to ensure that there is ongoing external input and to make specialist functions, such as copyright and licensing expertise, available more widely.

### ***Resourcing OPSI, a part of the National Archives***

The government should ensure that the public sector makes the best use of scarce talent and expertise while it is upskilling to take advantage of the power of information. This work is at the leading edge for any public sector and skills are in short supply.

The public sector will need to resource and use world class centres of excellence such as OPSI, a part of National Archives, carefully to avoid both wasteful duplication and missed opportunities to tap their expertise. Things that can be done once for the whole of government should only be done once, in line with the Transformational Government strategy. The more resources for instance OPSI has, the more efficient it can be in providing a shared service for government as a whole. OPSI's running costs of £1.04m per annum, reported in the United Kingdom Report on the Re-Use of Public Sector Information 2008 ([Cm 7446](#)) are modest compared to the £205m annual running costs of central government web operations estimated by the NAO. However as is often the case in the public sector, the costs and benefits fall to different organisations.

#### **Recommendation 18**

The Taskforce repeats Steinberg and Mayo's [recommendation 12](#) on resourcing OPSI, a part of National Archives.

*'To ensure that OPSI can regulate the public sector information market effectively, government should review the fit between OPSI's functions and funding, and recommend options that will ensure it is fit for purpose.'*

### ***Implement the National Audit Office report***

The National Audit Office published a report '[Government on the internet: progress in delivering information and services online](#)' in July 2007 that made important recommendations for the government's web estate.

The Taskforce noted in particular the expenditure estimate for the central government web estate:

*'..We estimate the annual running costs for central government websites as £208 million. Some departments and agencies still have weak information about the costs and usage of their information provision and other facilities online. Hence they are unlikely to be maximizing the value gained from these expenditures'*

The Taskforce judges that the NAO recommendations will, if implemented help the delivery of the power of information. A greater focus on relevant communication channels and the real costs of websites through a thorough audit will help administrators take better decisions about how to engage with online communities and to make information available for others to reuse.

#### **Recommendation 19**

The taskforce endorses the NAO report and urges the government to ensure that the NAO findings are implemented.

## ***Government websites should meet basic usability criteria***

It is easier to extract benefit from information that is presented on the web in a usable way.

The Taskforce commissioned work on usability from the agency Bunnyfoot to identify good and bad aspects of government websites. The review found that some government websites are failing to get the basics right, for example:

- Not helping people to navigate the site easily
- Not helping search engines like Google to find the site
- Not speaking the language of the user

In response, the Cabinet Office is working with Departments to resolve the specific issues identified in the review. Of the 150 separate issues identified, departments have firm plans in place to resolve 116 of them.

A good example of design focussed on usability can be [found here](#). The Cabinet Office has also asked COI to build a 'usability toolkit' for web developers and web content editors across government covering the basics of usability in a way that is engaging and interactive. The aim is to raise awareness of usability issues across government and to improve the quality of government websites. The toolkit will be delivered by end March 2009.

### **Recommendation 20**

The Taskforce worked with the COI to produce 'usability' criteria and guidance for central government websites. These criteria should be published with an implementation plan to central government websites. The criteria and guidance should be published as soon as possible with an implementation plan by June 2009. The approach should be extended to the websites of the wider public sector including local government, health and police.

## ***Constant innovation and staying up to speed with new ideas***

The Taskforce has done its work and will disband itself if the Minister for Digital Engagement agrees. However we want to ensure that the government continues to stay abreast of the latest developments so that it can serve citizens well in the future. Work by DIUS on innovation confirms the view that special arrangements are required to ensure that large organizations maintain an effective capacity to innovate. The Taskforce wants to ensure that relevant Ministers and the Head of Digital Engagement have an external sounding board and think tank to help them keep abreast of a fast moving field.

The Power of Information work arose in late 2006 from the innovation strand of the Transformational Government programme. It is important that such innovation continues. We would also recommend that curiosity driven, risk taking research continues in the Transformational Government team as the emphasis shifts to implementing the Taskforce's recommendations.

### **Recommendation 21**

The web is developing all the time; so are ideas about how it and public sector information could be used. The Cabinet Office should have a modest fund for leading-edge R&D to continue to test ideas and incubate new capabilities, and it should co-ordinate R&D work in this area elsewhere in the public sector.

