



# Why Open Government Data Lessons from data.gov.uk

Professor Nigel Shadbolt FREng

UK Public Sector Transparency Board  
ChairUK CLG Local Public Data Panel

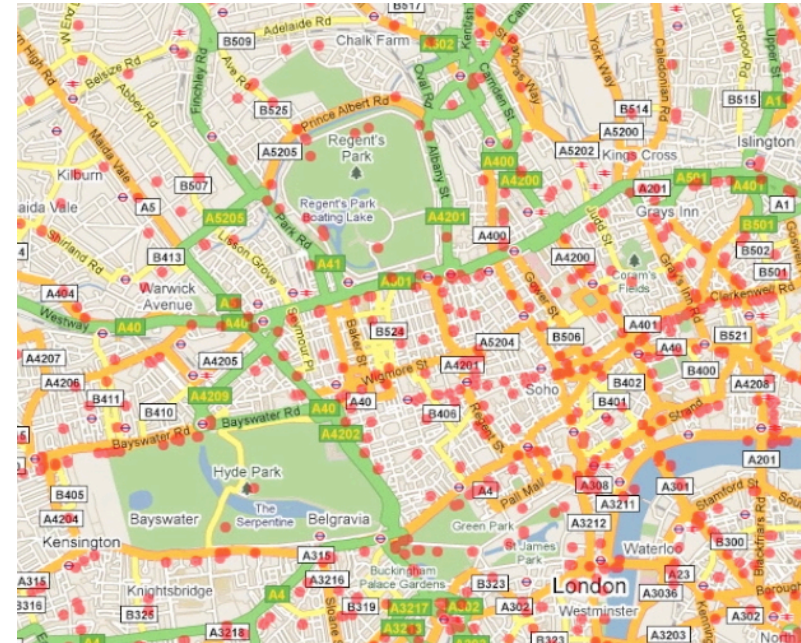
Twitter [Nigel\\_Shadbolt](#)

ISSWC, Shanghai, China  
November 2010

# The Power of Open Data



**Cholera  
cases**



**Bicycling traffic  
accidents**

# Beginnings in UK



University of Southampton project to show how  
open data could deliver services across  
Government (2005-06)



# Reported to UK Parliament

## The United Kingdom Implementation of the European Directive on the Re-use of Public Sector Information

- the first two years

A Report by the Office of Public Sector Information

July 2007

### AKTive PSI: Leading by Example

- 4.20 The UK public sector is a source of rich, high quality and sought after data. While much of this information is published and available for re-use by others, it is often trapped by poor data structures, locked up in legacy data formats or in fragmented databases.
- 4.21 To explore the issues more fully, in 2005-6, OPSI worked with Advanced Knowledge Technologies (AKT),<sup>36</sup> an inter-disciplinary research project led by the University of Southampton. OPSI's work with AKT, in a research project called AKTive PSI, had two aims:
- to raise awareness about and disseminate the capabilities of semantic web technologies amongst government departments, agencies and local authorities;
  - to show what is possible using this technology.
- 4.22 OPSI brought together a diverse collection of public sector information assets to experiment with. A number of public sector organisations were involved in the project, including Ordnance Survey, the Met Office, the Department for Communities and Local Government, the Office for National Statistics, the Department for Environment, Food and Rural Affairs, the Environment Agency and the London Boroughs of Camden and Lewisham. The project underlined the potential for the use of semantic web technology in large scale integration of public sector information and the benefits such aggregation would bring. Semantic Web technology provides the best model for a range of interoperability issues. If widely adopted it would do much to harness the re-use of public sector information.
- 4.23 AKTive PSI has spawned further work in government using Semantic Web technology<sup>37</sup>. OPSI is using this technology in the following ways:



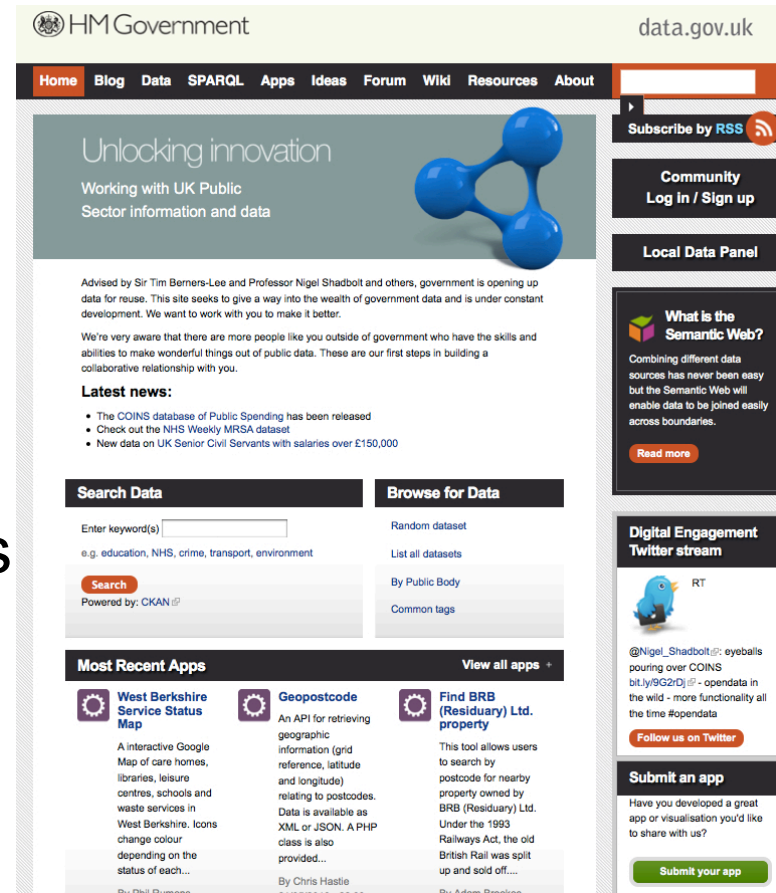
# OGD takes hold

- Tim Berners-Lee and myself appointed 9<sup>th</sup> June 2009 and set about creating data.gov.uk
- Reappointed to UK Public Sector Transparency Board June 2010
- Open Government Data (OGD) is taking hold
- Governments, local authorities, cities releasing data



