

2020 Public Services Trust
at the RSA

Online or In-line:

The future of information and
communication technology
in public services



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About the 2020 Public Services Trust

The 2020 Public Services Trust is a registered charity (no. 1124095), based at the RSA. It is not aligned with any political party and operates with independence and impartiality. The Trust exists to stimulate deeper understanding of the challenges facing public services in the medium term. Through research, inquiry and discourse, it aims to develop rigorous and practical solutions, capable of sustaining support across all political parties.

In December 2008, the Trust launched a major new **Commission on 2020 Public Services**, chaired by Sir Andrew Foster, to recommend the characteristics of a new public services settlement appropriate for the future needs and aspirations of citizens, and the best practical arrangements for its implementation.

For more information on the Trust and its Commission, please visit www.2020pst.org, and join our debate at www.your2020.org.

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Foreword

By Tim Kelsey

This short manifesto by the 2020 Public Services Trust argues that public services need to embed Information and Communication Technology (ICT) more boldly and systematically in planning, delivery and evaluation in order to radically improve efficiency, quality and citizen control.

ICT use in public services has simply not kept pace with its application in other areas of our lives, where over the last twenty years, it has transformed the way that we interact and do business.

In our working and private lives, ICT – particularly the internet – has radically extended how most of us communicate with colleagues, family and friends. As consumers, it has given us access to a world of abundance, convenience and choice that we can personalise to our own needs and tastes. As citizens, it has expanded our opportunities for ‘community’ and begun to open up new ways to engage in the political process. Yet for the most part, our relationships with public services follow old models of physical access, and data about service delivery is not held or shared in ways that promote challenge and innovation. The case for a digital and information revolution in public services is compelling.

This manifesto sets out its core elements: much greater use of online services; more extensive use of secure identifiable data; wider sharing of anonymous data; a new deal with the public around consent; and new duties on public services and public bodies to release performance and other data as a matter of course for public scrutiny.

We are not alone in calling for a more ambitious approach to ICT in public services. Politicians of all shades are looking at its potential more creatively. In December 2009, the Government released ‘Smarter Government’ (www.hmg.gov.uk/frontlinefirst.aspx), advocating an accelerated move to more digitalised public services and new ways of enabling greater personal responsibility and control

over services using technology. This was followed by the Conservative Party's Information and Technology strategy (www.makeitbetter.org), which included plans to require local councils to publish online details of all expenditure over £1,000 and a new 'right to government data' in a standardised, comparable format. All this is encouraging, though we are concerned that the focus is still too much on the procurement of infrastructure. The focus needs to be on agile services and culture change. There is no need to wait for the arrival of costly, untried technologies when most of the tools and technologies needed are at hand today. Adopting common data standards and compatible software should not be costly, and investing in them would quickly reap savings.

More than any other single factor, it is the fiscal crisis that has brought urgency to the case for reform. ICT offers the realistic prospect of 'more for less' in straightened times. Services have only just begun to explore the savings to be made through moving many of their interactions with citizens out of expensive face to face environments, into less expensive online technologies. Our manifesto envisages a large scale move towards ICT enabled 'self-service' public services, the benefits of which we set out in terms of quality as well as cost. We call for better use of ICT in order to generate the data flows – and out of these the knowledge – necessary for far more cost-effective services. Any successful, dynamic private sector business relies upon a well-informed set of management accounts. Sales volumes, costs, profit levels and/or share price all help a firm to understand whether it is achieving its aims, meeting its targets and following the best strategy. Similarly, no local authority (for example) should attempt to run the essential business of securing good health, education, regeneration or public safety outcomes without good quality information (including user-feedback and other performance data) that tells it whether its resources are achieving its aims. For public services to improve, they need to be able to understand what drives their business, monitor their performance over time and respond accordingly.

To date, the public has been wary of government's attempts to hold and share their personal data more readily and more widely. These are concerns which the Trust takes seriously, and has examined in detailed polling undertaken for this report by Ipsos MORI. In light of these concerns it is important for us to emphasise that the revolution we are calling for does not involve an accretion of data – and power – to the centre; quite the opposite. Making performance and other data from public bodies publicly available as a matter of course will move power decisively towards

citizens, individually and collectively. For example, data on public services and federal spending in the United States is rapidly being put online so that citizens can analyse it for themselves and report instances of waste, mismanagement or fraud.¹ Such 'crowdsourcing' is a low cost way for government and citizens to identify both good and bad practice.

The changes called for in this manifesto are practical, and the benefits that will flow from them are immediate and tangible. But we also believe that they will unlock much more profound benefits for our public life in the longer term. The platforms they create for active citizenship will spark change, the directions of which we can only guess – though it is safe to assume they will lead away from centralised services and governance.

The stakes are high. The changes we propose are about the way we (service users, citizens, taxpayers, public service professionals, policy makers) engage with government and public services. This is about how we can improve the quality of public services – despite pressures for cutting costs.

This report is a call to government, public service providers and citizens. Government has a role in making public service provision transparent, information rich and democratically accountable. Providers have a duty to understand and reveal how well they are using public money to deliver services for their communities. Citizens and service users have a responsibility to work with providers (whether public, private or third sector organisations) and government to help them to deliver better quality public services. Information and communication technologies are a critical means to make real the aspirations of this manifesto.

The MPs expenses scandal has also shown that the public will no longer tolerate a society in which we are unable to hold our government readily to account. Current and emerging technologies provide a lever for delivering both public service reform, and enhancing transparency and democratic accountability. We welcome the recent political awakening to this philosophy, but hope that our report sheds new light on the issues and policy options available.

Tim Kelsey

Dr Foster Intelligence, Commissioner 2020 Public Services

1 See <http://www.data.gov/> and <http://www.recovery.gov/Pages/home.aspx>.

Executive Summary

Building blocks of the public services digital and information revolution:

- 1 Digital public services become the norm.** Although many services will continue to support citizens in traditional ways, the default assumption must be that personalised, convenient and cost effective public services should – where possible, and as soon as possible – be delivered online.
- 2 Outreach services ensure that no one is left behind.** Online 'self-services' will divert demand from traditional channels, freeing up resources to (a) allow traditional face-to-face services to target the most disadvantaged, and (b) invest more in digital outreach.
- 3 Online data empowers citizens to make more informed choices and hold providers to account.** We call for the release of data in primary education, secondary education, care for the elderly, social care, and social security to help the public make informed choices about their providers. Public service providers will be required to publish their own measures of quality and performance. All raw, underlying and anonymised data must be made available to all interested analysts. This will create a market for information on public service quality (where the government is one of a diverse set of players).
- 4 Citizens are asked to consent to sharing more data.** We suggest a 'public good test' to determine whether or not individual consent will apply; there are some cases where the benefits of individuals sharing data (even at an identifiable level) are such that they lose the right to opt-out.
- 5 All public service providers have a statutory or contractual responsibility for publishing high quality data about their performance on a routine basis.** This data should include that of every public servant – whether frontline or backroom – who would be required to produce data on their job role and, where appropriate, a performance scorecard. Individuals would be held to account for the accuracy of this information.

We also suggest that Government departments publish the degree to which they have saved costs and improved performance by introducing digital services.

6 Central government steps back from manufacturing 'content'. In terms of developing and applying the appropriate technology to achieve this, we believe that central government should (unless there is a clear case to the contrary) be limited to delivering what the market will not do. This mitigates the risk of heavy government involvement in online technologies.