### **Recommendation 22**

A new external high level advisory panel should replace the Taskforce, reporting to the Minister for the Cabinet Office. The Panel should advise Ministers and public servants on the latest developments

in the area in the UK and overseas, scrutinise departmental plans and capabilities, set priorities for the Cabinet Office's R&D fund, have a dialogue with the information community inside and outside government and drive and monitor progress in implementing the recommendations set out above. The Panel should work closely with the [Advisory Panel on Public Sector Information](#). It should publish regular reports on the internet about developments and the government's progress. The panel should be established by June 2009.

## **IT Profession Skills**

The issues raised by this report point to quite new approaches and techniques in the publishing of information. One early indicator is the [proposal for an API model for publishing the 2011 census](#). As with any innovation, the challenge for a large organisation such as the public sector is to capture the skills of leading professionals and transfer them to the body of the workforce. The UK Government IT profession and the work of other professional bodies such as the [Society of Information Technology Management](#) (SOCITM) provide good mechanisms to deliver this.

The Government IT Profession and SOCITM describe themselves as follows:

*“The [Government IT profession](#) brings together all IT professionals working across the UK public sector: UK government departments and agencies, local government, the emergency services and specialist deliverers such as the health sector. It includes everyone from new entrants through to the members of the Chief Information Officer Council.”*

*“The [Society of Information Technology Management](#) was founded in 1986 as the professional association for ICT managers working in and for the public sector. Members are drawn primarily from local authorities but also from the police and fire services, housing authorities and other locally delivered public service.”*

*“Managers or consultants from organisations supplying ICT products and services to the public sector, or which support public services in other ways, may also join the Society.”*

This report makes recommendations to the government and confines itself to the Government IT profession but we would encourage SOCITM to behave in a similar way.

### **Recommendation 23**

The Government IT Profession initiative - which covers the whole public sector - should specifically develop skills and cultures for IT professionals needed to support the implementation of this report. In particular, skills relating to the web, re-use of information including data mashing and delivering modern web functionality.

## **Modern Training in Modern Skills**

In conversations with civil servants in Whitehall, the Taskforce has found varying levels of expertise and familiarity with the tools and techniques discussed in this report. While there are some areas of world leading expertise, use and expertise is still patchy.

### **Recommendation 24**

The Taskforce has commissioned online training material on website usability from COI that can be deployed rapidly at relatively low cost. The Permanent Secretary Government Communications should bring forward a plan to train communications staff in the basics of social media and a modern web presence by Q3 2009. Consideration should be given to adapting and extending this training to public sector leaders and then more widely.

## ***Increase UK capacity for data mashing via higher education***

The Taskforce was struck that much of the innovation in the vibrant UK data mashing scene comes from people associated with the higher education sector, either recent or current students or academics. In fact innovation in public sector data mashing has largely come from individuals and the third sector rather than from the major IT companies that supply the government.

Many of the people doing data mashing have a background in the sciences and specialist research into data mashing should be increased. The Taskforce also sees great potential in broadening the capability to mashup data out into the social sciences and beyond. To combine people with a strong research interest in reusing public information with the skills to do so. The 'technical' skills needed to manipulate and present data are diminishing thanks to services such as [Yahoo Pipes](#) and the [research information repositories](#) arising in the UK. In the same way that use of spreadsheets, databases and statistical packages became commonplace in academia in the early 1990s, now might be the time for data mashing to follow a similar path.

### **Recommendation 25**

The government should bring forward a plan to work with the higher education community on an increased UK capacity and capability for data mashing, including a focal point or virtual centre of excellence. The Cabinet Office should bring forward a plan by Q3 2009.

## **Acknowledgements**

The Taskforce would like to thank all those who have contributed to its work and in particular the secretariat who were drawn from the Cabinet Office, Central Office of Information and the Office of Public Sector Information, part of the National Archives. Many other people inside and outside government have actively contributed by commenting on the blog and beta report and by taking part in various Taskforce activities. You know who you are – please take a \* bow \*. And we are encouraging the use of #poit as a tag for Taskforce related material on the web so we can all keep contributing