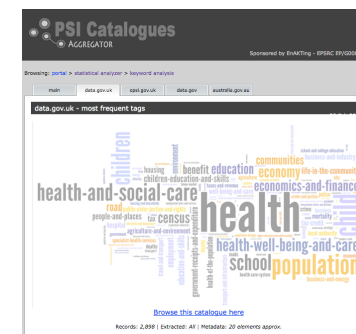
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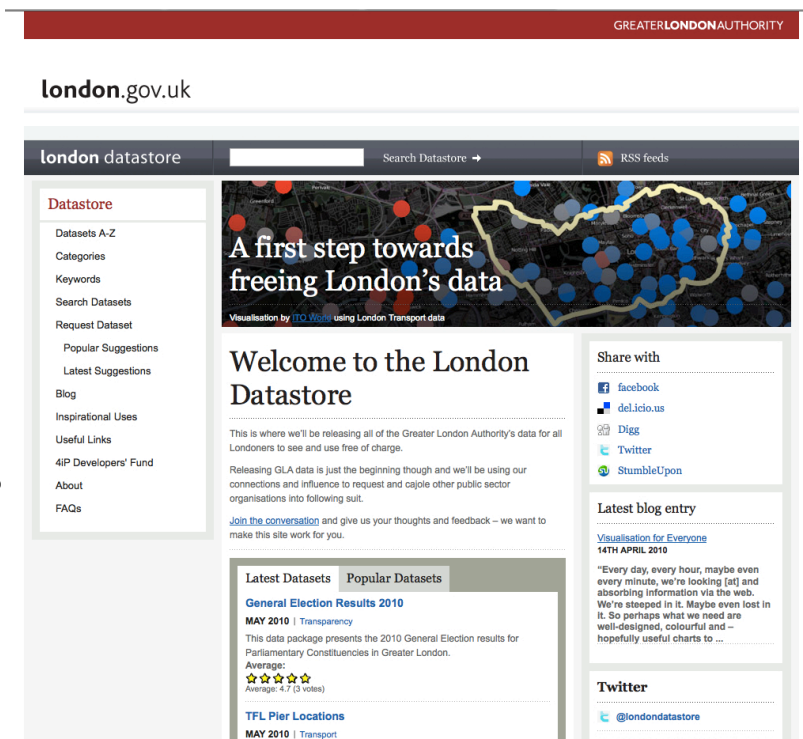
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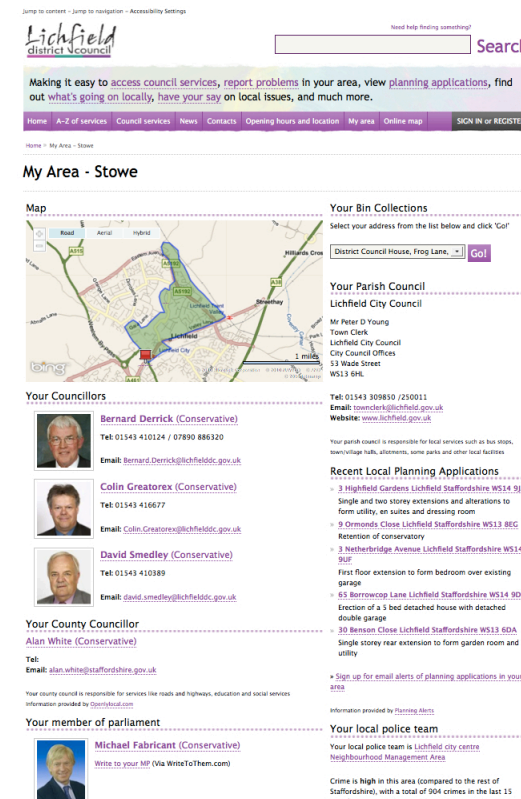
# OGD takes hold London data store

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# OGD takes hold Lichfield Local Authority

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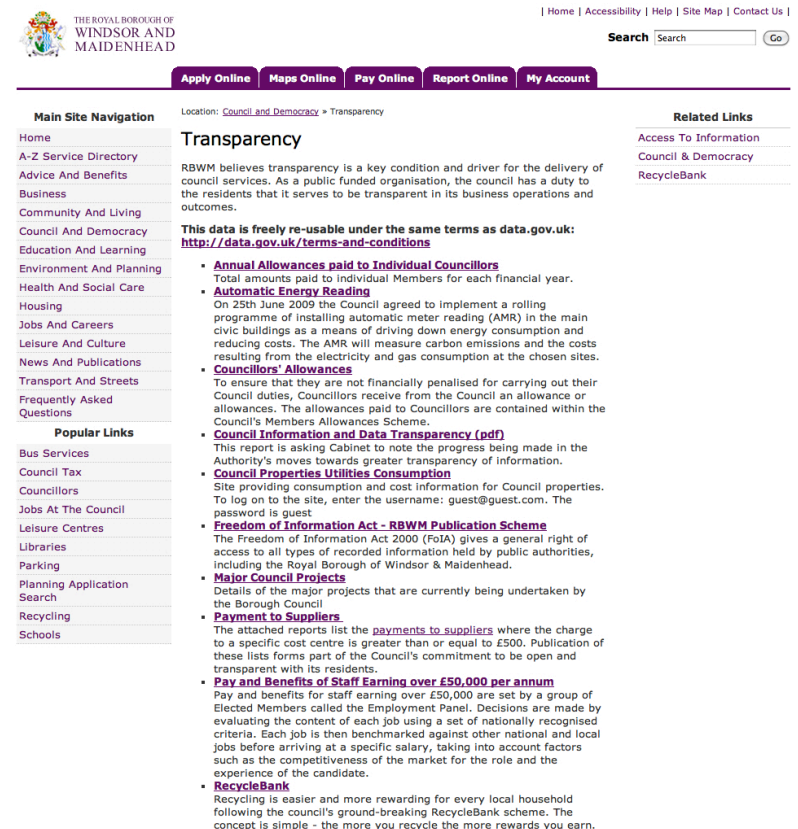


The screenshot shows the Lichfield District Council website. At the top, there is a navigation bar with links: Home, A-Z of services, Council services, News, Contacts, Opening hours and location, My area, Online map, and SIGN IN or REGISTER. Below this is a search bar with the text "Need help finding something?". The main content area is titled "My Area - Stowe" and features a map of the Stowe area. To the right of the map is a section for "Your Bin Collections" with a dropdown menu to select an address and a "Go!" button. Below the map is a section for "Your Councillors" listing Bernard Derrick (Conservative), Colin Greateorex (Conservative), and David Smedley (Conservative) with their contact details. To the right of the councillors is a section for "Your Parish Council" listing Lichfield City Council and its contact details. Below the councillors is a section for "Your County Councillor" listing Alan White (Conservative) with his contact details. To the right of the county councillor is a section for "Recent Local Planning Applications" listing several applications with their details. At the bottom, there is a section for "Your member of parliament" listing Michael Fabricant (Conservative) with his contact details. To the right of the MP is a section for "Your local police team" listing the Lichfield City Centre Neighbourhood Management Area and its contact details.