7 Speed up the pace and ambition of open data for innovation and accountability.

The UK has started to make inroads into open data and open government. But more can, and needs to be done. We propose ten ideas, most of which can happen within six months of the next parliament. They include:

- A hit-list of the most important data sets for immediate release
- An open, online review to consider new data which would be in the public interest
- An "Open Data" charter for government
- The publication of all public data unless there is a very good reason otherwise

Our vision for online 'self-service' technologies is to transform the way we engage with public services and government. Online public services are underpinned by information and the secure sharing of data between service users and providers.

But open data is just the beginning. It has the potential to change our whole concept of governance – allowing citizens to take much greater control of what and how things are done on their behalf.

Our argument for a digital and information revolution

ICT is everywhere changing our lives. It has changed the expectations that we bring to public services, and has the potential to transform our relationship with them and the effectiveness with which they meet our needs. ICT is critical to unlocking the efficiency gains required to deliver high quality public services at a time of fiscal restraint.

We therefore call for much stronger flows of information between service users and providers, greater use of online services and determined action to reduce digital exclusion.

We believe that it is unacceptable that citizens cannot get answers to simple questions such as:

- Is my GP relatively excellent, bad or truly awful?
- Does my local authority deliver a relatively good range of high quality, cost-effective personal social services, or special educational needs support?
- Where do I compare what childcare facilities are available in my local area?
- Does my local police force have a good track record in bringing crimes to justice and is my local criminal justice system relatively punitive or lenient in its sentencing?
- How do I know what my elected council representatives do on my behalf?

It should not be forgotten that the context of these proposals is one of a threat to political legitimacy. Talk of a 'Post Bureaucratic Age' and new forms of governance have started to take place. Open data, which we also discuss here, is just part of the story to make services accountable and citizens powerful. Together with the potential of online technologies to change our mode of access to public services, we are challenged to rethink the entire role of the state and our relationship with government.

Combing both the power of online ‘self-service’ delivery and a commitment to intelligent use of high quality data, we offer our ‘model of improvement’. Underpinning this model are seven building blocks for change. These form the backbone of our manifesto, and highlight the immediate benefits from our vision for information and technology in 2020 public services. Problems need to be overcome on issues such as public trust, consent and data quality, but we believe that all of these can be resolved.

Model for improvement

Our model for improvement describes how online public services and open data can form a virtuous circle. Figure 1 illustrates the benefits (in green) that follow when the relationship between public service users and providers is enhanced by better flows of data and information – in both directions.

Reading anti-clockwise, the diagram above shows that when citizens and service users share with providers relevant personal information (whether online or offline), they are able to access higher quality public services. Professionals who are more informed of citizens’ needs and experience of public services will be better able to respond in a dynamic, personalised way. Online technologies help to facilitate this flow of information and allow users to engage with public services at their own convenience, on their own terms.

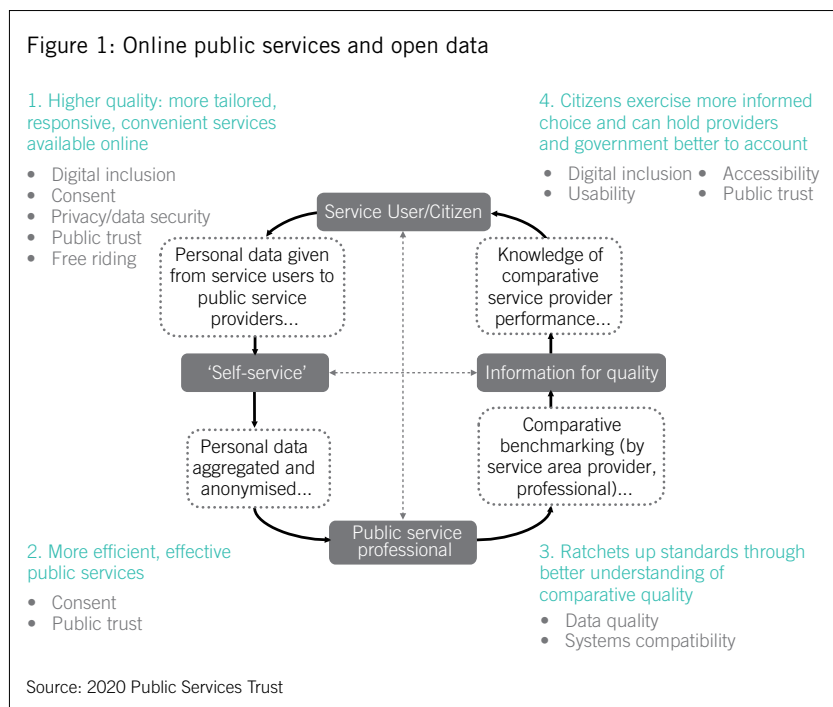
More targeted and effective allocation of professionals’ resources will in turn raise the overall quality of public service performance. Furthermore, professionals will not only be able to deliver better services, but will be able to know whether or not the quality of their service is comparable with their peers. Benchmarking of results is a powerful stimulus to raise performance, especially when these results are widely and readily accessible to the general public who can then hold public service providers (and government more broadly) better to account. Informed choice, rather than dictat or ignorance, can be the arbiter of the market.

“Informed citizens and professionals are amongst the most valuable asset the public sector has to help it manage its resources most productively.”

Tim Kelsey, Co-founder, Dr Foster Intelligence

The bullet points (in grey) in Figure 1 represent the challenges inherent in making the shift from our current system which, whilst starting to change, is still largely

bureaucratic and ineffective at helping people to improve their lives and local community. These challenges are considered throughout our seven underpinning ‘building blocks’ for change.



Of course, citizens' future relationships with public services will not all be conducted online; far from it. Though ICT will underpin all public services to ensure that all can provide and benefit from performance data, many services will continue to be delivered as face to face services. Where personal relationships are at the heart of the value delivered, as is the case in childcare and teaching for example, it would be neither practical nor desirable to try to shape these into digital services. There are also situations – for example, reporting crime – when the potential anonymity of online communication might increase the risk of false, or otherwise irresponsible, interpretation/use of information. Our model for improvement in Figure 1 is designed to ensure that the most disadvantaged and vulnerable people are fully supported through appropriate channels of access to public services (e.g. through face-to-face or phone contact).

Building block one: Digital public services become the norm

“By 2020, the Millennial Generation - sometimes referred to as Generation Y – will not expect anything other than digitalised public services. Growing up with social networking, instant messaging and the World Wide Web, the internet is not an add-on to life, it is just the way things are done. If public services are to engage with this generation, they will have to do it on their terms – fundamentally changing the way they communicate with citizens forever.”

John Coulthard, Senior Director Healthcare and Life Sciences, Microsoft

Digital public services will take the sort of technology that many people already use in their everyday lives – internet banking, online retail, social networking – and apply it to their interactions with public services and government. Typically, these technologies allow ‘self-service’ transactions in environments that the individual can personalise to his or her own needs and preferences. They circumvent the bureaucratic structures that characterise many traditional in-person transactions, and cut out the unnecessary costs that go with large physical estates. Where old style services often sit in silos and require citizens to move between them to achieve the outcomes they want, digital ‘self-service’ environments can be configured to make multiple services available through a single gateway.