# OGD takes hold Windsor Local Authority

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The screenshot shows the Windsor Local Authority website. At the top, there is a logo for 'THE ROYAL BOROUGH OF WINDSOR AND MAIDENHEAD' and a navigation bar with links: Home, Accessibility, Help, Site Map, Contact Us. Below this is a search bar and a row of buttons: Apply Online, Maps Online, Pay Online, Report Online, My Account. The main content area is titled 'Transparency' and includes a location breadcrumb: 'Location: Council and Democracy > Transparency'. The page text states: 'RBWM believes transparency is a key condition and driver for the delivery of council services. As a public funded organisation, the council has a duty to the residents that it serves to be transparent in its business operations and outcomes.' It also mentions: 'This data is freely re-usable under the same terms as data.gov.uk: <http://data.gov.uk/terms-and-conditions>'. A list of links follows: Annual Allowances paid to Individual Councillors, Automatic Energy Reading, Councillors' Allowances, Council Information and Data Transparency (pdf), Council Properties Utilities Consumption, Freedom of Information Act - RBWM Publication Scheme, Major Council Projects, Payment to Suppliers, and RecycleBank. The left sidebar contains 'Main Site Navigation' and 'Popular Links' sections with various service links.

# OGD takes hold

## Redbridge Local Authority

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# data.gov.uk

- data.gov.uk itself (now with over 4000 datasets)
  - open source, open standards, open licence
  - key data sets released inc OS OpenData, COINS etc.
  - applications from outside HMG
- overcoming the many objections to transparency of data
- community of data users and developers
- political and technical leadership
- establishing public data principles



# The UK Public Data Principles

## Building Open Data Principles into the heart of Government

"Public Data" is the objective, factual, non-personal data on which public services run and are assessed, and on which policy decisions are based, or which is collected or generated in the course of public service delivery.

The screenshot shows the data.gov.uk website. At the top, there's a header with the HM Government logo and a search bar. Below the header is a navigation menu with links to Data, Apps, Ideas, Forum, Wiki, Blog, Transparency, Linked Data, and Resources. A 'Log in or Sign up' link is also present. The main content area features a large article titled 'New Public Sector Transparency Board and Public Data Transparency Principles', posted on 25/06/2010 with 22 comments. The article text describes the establishment of the Public Sector Transparency Board by the Prime Minister and outlines the government's transparency agenda. It mentions that the Board will drive forward the government's transparency agenda, making it a core part of all government business. The article also lists the members of the Transparency Board: Sir Tim Berners-Lee, Professor Nigel Shadbolt, Number 10, Digital Engagement, Digipov (COI), Digital Britain, and Jeni Tennison. Below the article, there are three sections: 'Have you used our data to create an application?', 'Have you got a good idea for the data?', and 'Do you want more data?'. Each section has a 'Share your idea' or 'Request new data' button. At the bottom, there is a 'Working definition of "Public Data"' and a 'Draft Public Data Principles' section. The 'Working definition of "Public Data"' states: "Public Data" is the objective, factual, non-personal data on which public services run and are assessed, and on which policy decisions are based, or which is collected or generated in the course of public service delivery. The 'Draft Public Data Principles' section lists five principles: 1. Public data policy and practice will be clearly driven by the public and businesses who want and use the data, including what data is released when and in what form – and in addition to the legal Right To Data itself this overriding principle should apply to the implementation of all the other principles. 2. Public data will be published in reusable, machine-readable form – publication alone is only part of transparency – the data needs to be reusable, and to make it reusable it needs to be machine-readable. At the moment a lot of Government information is locked into PDFs or other unprocessable formats. 3. Public data will be released under the same open licence which enables free reuse, including commercial reuse – all data should be under the same easy to understand licence. Data released under the Freedom of Information Act or the new Right to Data should be automatically released under that licence. 4. Public data will be available and easy to find through a single easy to use online access point (data.gov.uk) – the public sector has a myriad of different websites, and search does not work well across them. It's important to have a well-known single point where people can find the data.

# Public Data Principles

- Public data policy and practice will be clearly driven by the public and businesses who want and use the data, including what data is released when and in what form
- Public data will be published in reusable, machine-readable form
- Public data will be released under the same open licence which enables free reuse, including commercial reuse
- Public data will be available and easy to find through a single easy to use online access point ([data.gov.uk](https://data.gov.uk))
- Public data will be published using open standards, and following relevant recommendations of the World Wide Web Consortium



# Public Data Principles

- Public data underlying the Government's own websites will be published in reusable form for others to use
- Public data will be timely and fine grained
- Release data quickly, and then re-publish it in linked data form
- Public data will be freely available to use in any lawful way
- Public bodies should actively encourage the re-use of their public data
- Public bodies should maintain and publish inventories of their data holdings

# UK Coalition Government's Commitments

- Prime Minister's letter to Ministers on Transparency and Open Data - established Public Sector Transparency Board
- Creating a powerful new right to government data, enabling the public to request and receive government datasets
- Publishing data in open and standardised formats
- Transforming the culture of the public sector to one that presumes datasets should be open and shared with the public on an ongoing basis.
- Bringing in new measures to enable the public to scrutinise the government's accounts
- Requiring public bodies to publish online job titles, salaries and expenses of senior staff
- Publishing in full government contracts for good and services worth over £25,000 ...

## Number10.gov.uk

The official site of the Prime Minister's Office

[Home](#) [News](#) [Communicate](#) [Meet the PM](#) [History and Tour](#) [Number 10 TV](#)

[Home](#) > [Government data to be opened up to the public](#)

### News

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Press Briefings

Press Notices

Prime Minister's Questions

Speeches and Transcripts

Statements and Articles

Webchats

Monday 31 May 2010

#### Government data to be opened up to the public

The Prime Minister has today launched a radical plan to open up Government data to the public.