Digital public services not only allow us to re-imagine how public services are conceived, accessed or delivered. Potentially they also support a radically different relationship between citizens and service providers. ‘Self-service’ transactions could include:

- Greater use of e-learning and video conference for education or training purposes;
- An online tool that assesses your eligibility for all benefits and automatically submits a claim to the relevant agencies;
- An online health diagnostic and prescription service; or perhaps,
- A social networking site for people with similar chronic social care needs.

Yet the public sector has only just begun to exploit their potential.

The barriers to reform are more cultural than technical. The UK has a sound regulatory framework within which to expand the role of e-government, including through more effective data management. And as one of the world leaders in

technology adoption, including broadband internet, the UK is relatively well placed in technical terms to make rapid progress towards digital public services. In 2009, 70% of UK households had access to the internet, and 63% to broadband.² Although the UK lags behind Europe's top e-government performers (the Netherlands, Sweden and Norway all have levels of e-government usage of over 50%)³ it actually exceeds the EU average of 28% with 32% (2008). This is an increase from 21% in 2003.⁴

Despite the positive trends and sound technological base, significant behavioural obstacles remain to mass use of digital public services. Polling for the 2020 Public Services Trust by Ipsos MORI confirms that most citizens prefer to interact with public services through a mixture of new and traditional channels. This 'channel hopping' is not unique to their relationship with public services – they are likely to behave in similar ways in commercial environments – but it is problematic if the policy aim is for digital public services to become the norm, rather than supplementary options. People will only commit more consistently to online environments when they find definite personal advantages in doing so. We believe that the model of online public services and public data that we propose will deliver those benefits, but we do not underestimate the amount of reassurance and support that will be necessary.

Vision: 'Self-service' online healthcare

Except for extremely acute care and very short periods of intensive intervention to fix people up so that they can go on with their lives, the primary job of the health service when people are ill is to help them understand what is wrong, how to look after themselves and how to stay well. That is a far cry from how we run the NHS today. A new approach to thinking about the NHS would include:

- A presumption of self-care wherever it is safe, supported by online health information and remote multi-channel (24/7 telephone, email, text and instant messaging) consultations with a range of healthcare professionals.
- A comprehensive suite of digital self-assessment tools which mirror the clinical algorithms used by health professionals in providing remote health advice, but designed for lay users.

2 www.statistics.gov.uk/pdfdir/iahi0809.pdf

3 These three countries exhibit the highest levels of e-government usage (the percentage of individuals using the internet for interaction with public authorities) in Europe, with Norway at 62%, the Netherlands at 54% and Sweden at 52% (Eurostat, 2009).

4 Eurostat (2009)

- Online access for every individual patient to their personalised NHS, the 'front door' of which would consist of a customised and customisable homepage (My NHS) containing the essential information about their own health and care, including:
 - Their individual NHS health and care records
 - Links to their own GP practice website and reviews
 - Relevant reference information and learning resources
 - A list of their health professionals and published performance data
 - A record of all of their upcoming appointments
 - Their medication/prescriptions
 - Links to a dynamic online directory of health and social care services, accessible via a range of mobile devices, with the facility for users to book appointments, comment, update in real time
- A range of multi-channel lay, professional and peer supported health coaching for anyone living with a long term condition, based on a combination of digital and telephone channels and available at different levels of intensity.
- An alternative to registration with a local GP practice for patients who would prefer to have their primary relationship with the NHS through telephone and digital channels. This would offer a radically different option, particularly suitable for transient population groups and those whose lifestyle involves significant travel or who rarely visit the doctor. An organisation such as NHS Direct would take primary responsibility for patients who opted to register with the NHS nationally rather than with a local GP, including maintaining their records, meeting relevant targets, contacting patients for routine immunisation, screening and monitoring appointments and providing them with a dedicated telephone number and email address for all their health needs. Physical care would be provided through sub-contracting arrangements with local providers and would be bookable by patients themselves or through the central agency. This would cover both unscheduled and scheduled care, including care packages where needed.
- Digital outreach, taking NHS expertise to high traffic forums where health is discussed, such as Family Planning Association, Mumsnet and Bebo, targeting populations with particular needs and offering clearly identified specialist contributions to user-led discussions forums and support networks.

Vision: Information and technology in the criminal justice system

Although crime is one of the public's major concerns, polling by Ipsos MORI for the Home Office (2008) shows 50% feel that they are not sufficiently informed about the service the police provide. This compares to only 25% of people not feeling informed about their local schools and 23% their GP. The police are – to many people – the 'face of the criminal justice system'. It is therefore vital that the public know what they should expect from the police and how to access the services they are responsible for.

The Policing Pledge was launched in March 2009 and all 43 police forces have since signed up to give the public a new entitlement to consistent national minimum standards of service from the police service – from 999 calls and response times to local meetings and information. A mix of traditional and new media was used to raise awareness of the Pledge, including a television campaign and posters. However, DirectGov now hosts all this information by operating as a single online portal with a local area search facility (via postcode): localcrime.direct.gov.uk.

For many people, the internet would be a convenient way to get information on access to, and quality of, the police and other criminal justice services (including probation, youth offending, anti-social behaviour, and sentencing and prison services). Evidence suggests that this would help to build public confidence in the system (Ipsos MORI, 2009).

Building public confidence in the criminal justice system is important for three main reasons. First, because lack of confidence in the police and judicial system is one of the main reasons why much crime goes underreported; second, because a credible criminal justice system is a key pillar of liberal democracy; and third because the public have a right not to live in fear of crime. The degree to which underreporting varies according to the type of crime – with up to 80% of some types of antisocial behaviour, for example, unreported. When the public do not feel that justice will be served (whether through a fine, community or prison sentence) they will have little incentive even to report crime (let alone engage in any court process). Insufficient reporting of crime limits the understanding of the police as to the extent, nature and causes of criminal behaviour in their local area. As such, they are less likely to be able to respond appropriately and bring offenders to justice and this helps to drive a negative reinforcing cycle of failure in the system as a whole.

Better use of high quality data can help break this negative cycle of failure in the criminal justice system. In particular, publishing the sentencing outcomes of all court

cases (with identifiable data) will help local people to understand what is being done to tackle crime in their local area (and elsewhere). Nine out of 10 respondents to the Casey Review thought the public were not told enough about what happened to those convicted of crime. So long as there are adequate processes in place to ensure that false information can be redressed, online sentencing data will help to build confidence and enable citizens to hold the police and criminal justice system better to account.

Data is already collected at local authority ward level, but there is currently serious confusion as to what can and cannot be shared between whom and for what purpose (whether in an anonymised, pseudonymised or identifiable format). We therefore urge for clarity about the current legislative and operational framework on what data can and cannot be shared and how it should be made available.

We also call for greater transparency regarding the current barriers to:

- 1** Data already collected at ward (or – ultimately – postcode) level by local police being published online (in accordance with our principles for open data – see building block seven)
- 2** Anonymous, aggregated performance data sets from across the criminal justice system being published online. For example, the outcome of all court cases across the UK should be readily accessible in a searchable, comparable format; and,
- 3** Greater data sharing and data matching to take place between the police, local authorities, healthcare, probation services and the courts, so that a better picture of the extent, causes and consequences of crime can be identified (see ‘The Cardiff Model’ example below).