In a letter sent to all Government departments, David Cameron has set out ambitious plans to open up data and set challenging deadlines to public bodies for the publication of information on topics including crime, hospital infections and Government spending.

The letter also announced that MySociety founder Tom Steinberg will advise ministers on the development and implementation of the transparency agenda.

Whitehall departments will begin to release new data to the public this week, starting with senior civil service salaries, MRSA infection data on a hospital-by-hospital basis and the Treasury's COINS database of public spending.

In his letter, the PM said:

"Greater transparency across Government is at the heart of our shared commitment to enable the public to hold politicians and public bodies to account; to reduce the deficit and deliver better value for money in public spending; and to realise significant economic benefits by enabling businesses and non-profit organisations to build innovative applications and websites using public data."



M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
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31						
« Apr						Jun »

# Making the argument

## Early wins and eye-catching

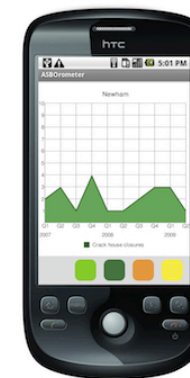


ASBOrometer is a mobile application that measures levels of anti-social behaviour at your current location (within England and Wales) and gives you access to key local ASB statistics.

ASBOrometer is available for iPhone and Android phones. Get it FREE from the iTunes App Store or Android Market now!

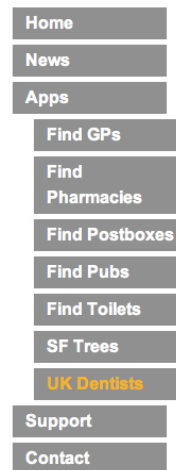
This app was created by [Jeff Gilfelt](#) and made possible by the [data.gov.uk](#) initiative, which is opening up UK government data for public reuse.

Available on the  
App Store



# Making the argument

## Early wins and eye-catching



### UK Dentists



Find your nearest NHS dentist quickly and easily!

The National Health Service has over 7,500 dental surgeries across England but finding one can be a difficult and time consuming task. This app is based on data provided by the UK's Health and Social Care Information Centre (HSCIC)\* and covers 99.4% of all registered NHS dental surgeries in England.

Search for an NHS dentist around your current location, or look for one in another area (where you may be moving to, or for a friend) via a simple place name or postcode search. Distances can be displayed in metric or imperial units (configured in the application preferences).

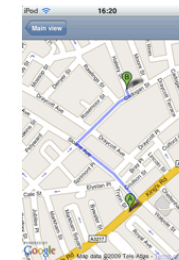
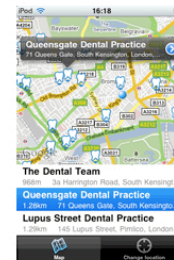
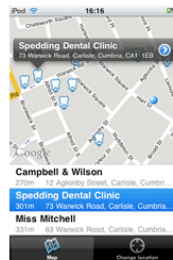
UK Dentists uses the built in GPS on the iPhone to get your current location, but can also locate an iPod Touch in built-up WiFi areas. If your location cannot be determined automatically then you can always enter your post code to get started. Please note that an internet connection is required to get location and map data.

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### Application Screenshots

Click on any of the images to see a larger version



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# Making the argument Economic and Social Efficiency – Location...

www.ordnancesurvey.co.uk/opendata

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**OS Ordnance Survey** **OS OpenData**

Mapping data and geographic information from Ordnance Survey

Create and support innovative, exciting ideas and applications using Ordnance Survey mapping. With OS OpenData you can access a selection of the most detailed mapping datasets available for Great Britain.

Now available - OS VectorMap™ District - a new mid-scale vector and raster dataset (alpha version).

**view**

- Outline of Great Britain
- Overview of Great Britain
- MiniScale ©
- 1:250 000 Scale Colour Raster
- OS Street View ©
- Boundary-Line™
- OS VectorMap™ District - **New**

**develop**

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- Ordnance Survey mapping for [business](#) or [education](#).

**help**

See our [FAQ](#) page to find answers to any questions you might have about OS OpenData, get more [technical help](#) with the map viewer or downloads.

Or you can [email](#) or call us on **0845 408 1895** (8.30am - 5.30pm, Monday to Friday).

- [OS OpenData Licence](#)
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- [Website terms and conditions](#)

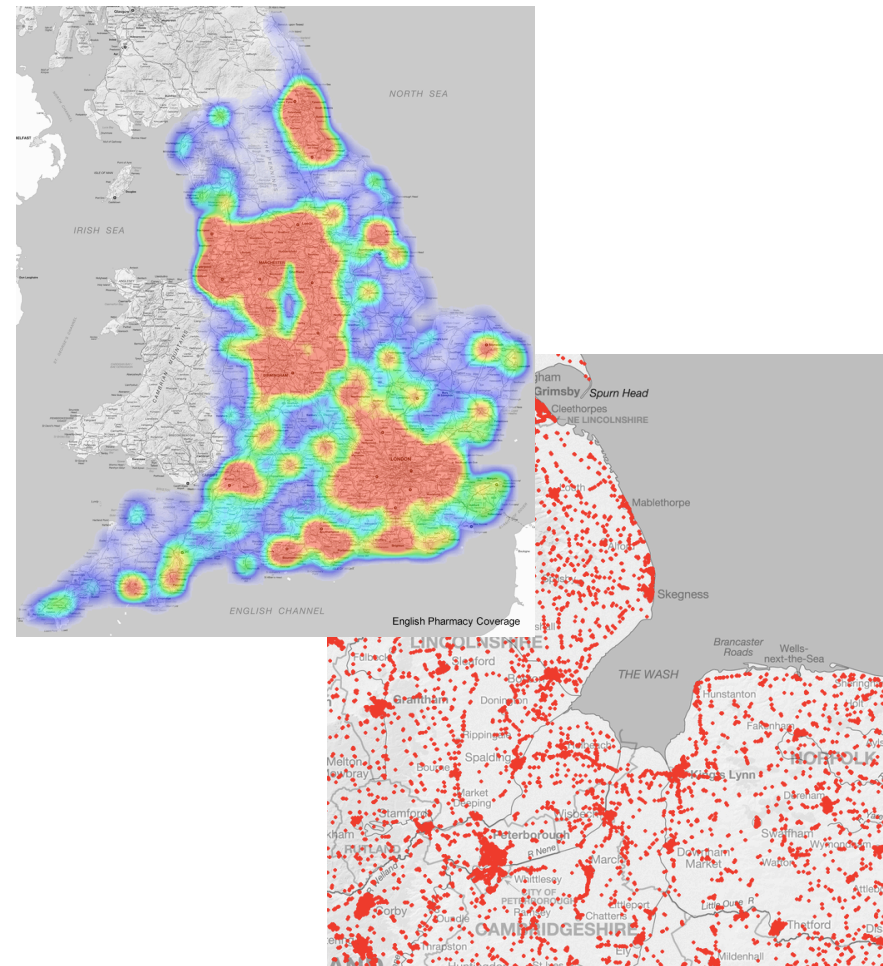
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[Ordnance Survey Blog](#), [Sir Tim Berners-Lee](#), [Professor Nigel Shadbolt](#), [Digital Engagement](#)





# Making the argument Transparency and Accountability – Spending...

guardian.co.uk

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News Politics Coins data explorer

## Coins Data Explorer

This is our first attempt at producing a way to navigate around the 3.2m data items released by the UK government as part of Coins. Scroll down the page to choose which chunk of data you'd like to explore - and let us know what you find.

Find out what the acronyms mean with our glossary.

Send story ideas to [coinsdata@guardian.co.uk](mailto:coinsdata@guardian.co.uk)

Help fill in the joint Guardian and Where Does My Money Go? google spreadsheet

Jump to results

Output all as CSV

Reset search

Search:  go

All queries are filtered by what we believe to be the latest forecast of the amount spent in tax year 2009/10. This is only a forecast, the actual figures will only be known in September.

(Technically, filtered by data type "Forecast Outturn March" and data subtype "Forecast Outturn (Submitted)", removing zero values)

### Filter by department description

Armed Forces Retired Pay, Pensions etc (170)  
Cabinet Office (910)  
Cabinet Office: Civil superannuation (246)  
Charity Commission (58)  
Crown Estate Office (12)  
Department for Business Innovation and Skills (4985)  
Department for Business, Enterprise & Regulatory Reform: UKAEA pension schemes (51)  
Department for Children, Schools and Families (2641)  
Department for Communities and Local Government (6255)  
Department for Culture, Media and Sport (2707)  
Department for Environment, Food and Rural Affairs (4668)  
Department for International Development (2006)  
Department for International Development: Overseas Superannuation (72)  
Department for Transport (4004)  
Department for Work and Pensions (4073)  
Department of Energy and Climate Change (1041)  
Department of Health (1696)  
Electoral Commission (126)  
Export Credits Guarantee Department (185)  
Food Standards Agency (203)  
Foreign and Commonwealth Office (512)  
Government Actuary's Department (121)  
Government Equalities Office (139)

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## Coins publication is welcome – but not everyone will like results

There's a risk of tabloid-unfriendly projects being mauled, but it's still right for government spending to be transparent



Michael Cross  
guardian.co.uk, Friday 4 June 2010 13.35 BST  
Article history

A few years ago I helped the Department for International Development run a lavish international conference in Bangladesh, on the subject of migration. Its general conclusion was that migration is a good thing – remittances from migrant workers to their home countries far outstrip official aid, and, arguably, do more good.

I'm guessing that this is exactly the sort of jamboree the new government had in mind when, in opposition, it promised to open up the detailed ledgers of public spending. While I, and many real experts, might defend spending tens of thousands of taxpayer pounds promoting migration, it's not hard to see what the popular press would have made of it. Had they known about it.

In the new transparency age, ushered in today by the release of the first tranche of public data from the Treasury's jealously guarded Coins (Combined Online Information System), the migration conference would have had a very rough ride indeed.

In fact, in the current climate, the chances of funding it would be zero. Likewise, whole swathes of public spending that doesn't immediately fall into the categories politicians like to boast about – bobbies on the beat, hospital beds, etc.

Despite this danger, I'm heartily in favour of the opening of Coins along with itemised government spending data. It's the latest stage in a revolution that was beyond our wildest dreams when Charles Arthur and I launched the Guardian's Free Our Data campaign, four years ago.



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Comments (33)



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### Politics

Coins (Combined Online Information System) - Freedom of information

### Technology

Free our data

### UK news

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More from Comment is free on

### Politics

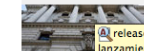
Coins (Combined Online Information System) - Freedom of information