“The public has an insatiable desire for information about crime and anti social behaviour – both about what’s happening to tackle it and about what happens to criminals after arrest. Getting this information to the public is important because people who feel informed about what’s being done about crime are much more likely to feel confident that the Criminal Justice System is on the side of the law-abiding majority. This in turn makes them more likely to play their part; to report crime and anti social behaviour, give evidence in court and support their neighbours to do the same. Important strides have been made through the data

now available on directgov.uk. However, there is clearly more that could and should be done to exploit the potential of the internet to inform the public.”

Louise Casey, Home Office

Greater clarity of the legislative boundaries of releasing and sharing data will help to break some of the cultural barriers to more intelligent, transparent, information-led public services. Whilst we acknowledge that a high volume of data is already collected by local police and through the comprehensive British Crime Survey, institutionalised cultural concerns are preventing the most being made of these sources. At a minimum, we therefore call for these two data sets to be published in such a way that they can be readily integrated and used for internal and public scrutiny.

Example: Beatbullying.org – online public service delivery by the third sector

Beatbullying is an online resource hub for children and young people. In particular, it works with those who experience bullying. Through a number of peer-based programmes, Beatbullying aims to help young people who are subject to bullying and those who bully.

For example, the CyberMentors scheme trains young people to mentor other young people using an online networking model. Cyber Mentors are trained both on- and offline to have the credentials, skills and confidence they need to guide to other young people they meet online when chatting, surfing and just generally having fun.

Safeguarding is central to Beatbullying and their online and offline tools. The issue of consent is also considered seriously, but in a child-friendly way (e.g. through animated Flash movies). The registration process is designed to make sure young people have explored the section on the website which clearly explains the issues of child protection, confidentiality, privacy and consent.

Beatbullying also provides a number of resources for young people and teachers, including lesson plans for both primary and secondary school students. The organization works in partnership with agencies like Child Exploitation and Online Protection Centre (CEOP), Local Safeguarding Boards, Barnados, Action for Children and P3.

For more information, see www.beatbullying.org.

Example: viscerocom – online criminal justice support service

Viscero is a new enterprise that applies web-based technologies to drive improvements in the quality and productivity of UK public services. Working collaboratively with the public, private and third sectors, it makes use of service design to help ensure user involvement and insight. Viscero currently focusses on the criminal justice system, particularly those services relating to witnesses and victims:

- **Witness Appeal Mapping** - Viscero is developing an online service to help connect witnesses and the police. The service makes use of internet mapping technology and will be used as part of a pilot project being conducted by Witness Confident (a charity and legal advice centre) that wants to curb street violence. The mapping service will engage and inform the public and help the police by logging violent street crime, witness appeals and responses, and the progress and outcomes of cases. The Metropolitan Police support the pilot and are co-operating in the design and testing of the service. The pilot is due to launch this summer in Hackney and Islington. Further developments are likely to build on the opportunities presented by social networks and mobile devices to help extend the reach of the system.
- **Victim Case Updates** - Numerous reviews of the criminal justice system have identified the area of victim case updates as one which requires significant improvement in order to meet the needs of victims and achieve the levels of service required by the Victims Code of Practice and the Policing Pledge. Viscero is working with Victim Support and a number of other partners to develop an initial prototype of an online self-service facility for victims. The service seeks to provide victims with the ability to keep up-to-date with their case and to register their communication preferences, while helping the police and other criminal justice agencies build confidence and satisfy the requirements of the Victims Code and Policing Pledge.

For more information, see www.viscerocom.

Building block two: Outreach services ensure no-one is left behind

“The virtual self-service NHS would offer a far better experience at significantly lower cost for the increasing proportion of people who choose the internet for many of their normal daily activities. This would enable the traditional NHS to make better use of its resources and focus on the needs of the people and situations that need face-to-face care...To make this happen requires dynamic leadership and a freeing up of attitudes rather than huge new investment. Now is the time to do it.”

Joanne Shaw, Chair NHS Direct

The benefits to individuals of online ‘self-services’ stem from the fact that people are able to engage with more tailored, responsive public services using web-based technologies at their own convenience. These benefits are marked in green on Figure 1. As people see these benefits, demand will be diverted away from traditional channels to online public services.

In turn, more and better use of the internet to deliver public services should free up resources to (1) allow traditional face-to-face services to target the most disadvantaged, and (2) invest more in digital outreach.

Our survey shows that the people who are often most in need of public services are the most likely to be digitally excluded.⁵ In particular, older people (over 65 years), women with few formal educational qualifications and low incomes are the least likely to have access to ICT.

Whilst cost is declining as a reason for not owning an internet connection at home, there has been a sharp increase in the number of people who do not want or see the need to have home access to the internet; 58% of those who do not own an internet connection say it is because they do not need or want it (ONS, 2008). Closing the digital divide between those who make increasing use of the internet, and those who increasingly feel that it has nothing to offer them will require sustained work to encourage cultural change as well as provide practical help.

The 2020 PST supports the essential work of the Digital Inclusion Taskforce. Policy makers must continue to drive down harmful digital inequalities. Specialist

5 Similar results have been found in other recent analysis, (e.g. DCLG, 2008 and Digital Britain Report 2009).

community-based services need to continue offering outreach support to digitally marginalised groups. Yet we believe that they will best be able to do so as part of an ambitious programme to move many more public service interactions online. We urge that digital exclusion is not used as an excuse to stall the extension of online ‘self-service’ public services and information. Instead, we propose using the resources saved from online channels to target ‘physical’ support to those most in need.

Building block three: Online data enables citizens to make informed provider choices

“Transparency of information, made available in a way that intermediaries can interpret for public consumption, has the potential to inspire the public to make demands for radical changes that by-pass traditional vested interests.”

Matthew Swindells, Group Managing Director (Health), Tribal Consulting

We have seen that digital public services offer the service user far greater control of process and outcomes than traditional physical services. When brought together with open data, they enable citizens individually and collectively to make more informed choices, including the choice to change provider in some circumstances, or, in the absence of quasi-markets, hold providers or government to account.

For example, information readily and widely available on the location, type and quality of public services enables citizens to make informed choices about where they seek healthcare, education or support for entry to employment. In future, this information must include performance data published by individual providers (such as doctors or teachers), or service-user reviews. Regarding the latter, NHS Choices⁶, PatientOpinion⁷, mySociety⁸ or www.iwantgreatcare.org are just some of the tools available for citizens to feedback their experience of public services to others. Online communities are also being used to crowdsource solutions to local problems (see, for example, Kings Cross Local Environment⁹).

6 www.nhs.uk/Pages/HomePage.aspx

7 www.patientopinion.org.uk/

8 www.mysociety.org/

9 www.kingscrossenvironment.com/

In terms of performance data, the public sector already collects large amounts of data which can be used to construct measures of quality in public services. The problem is that this data is not widely available for analysis by other interested parties – whether in the private or third sectors, or by citizens themselves. For example, data on primary care is collected but is not routinely available. This means that citizens, private or third sector bodies cannot benchmark the quality of GPs or community service providers.

Lack of publicly available data has meant that there is, at present, a very underdeveloped market in information on public service performance. In health only a very small number of organisations actively analyse this kind of information (such as Dr Foster Intelligence).

For this to change, it is essential that providers are required to publish their own measures of quality and performance. But it is also essential that the raw, underlying and anonymised data is made available to all interested analysts – from commercial interests through to individual citizens wanting to examine for themselves the behaviour of a particular public service.