### Technology

Free our data

### UK news

More on this story



Coins data release

the guardian  
**ACTIVATE 2010**  
Judges include:  
Esther Dyson, angel investor  
Anil Hansjee, Google  
Julie Meyer, Ariadne  
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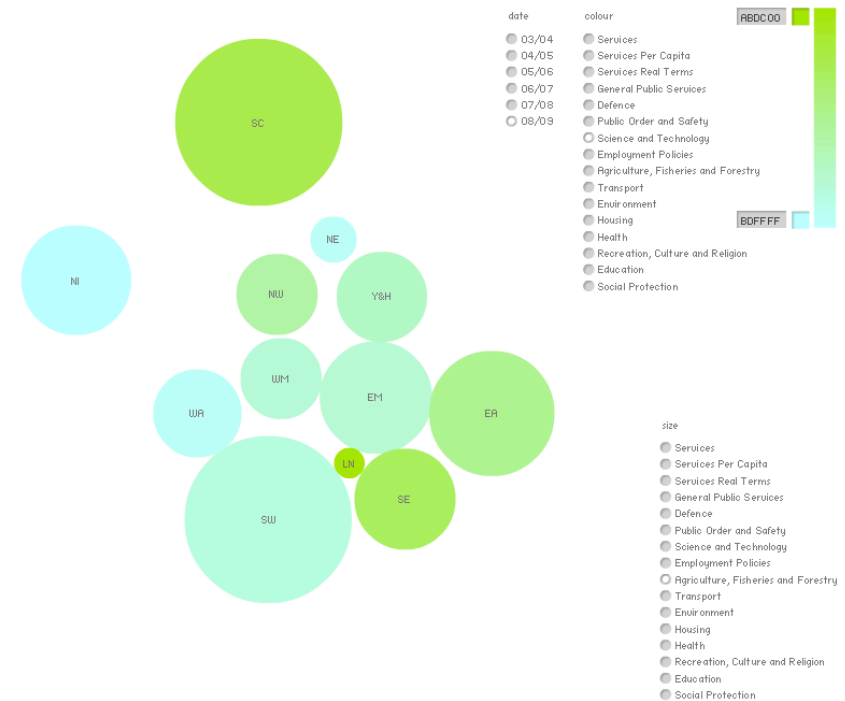
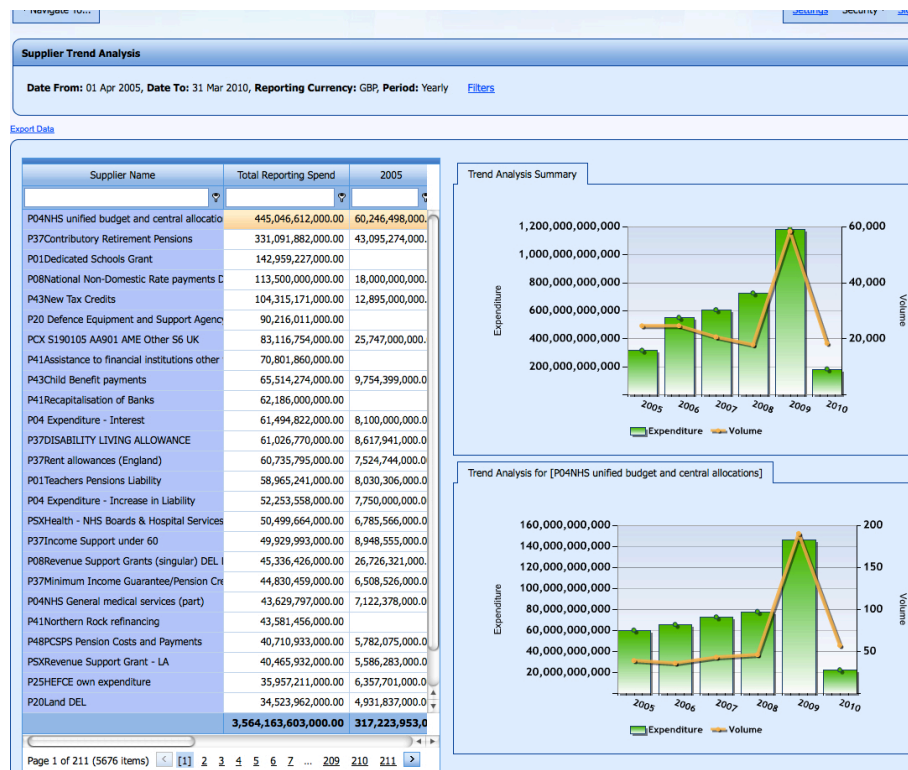
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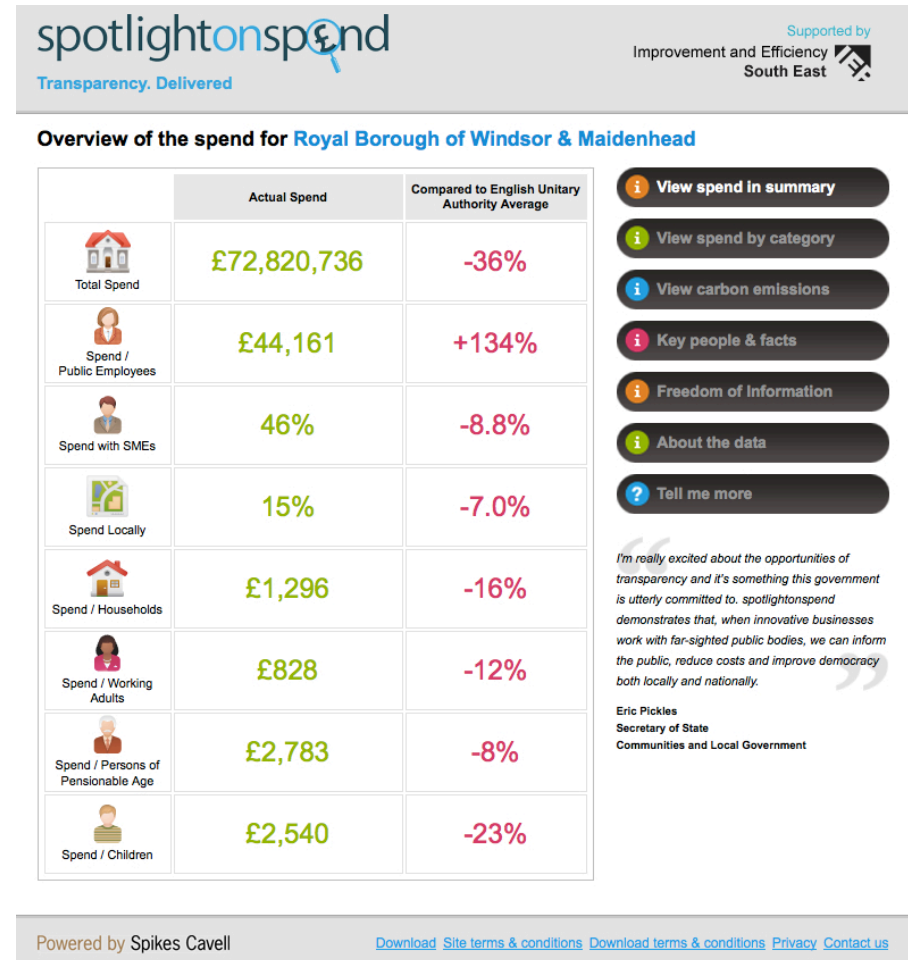
months free