In particular, we propose releasing data in primary education, secondary education, care for the elderly, social care, and social security. We also suggest that each relevant Whitehall department should clearly express how they are going to release and promote this data and information.

We believe that public service providers have a responsibility to give citizens and third parties the opportunity to benchmark those services by analysis of aggregated, anonymous data – even where the concept of consumer choice is not applicable (e.g. the local police) – because this will drive up quality. Whilst government has a role in producing its own analysis, it should also point to other forms of innovation in the market. In the spirit of open, transparent government, we believe the state should not hold a monopoly on information.

Information (dispersed via old and new technologies – from postal newsletters to social networking sites) empowers citizens to engage in new forms of active dialogue with local government and public sector organisations. Relevant information can also be used to build public momentum for change that circumvents vested interests. For example, think of the power that public opinion could have on education or health if it was confronted by the fact that:

- Similar hospitals in London can vary by 25% in their costs and that the hospital providing the best outcomes in the South East is 10% cheaper than the one providing the lowest quality care;¹⁰
- Comparing two state schools in the same city: the one with the more deprived catchment area has 70% of its children achieving 5 grade A-C at GCSE, whereas in the less deprived area only 22% were reaching this standard.¹¹

People all over Britain use websites like moneysupermarket to think about which financial product to buy. No one uses a site to pick a school, or a care provider – because they don't exist. The next government should spearhead a new push to create meaningful public service information websites for citizens to compare quality and performance in the areas of primary education, secondary education, child care, care for the elderly, and primary care.

Meanwhile, comparative performance data enables professionals to benchmark their services against peers and deliver more efficient, effective public services. Evidence has shown that – despite initial fears of perverse incentives – publishing cardiac data has led to a real improvement in outcomes (Bridgewater et al, 2006). Moreover, when armed with this information, public accountability is also a powerful stimulus for driving up standards. Competitive free markets rely upon information to enable demand and supply to operate efficiently. Our model shows what happens when this is applied in the public realm, and supported by online information and 'self-service' technology, a virtuous circle of information flows and service user engagement can even challenge our political and welfare institutions.

“Fundamentally there is a crisis in democracy. It is the responsibility of the public sector to rebuild that trust and open data is a major part of the solution. But it's not enough just to release data. We need to use it to change our whole mode of governance to one based on openness and welcomed input from citizens. Those who cling to the old anti-transparency model will be fighting a losing battle.”

Emer Coleman, Project Director, Greater London Authority, London DataStore

10 Department of Health, Reference Costs (2007 - 2008)

11 Department for Children Schools and Families, Achievement and Attainment tables (2008)

Building block four: Citizens are asked to consent to more data sharing

The full benefits of open access data can only be enjoyed if at some point the citizens whose use of services is captured in that data allow it to be shared. Figure 1 proposes that in order to access digital self-service public services, citizens should be required to provide a basic level of personal information. This information would be mainly for identification purposes, so that public service professionals can be sure that they are providing an appropriate service to the user.¹²

Figure 2: Spectrum of Consent

No opt-out

- ‘Self-service’ users are required to give a minimum level of personal information. Otherwise they are not able to access public services online.
- Personal data will be anonymised and aggregated by public service providers for performance analysis. Individuals will not be able to opt-out.
- Personal data will be automatically shared with relevant and authorised public service professionals (subject to a strict and monitored code of practice).
- A minimum (albeit lower) level of personal information will be required – as now – to access ‘physical’ public services. (Here, different rules of consent may apply.)
- There is no situation where public services cannot require (personal) information be shared.

Apply the ‘public good test’

- Data sharing without prior consent is restricted to a clearly defined purpose ‘within’ public services (e.g. clinicians able to see their patients’ records).
- However – where prior consent is assumed – individuals will have the right to ‘opt-out’.
- Prior individual consent is sought when data is to be shared across services (for a clearly defined purpose).
- There are circumstances when the right of the individual to opt-out is trumped by the public benefit derived from this information.
- A ‘public good test’ is applied: only if there is provable public benefit, can personal data be shared without prior consent.
- The public good test would include circumstances where an improved service relies upon a sufficient number of people sharing data (i.e. where a complete picture is required).

‘Full’ consent

- ‘Self-service’ users can consent to share as much or as little personal data as they wish with whichever public service professionals and/or providers they choose. Access to online public services is not restricted by consent to share information (above a certain, basic minimum).
- Prior consent is sought before individuals’ data is anonymised and aggregated for performance analysis. Individuals have the right to ‘opt-out’.
- Prior consent is sought before personal data is shared between other public service professionals, providers or (local/central) government departments.
- There is no situation in which the right of individuals to ‘opt out’ of sharing their personal data can be trumped.

¹² A unique personal identifier (such as an NHS health number or National Insurance number) with online login details could be easily used to guarantee eligibility (whether by residency, citizenship or tax contribution) and help to prevent fraud.

Beyond this minimum level of personal, identifiable information (see Glossary), users could consent to share more of their personal information with a single service or across multiple public service agencies. This information might be for a single specific purpose, or could be (depending on the level of prior individual consent and where appropriate) available to certain other trained, authorised professionals as a matter of course. Finally, individuals would also be able to grant consent (explicitly or by opt-out) for their personal information to be anonymised for aggregate analysis.

There is a range of opinion as to whether or not public service users should have the right to 'opt-out' of giving their personal data for aggregated, (pseudo-) anonymous analysis. On the one hand compulsory data sharing enhances the level of accuracy and completeness of aggregate performance information (shown on the left hand panel in Figure 2 below). However, people on the other end of the 'consent spectrum' believe that individuals should have the right to control who they share their data with and how it is used.

The second panel of Figure 2 above sets out a 'middle way' between the two extremes of the spectrum of consent (no opt-out or 'full' consent). In this case, prior consent for data sharing (for specific, clearly defined purposes) across public services is assumed unless individuals explicitly choose to opt out. However, this right to opt-out does not apply *if (and only if)* there is a provable wider public benefit derived from the sharing of this anonymised or pseudonymised personal data (see Appendix for definitions). We call this the 'public good test'. It would operate in a similar way to the publishing of information 'in the public interest' by the UK press.

Wider public benefit might also require the collection of a sufficient amount of data or information to give a 'complete' picture of public service performance or local needs. With the potential to opt out of sharing one's personal information, there will be 'information free-riders' who will benefit from more tailored public services that draw on the aggregated information of other users. However, there is a risk that the people who choose to opt out 'skew' the dataset as a result. In some public services, or for some particular purposes, the model in Figure 1 will require a minimum level of data sharing to allow for productive analysis. In other cases, a more complete picture would mean the benefits of compulsion outweigh the downside. The latter would be incorporated into the public good test.

We recognise that the issues of consent are intimately bound up with wider issues about trust and data security. Our Ipsos MORI survey shows clearly that there is a positive relationship between people's levels of trust in public services and their willingness to consent to data sharing. Perhaps more surprisingly, our survey shows that blows to government credibility as a result of high-profile data loss scandals – 71% do not trust government to hold their information securely (Ipsos MORI, 2008) – have not fed through directly into a loss of confidence in public services as data holders. When asked which organisations they would most trust to hold personal information such as medical records securely, 65% chose public services, while only 6% opted for private companies and 5% for charities and voluntary organisations.

The degree to which the majority would want to grant prior consent depends upon the *purpose for which data is being shared, about what and between whom*. Most respondents wanted to give prior consent where data was used to assert individual rights (e.g. entitlements to benefits or access to services). Where it was used to enforce the law/public security, most respondents felt that it should be possible for data sharing to take place without prior consent.

However, there is a clear gap between what people say and what they do in regards to sharing data with private companies. For example, millions of people give supermarkets and other high street stores (such as Boots pharmacy) details of their most intimate purchases. The benefits (e.g. cashable 'points') are seemingly sufficient to outweigh the risks involved in sharing their personal information (which can often include name, address, gender and date of birth). Public services need to prove the benefit they offer in exchange for greater levels of personal information and/or data sharing of anonymised data.

“Ways need to be found to teach people about the benefits of using data to drive better decision making in the public sector. Understandable concerns about privacy and data protection are too often getting in the way of securing the benefits that data matching offers, even though these concerns are usually easy to address.”

Steven Bundred, Chief Executive, Audit Commission

Example: The 'Cardiff Model' – data-sharing to enhance local commissioning and resource allocation

The Violence and Society Research Group (Cardiff University) has found that many violent offences which lead to hospital treatment are not reported to the police. This lack of information risks public safety and a misallocation of resources. By using data collected in Accident and Emergency departments, the so-called 'Cardiff Model' can generate information on the precise location and weapons used in non-reported violent crime. Formal evaluations have found that integrating data and information across police, healthcare professionals and the local council has enhanced the prevention of violent crime. For more information, see www.vrg.cf.ac.uk.

Example: The National Fraud Initiative – data matching to protect taxpayers' money

To ensure that taxpayers' money is spent wisely and legitimately, it is crucial that public funds are protected from fraud. Fraud costs the state millions of pounds each year, siphoning much needed resources from core public services.

In 2006/07 the National Fraud Initiative (NFI) uncovered £140 million in fraud and accidental benefit overpayment. This included:

- £1.75 million from duplicate payments to public sector suppliers
- £24 million in housing benefit overpayments (31% of which were the result of fraud)
- £630,000 from residential care homes claiming funding for elderly people who had died

Over the last 10 years, NFI has detected nearly £450 million worth of fraud or accidental overpayments. It relies on data matching across a number of different sources, ranging from payroll and pensions, to the electoral register and student loan claimants. (In accordance with the Data Protection Act, 1998) this data matching uses personal, identifiable data to detect anomalies and inconsistencies.

Using a secure web-based application, it can be cross-checked whether a tenant has more than one council house, an employee on long-term sick is working elsewhere or public sector organisations are employing people without an appropriate UK visa. At Harrow Council, for example, data matching with the local immigration service led to 45 criminal arrests.

The NFI is conducted by the Audit Commission, an independent body responsible for promoting economy, efficiency and effectiveness in the use of public money. Its work covers local government, health, housing, police, probation and fire and rescue services. All organisations that the Commission is responsible for auditing are required to allow their data to be matched for the purpose of fraud detection. Other organisations can offer data on a voluntary basis and this is matched if the Audit Commission thinks it appropriate. Note that the Audit Commission operates strictly according to the Code of Data Matching Practice (2008).

For more information, see www.audit-commission.gov.uk.

Example: Greater Manchester City Region – integrating public services through data sharing

Manchester City Council is seeking to improve the way its public sector agencies integrate their services, particularly in relation to the City Region's most deprived areas. One of the key priorities for achieving this is the development of systems that enhance the flow of data (with appropriate safeguards).

Working with the various government departments involved (including the Department of Work and Pensions, the Department of Health and CLG) the City Region council have committed to pursue specific data shares where they comply with existing legislative frameworks and provide clear operational benefits.

Specific examples of data sharing being considered for approval include:

- Names and addresses of those in receipt of benefits, particularly IB and Lone Parent, so that advice can be targeted at specific families and individuals.
- Developing a model of informed consent that would allow sharing of both individual resident information to provide targeted support where appropriate and numerical data at a hyper-local area (150 households) to target advice better where worklessness is greatest.
- Primary Care Trusts to inform Local Authorities of live births to facilitate follow-up and offer relevant services. (This is already going on in some Local Authorities within the Greater Manchester City Region).
- Sharing Housing Benefit and Council Tax data (potentially at the individual household

level) in order to develop a better understanding of workless patterns and cycles across the City Region. This would allow for more effective targeting of services.

- Sharing activity logs across services using CRM systems in order to safeguard vulnerable people. At present there is no systematic way of knowing what other services are doing. A shared depository for public sector logs could enable greater visibility of where events, which on the surface might seem isolated, in fact point to a major risk.

Building block five: All public service providers have a statutory or contractual responsibility for publishing high quality data about their performance on a routine basis

If a greater readiness to consent to (at least anonymised) sharing of personal data can be conceived of as the citizen's side of a new digital public services bargain, government and services must commit on their side to regularly providing high quality performance data. We believe that data quality should be *as fundamental* as frontline public services skills (such as clinical or teaching competence).

In 2007 the Audit Commission published a set of data quality guidelines. It highlighted the risks of poor quality data: "information may be misleading, decision making may be flawed, resources may be wasted, poor service may not be improved, and policy may be ill-founded. There is also a danger that good performance may not be recognised and rewarded." The Audit Commission makes another important point, namely that focus on accuracy should be balanced – where appropriate – by timeliness of release. In 2009 Steven Bundred, CEO Audit Commission, announced the need for investigation into poor quality data across the public sector.

We believe that it is necessary for public service providers to be responsible for the quality of the data they produce. Individual public service professionals should be tasked with producing data on their job function, and – where possible and appropriate – a scorecard of their performance. This would be readily available online in a standardised, comparable format – helping taxpayers to hold public sector professionals better to account. We believe that all public service professionals – both frontline staff and *back-office public and civil servants* – should be mandated to publish this information. It is the responsibility of each public service professional to ensure the accuracy of their data. Finally, and to catalyse the cultural shift towards open data and online 'self-services' within central government, we believe that every

department should publish data on financial savings and improved performance generated by introducing digital services.

However, central government's primary role will be to set national standards for data quality. Public service providers and professionals will have to meet these standards, and will be held to account by existing institutional structures (e.g. Information Commissioner's Office). The sensitive and often complex issues that arise from public use of data raise many regulatory questions. However, we believe that these can be tackled within the current framework. It is not our intention to create additional layers of bureaucracy.

We recognise that raising the bar on data will impose additional burdens on public service professionals and raise fears of red tape. Clear thinking and an outcomes focus will be needed to agree what data will yield most insights without imposing onerous collection requirements. It may be useful to review lessons learnt from professions such as teaching and policing where routine data collection has been introduced in recent years. We believe that the benefits derived from high quality data far outweigh the costs of collection. In the NHS, for example, the Audit Commission found that "developing information and data that meet the requirements and needs of clinicians makes it more likely that people will use the data and want it to be right" (Audit Commission, 'Nothing but the truth' 2009).

In addition to audit and regulation, quality can be ensured through either:

- 1 A 'payment by results' approach where funding follows performance (in terms of defined output or outcomes). Whilst gaming is a concern, there is little evidence to suggest that this happens extensively by professionals in practice (see, for example, Bridgewater et al, 2007).
- 2 Peer and public scrutiny, under which providers and professionals – motivated by reputation – self-regulate the accuracy of their data. Initial evidence from open data sites is that they rapidly self-clean in this way (see London DataStore example).