# Making the argument Publish it...and the apps flow Innovation



# Making the argument Localism...

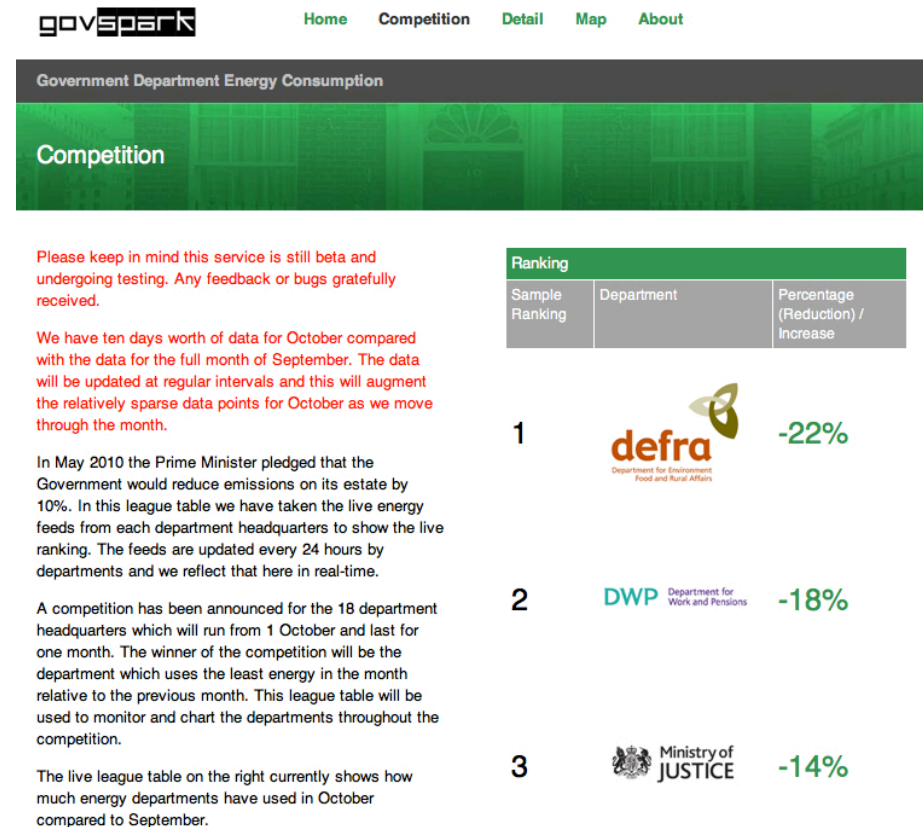
- New items of Local government spending over £500 – council by council from Jan 2011



# Making the argument

## Data to decisions - behaviour...

Real time energy data is  
changing behaviours – the  
decisions people make



# Individual Gov Depts can take a lead

"Now it's our turn. I don't believe in one rule for councils and one for this Department. Central Government spends billions of tax pounds every year and transparency at this level of spending is just as important."

"This Department, like the rest of Whitehall, needs to look at where every penny is going and getting this data out in the open will help that process." Eric Pickles 12-8-10



The screenshot shows the 'Communities and Local Government' website. The header includes the logo and a navigation bar with links like 'Corporate', 'Publications', 'Reports and summaries', etc. The main content area displays the title 'Communities and Local Government and arm's length bodies' spending data 2009-10', the publication date '12 August 2010', and the type 'Reports and summaries'. A 'Summary' section follows, detailing the commitment to transparency and the availability of the data. A 'Download' section at the bottom provides links to the PDF document.

**Communities and Local Government**

Corporate :: Publications :: Reports and summaries :: Communities and Local Government and arm's length bodies' spending data 2009-10

[www.communities.gov.uk](http://www.communities.gov.uk)

**Communities and Local Government and arm's length bodies' spending data 2009-10**

**Published** 12 August 2010

**Type(s)** Reports and summaries

**Site** Corporate

**Price** Free

**Summary**

**Payments to suppliers**

Communities and Local Government is fully committed to the Government's transparency agenda. In support of this we are pleased to publish data confirming the central Department's expenditure with suppliers for year 6 April 2009 to 5 April 2010. This data is provided in advance of our wider commitment to publish data via HM Treasury for publication on the data.gov.uk website later in the year. Our non-Departmental public bodies, agencies and executive agencies are making their own arrangements to publish data for the same period later this year.

The attached report is freely re-usable under the same terms as data.gov.uk (see link, top right).

If you have any enquiries relating to any of the data provided, please send an email to [procurementhelp@communities.gsi.gov.uk](mailto:procurementhelp@communities.gsi.gov.uk). Our staff will aim to provide a response to your enquiry within 10 working days. While we aim to be as transparent as we can, there may be some cases where we will need to withhold information that could be regarded as sensitive for commercial or security reasons, or to protect personal privacy.

**Future developments**

Publication of this information forms the first part of our ongoing commitment to be open and transparent with our expenditure information. Communities and Local Government will be publishing further information detailing our first quarter spend for 2010-11 with third-party suppliers by the end of September 2010, and will provide regular updates thereafter on this site.

**Order**

- This publication is only available online - see below to download.

**Download**

[Communities and Local Government group: Procurement expenditure 2009-10 - covering note](#)

PDF, 20 kb, 1 pages

[Communities and Local Government group: Procurement expenditure 2009-10](#)



# And more to come...

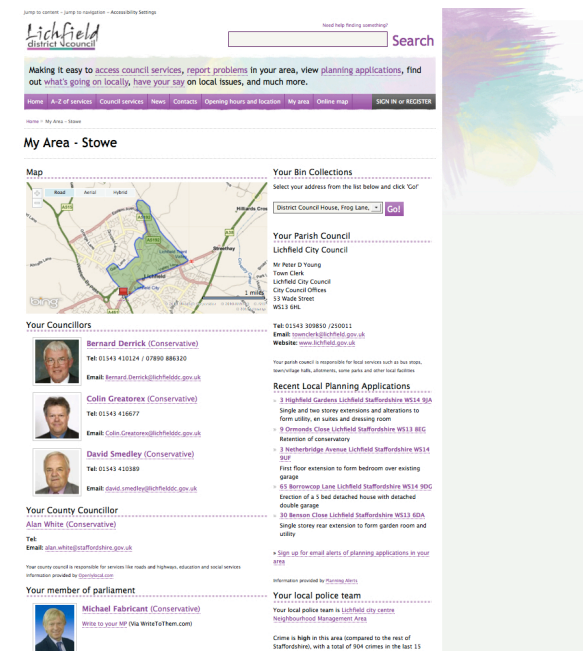
- New local government contracts and tender documents for expenditure over £500 to be published in full from Jan 2011
- ...information on senior salaries, names and job descriptions, councillor allowances and expenses, minutes and papers of council meetings, job vacancies that will enable people to see why council wage bills are so high and how many of the positions are for key local services frontline service data - including rubbish and recycling rates, council tax collection rates and detail of major planned projects data such as food hygiene reports for food outlets - information which is routinely collected and of interest to residents, but not currently shared in an easily accessible format
- Crime data to be published at a level that allows the public to see what is happening on their streets from Jan 2011