"Government needs to see information as enabling better management. Current performance can be measured and priorities set based on clear evidence, and long term change programmes can keep direction and 'learn by doing', while organisational structures become flatter and more flexible."

Amytas Morse, Comptroller and Auditor General, National Audit Office

Data quality is paramount, especially where disadvantaged and vulnerable people are concerned. A report by the Information Commissioner's Office in 2006 highlighted the risks associated with child databases, especially when data is shared across multiple agencies. These risks include missed alarms (by failing to identify problems) or false alarms (where inferences have been made from inaccurate information).

For example, the Joint Area Review of the London Borough of Haringey in November 2008 discovered that 'the standard of record keeping on case files across all agencies is inconsistent and often poor... Police and health service files are often poorly organised and individual cases are difficult to follow. Health services files include hand-written notes which are sometimes illegible and do not identify the author. The standard of record-keeping in health records of looked-after children and young people is poor and some entries are inaccurate' (Ofsted and HM Inspectorate of Constabulary 2008). A commitment to high quality data and data processing is critical – perhaps especially in relation to child services and the protection of other vulnerable people.

Building block six: Government steps back from large scale IT procurement and data processing

UK governments have had a notorious record of IT procurement. Our centralised system of national administration has turned to national projects for technological solutions. The £12 billion NHS National Programme for IT perhaps epitomises the scale of failure and public dissatisfaction. Despite this, public sector information and technology strategies continue to focus largely on physical IT infrastructure. We believe that this misses the critical point: public services need to be based on *knowledge* derived from high quality information and data, not on technology for technology's sake. Where it can apply its buying power, government might have a role to play in procuring IT. Even then, however, it might be restricted largely to local procurement. Not only would this help to minimise massive complexities and risks associated with costly national systems, but it would also help to support (for example) a shift to localised welfare and service commissioning.

The role of central government would be to ensure interoperability of localised self-service systems (from both central to local government, and from back-office to front-office). It also has a duty to guarantee national standards of data quality. As we argue in Building block three, there is a role for government to publish its own quality metrics online. However, this information should be set within a wider

market of interested citizens and organisations (private and third sector). In terms of developing and applying the appropriate technology to achieve this, we believe that central government should (unless there is a clear case to the contrary) be limited to delivering what the market will not do. This mitigates the risk of heavy government involvement stifling innovative use of information and online technologies.

Given the space to work with government and public services, we believe that citizens, third sector organisations and commercial businesses – each with a range of valuable skill sets and interests – are likely to provide an active market in the low-cost, highly innovative, production of technology and information to improve public services.

“Transparency of HM Treasury data is absolutely critical for improving fiscal accountability and restoring confidence in the UK’s public finances. PESA [Public Expenditure Spending Accounts] data are limited to top lines only. This severely limits the ability for citizens to hold government and public organisations to account. How do we know whether spending decisions represent best value for money? How can we have a public conversation on spending priorities if we don’t know where our money goes?”

Bridget Rosewell, Chief Economic Adviser Greater London Authority

Building block seven: Speed up the pace and ambition of open data for innovation and accountability

“The thing people were amazed about with the web itself is that when you put something online, you don’t know who is going to use it. You’re looking for something and you think it’s impossible that somebody will have done it before, but you find that they have, and the web saves your bacon. It’s the serendipity – the unexpected reuse that is the value of the web. The combination of things that you can do to data, when you put data together you can derive very powerful new insights; so I think that realisation that the UK had got all the source that was under-utilised means the arguments become very obvious for putting them out there for people to re-use.

Tim Berners-Lee, interview with Prospect Magazine, 2010

Open data means providing raw data on the internet for re-use by citizens and databases. It includes the way citizens and business online can make use of

everything from government statistics (like crime statistics) and other data to create new, useful forms of information.

After a slow start, the UK has recently made strides on this issue. In 2009 the Government launched a fast moving review by Tim Berners-Lee to set up data.gov as a repository for public information. The opposition Conservative Party have, if anything, been more radical, advocating a set of genuinely radical transparency policies in their 2010 'Make IT Better' online consultation strategy document. Key points included publishing all government contracts online, and a pledge to publish online all government spending over £25,000.

There are a growing number of small and large organisations flourishing in this area (such as Experian, MySociety.org, and the Open Knowledge Foundation) and the UK also has a fair track record in innovative projects (including Number 10 e-petitions and Openly Local).

But on the brink of an era of radical transparency, these exemplars are not enough. Other countries like Estonia have a full suite of best practice policies. Others, like the United States, are ahead of us in many areas (see especially Obama's demonstrated commitment to open government). To keep up in some areas, and get further ahead in others, a step change is needed. Below are ten ideas which would help make this happen within the next decade. Most of them can happen within six months of the next parliament.

- 1 Create a hit list of the most important data sets to publish.** Not all data is equally valuable, though almost all of it is useful. The Government has set up data.gov, a portal to store public sector data, but not all the most important and useful data sets are available yet. The next government should create a hit-list of the most important, and commit to publish them within six months. That list would include: an open database of UK Postcodes; the PAF database of UK addresses; the transport timetable data that underpins TransportDirect; the data on property sale prices held by the Land Registry and information on companies and their directors from Companies House. In addition, the government should produce a new comprehensive list of every data set it creates. There should be a government hosted website where citizens can also express their views and ideas.
- 2 Launch an online independent review to consider new data we need.** The move to a data producing state will only occur if the state reimagines its role, and embraces one of its core functions as being the production of useful data.

At the moment much data is simply a helpful by-product of other government processes. For example, we have data on children who need free school meals *because* children need free school meals, not because the data itself is useful. But surely there will be useful data that the state could produce, which would help citizens make better decisions and businesses build new economic models? Again, citizens should be able to express their views and ideas through a single web2.0 site.

- 3 Finish the job on Ordnance Survey.** Geo-data from maps is crucial to the benefit open data can provide. In 2010 the Government announced its intention to review the Ordnance Survey's funding model, with a view to allowing it to offer its valuable mapping data freely. This would allow innovators and businesses to innovate and experiment with it (although larger organisations, like utilities, will still have to pay). The economic and social value of freely available mapping data vastly outweighs the financial revenue lost to the Treasury from providing it for free. It is imperative that this commitment is delivered.
- 4 Establish an “Open Data” charter for government.** John Major produced the “Citizen’s Charter” – a statement of principles to guide what the state should do, and what citizens could expect. It was much derided at the time, but the idea of such a charter is a good one. We need to create a new “British Charter for Open Data”. Some countries have truly radical openness politics. For instance, in some Scandinavian countries there is a service that publishes online all taxpayers’ incomes (as understood by the tax system). This may be a step too far for the UK at present, but perhaps it might be possible to publish the pay scales and data for civil servants? Meanwhile there are other types of data (on public transport, or the postal service, for example) that citizens can reasonably expect to be published – and a new charter would set this framework of fair expectations.
- 5 Push for a new default option on FOI.** “Publish first”, not “ask then publish”. At the moment the Freedom of Information (FOI) regime is a valuable source of data. But it is also expensive: citizens must first apply, then civil servants must assess if there is a case for justification. A better system would turn this on its head: create special exceptions in which it might be unwise to publish on grounds of cost, national safety, data protection or executive decision making, and publish all the rest as a matter of course. FOI should have a simple licence for re-use, much like the Office of Public Sector Information click-use licence.

- 6 A commitment to partnership.** Open data policies can redraw the line dividing the citizen and the state, creating new roles for citizens (as a new cadre of “data mashers”), and for the state (as a “data producers”). But for this partnership to work, the state must commit to genuine, radical partnerships with business and the third sector. For example, groups like Mumsnet or commercially developed applications (e.g. Microsoft’s HealthVault) could be seen as the front end for government services, and websites like Fix My Street could be wired directly into the internal systems of local government.
- 7 A new “open data” bill to update our legal framework.** Laws matter for open data. At the moment, many laws specify that information must be published, but not *how* it must be published. For example, laws on positive activity for young people mandate state bodies to gather and publish data on things for young people to do in local areas. But these bodies tend to interpret this as either ‘publish in a local paper’, or put a PDF on their websites. Instead we need a legal framework in which all data is published openly, in its raw form, and in a “machine readable format”. A new open data bill should put updating such legislation at its heart.
- 8 New prizes, forms of recognition and other incentives to encourage best practice.** That said, legislation alone will not be enough; we need to encourage all state bodies to want to open up their data, not simply be forced to. At present there are no incentives for harried local authority officials to do this – only downside. So Government should examine how it can use prizes, awards, beacon schemes and best practice to encourage and enable state bodies to open up.
- 9 Open up the government.** Whitehall must be in the lead on this agenda, and be seen to be in the lead. A radical first step would be an online log (in open format) of the times, subjects and participants taking part in all meetings between civil servants and others outside their department. Any part could be marked as “secret” or “restricted” if necessary (according to a set of reasonable principles designed to ensure independent policy making and confidentiality) but the general rule would be all this information would be available in a standard and open form. Any member of the public can then query the database (via multiple queries to multiple databases, or via third party databases run by organisations like Openly Local) by attendee, affiliation, department or body, or keyword search on minutes.
- 10 Real leadership from central government.** Data.gov is a great start. But a new push from the centre is needed. A “data mashing lab” in government is one possible idea, and one which David Cameron’s Conservative Party is

considering. Equally, there should be a new profession of data publishers created within government to create real expertise in data collection and presentation. The Office of the Third Sector should, as a priority, examine the models of partnership needed to work with innovative third sector data mashing organisations – and a right to an “open data” discussion should be initiated, so a third party outside government can always ask for a meeting to talk about a new partnership opportunity.

In the end, however, we recognise that open data is not an end in itself. Rather, it is what the data is used for that matters. Therefore a critical next step in thinking in this area comes from imagining what we would do in world where most data actually is open. Here the crucial step is what could happen to the interface, “transaction” layer of government – given that it is poor transactions with public services that are most frustrating to citizens. Opening up this layer (by allowing outside organisations access to the data on which transactions are happening and where in a given local council, for example) could be a hugely powerful next step. In particular, it could allow non-traditional providers to learn how to create alternative models of provision, drive down costs, reduce inefficiency in current processes, and encourage innovation in service delivery.

A yet more radical set of measures might, by 2020, consist of the following initial ideas (about which we suggest further thinking and debate):

- All government-funded research (including, but not limited to scientific research) to be made openly available, at a timescale sufficient to allow peer reviewed journals to change their business model.
- A log of every transaction and internal process of any kind – from a call to a contact centre, to a payroll transaction, to an internal meeting – in any public body (and possibly any body substantially supported by public funds), to be made available as a feed to the public (made anonymous if needed). A log could also be made available of who had used or viewed this data, or taken it as a feed, if appropriate.
- Open APIs (Application Programming Interfaces) must be provided for all transactional services provided by local and central government. All providers of transactional services to citizens would provide an open API, providing precise details of transactions, service levels, and so on.
- The end of Crown Copyright, or at least Crown Copyright under a Creative

- Commons license so that the public, who pay for this data, can do with it as they will. (Note there is precedent here; Bills are not copyright after Royal Assent.)
- A phased ban on the purchase of proprietary software solutions. Ensure all code developed substantially with public money to be open source.
 - All Government departments and public bodies to have a comparable, publicly visible internal accounting system (with appropriate, but minimal delays/exceptions to data release).
 - Free to use, open, published Application Programming Interfaces (APIs) as a fundamental layer of all Government web services, by law.
 - All legal case history to be placed in the public domain.

Example: data.london.gov.uk – opening up London

The London DataStore was first conceived in September 2009 when the Greater London Authority invited a group of social entrepreneurs to help it devise an online tool for freeing London's public data. If the data could be released in answer to a Freedom of Information request, the DataStore puts it online in a standardised, comparable format.

The site now hosts 205 datasets and ideas are crowdsourced among over 400 people following the DataStore on Twitter. Datasets on crime and transport are amongst the most popular, and data quality (through a process of self-cleaning) seems not to have been a problem. London DataStore is looking to increase the number of Borough Councils and datasets involved.

Emer Coleman, Project Director of DataStore, anticipates increasing pressure for all datasets to be open to the public online unless there is an extremely good reason why not. The issue of timeliness of data release will also be an important one; at present, some information – particularly that deemed commercially sensitive – is held back from the public. However, there may soon be a time when this is challenged – not least on the grounds of the public sector saving costs over the next five years of fiscal tightening.

As Coleman says, "London Boroughs are facing unprecedented times. They need to be able to communicate with their citizens to identify what their priorities for spending should be and to help visualise problems and policy solutions in different ways." The DataStore works on a principle that open data is not an end in itself, but a means to improved dialogue with citizens. The Greater London Authority wants it to represent the beginning of a new, more communicative, form of governance.

Glossary

| Term | MEANING | NOTES |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Data | Data are numbers, words or images that have yet to be organised or analysed to answer a specific question | |
| Information | Produced through processing, manipulating and organising data, to answer a specific question or add to the knowledge of the recipient of information | |
| Knowledge | What is known by a person or persons. Involves interpreting information received, adding relevance and context to clarify the insights the information contains | |
| Identifiable information | A data set which may include some or all of the following: a picture of the citizen; the citizen's name, address, full post code or date of birth | 'Personal data' is the term used in the Data Protection Act 1998. Note, for example, the Act treats much health information as 'Sensitive Personal Data' with additional protections. There are other forms of data deemed sensitive |
| Anonymised data | Data from which there is no theoretical or practical risk that the citizen could be identified by the recipient of the information | |
| Acceptably Anonymised data | Data from which in practice the citizen cannot be identified by the recipient of the information, and where the theoretical probability of the citizen's identity being discovered is extremely small | Absolute 100% anonymity is almost impossible to achieve without a data set being reduced to one data item, rendering it of little use for many purposes. It may not however, be necessary to remove all theoretical risks of identifying an individual from a data set |
| Pseudonymised data | Data stripped of personal identifiers when analysed at a macro level, but can – for specific and authorised purposes – be reassigned to the relevant individual | |
| Express consent | Agreement which is expressed orally or in writing | |

| Term | MEANING | NOTES |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Implied consent | Assumption that circumstances allow disclosure of information without seeking express consent | |
| 'Predictable' or 'expected' data use | Circumstances where it is reasonable to assume that the citizen anticipates and accepts that their data will be disclosed because, for example, they have already consented to receive a certain service | For example, data is sent from the GP to a hospital once a patient has given express consent for treatment |
| Public interest | The interests of the community as a whole, a group within the community, or an individual other than the individual citizen | |

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