# Don't Forget the Local Perspective

## UK Local Data Panel: Current Activities

Working with new Transparency division on 3 key tasks

1. How to standardise local authority data and which data should be standardised as a priority
2. Assisting local authorities/public bodies to work through technical/ policy issues relating to making data openly available – in particular the Jan 2011 data release;
3. Encouraging citizens, developers, public and private sector organisations to access and exploit data provided by CLG and LAs



# Don't Forget the Local Perspective

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The screenshot displays the FixMyStreet website interface for Lichfield, Staffordshire. The page is organized into several sections:

- Local Representative:** Michael Fabricant (Conservative), MP for Lichfield, with a link to write to him.
- Your nearest schools:** Lists primary and secondary schools in the area.
- Your Nearest Library:** Lists the Lichfield Library.
- The Friary:** Lists the Lichfield Friary.
- Problems reported in Stowe:** Lists various issues like hedge needs trimming, new Tesco store, and broken concrete steps.
- Your nearest recycling centre:** Lists the Lichfield Recycling Centre.
- Opening Times:** Lists the opening times for the recycling centre.
- Local Health Services:** Lists the Lichfield Police Station and the nearest hospital.
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The right side of the page features a **Breakdown of crimes by month** bar chart, showing crime levels from May 2010 to April 2011. The chart indicates a peak in crime during the winter months.

Below the chart is a **Police officers in this team** section, listing officers like PCSO Jas Gill and PCSO Katie Page. It also mentions the **Your nearest police station** and a **Local Health Services** section.

The bottom section is titled **FixMyStreet** and includes a **Hedge needs trimming** report. It shows a photo of a hedge and a map of the area. The report is dated 13.09.2010 and is categorized as 'Hedge needs trimming'. It includes a description of the problem and a link to 'Report a problem'.

At the bottom, there is a **Provide an update** section with fields for Name, Email, and Update. It also includes a checkbox for 'This problem has been fixed' and a 'Post' button.

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Appendix i: CSV file format

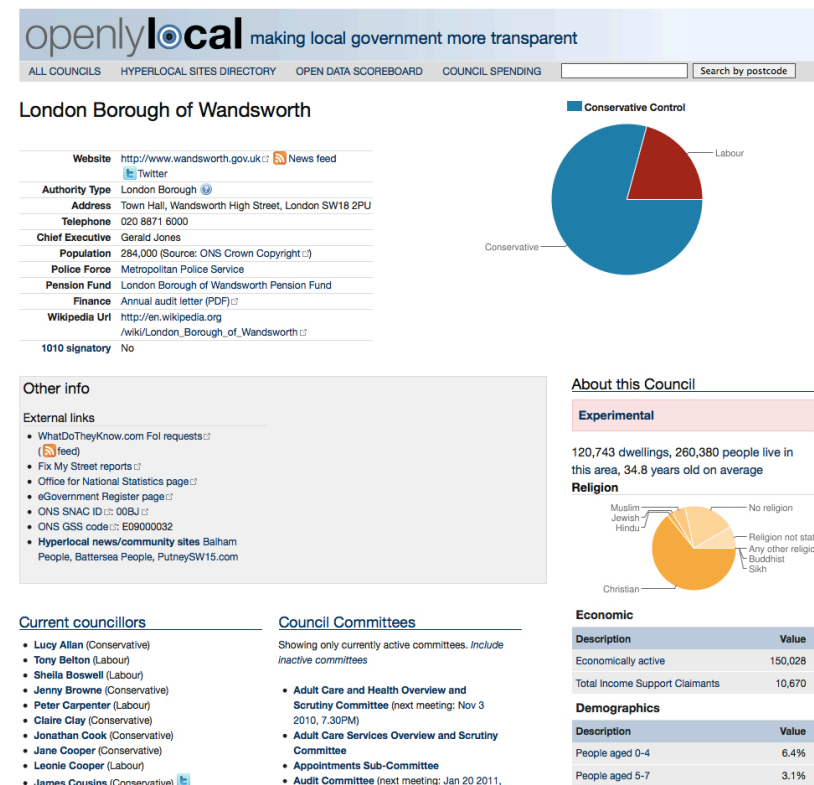
Column	Field Name	What Is Required	Reason For Inclusion	Additional Information	Inclusion status
1	Body	The <a href="http://statistics.data.gov.uk">statistics.data.gov.uk</a> URI that represents the authority, e.g. Lichfield District Council is <a href="http://statistics.data.gov.uk/id/local-authority/41UD">http://statistics.data.gov.uk/id/local-authority/41UD</a>	To allow the file to be self-describing	Using a URI to identify the body means that it is uniquely identifiable to data users. The GLA should use the URI <a href="http://data.ordnancesurvey.co.uk/id/7000000000041441">http://data.ordnancesurvey.co.uk/id/7000000000041441</a>	Mandatory
2	Body name	Name of the authority	Aids readability for casual reading		Mandatory
3	Date	The payment date as recorded in departments' purchase or general ledger.	To identify the date that cost the transaction took place.	If it is not possible to source data using the payment date invoice input date or invoice date may be used. The UK date format (DD/MM/YYYY) should be used. Leading zeros should be used where necessary so that the string is precisely 10 characters (e.g. 01/09/2010)	Mandatory
4	Transaction number	A unique reference number for each individual expenditure transaction	To act as a reference number when dealing with enquiries or FOI requests.	The transaction number used in departments' own systems may be used.	Mandatory
5	Invoice Number	The reference number for the invoice if it is recorded on the accounts system	To allow matching to invoices (one payment may be for several invoices, and one invoice may be settled by several payments)	Some councils have been discussing ultimately publishing invoices, and inclusion of this fields allows for an easy transition to this, should they do this.	Desirable
6	Amount	The actual value of the transaction	To identify the full cost of the transaction.	Amounts should be in sterling and inclusive of irrecoverable VAT. Values should be in pounds and pence. Each	Mandatory

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# Don't Forget the External Perspective

## Integrate other Open Data

The screenshot shows the MapTube website interface. At the top, there is a navigation bar with links: home, about, login, search, help, and casa. The MapTube logo is in the top right corner with the tagline "a place to put maps".

**Welcome to MapTube**  
MapTube is a free resource for viewing, sharing, mixing and mashing maps online. Created by UCL's Centre for Advanced Spatial Analysis, users can select any number of maps to overlay and view.

**QuickStart**  
Click any map below to view it. To select a combination of maps, use the Search page. More information is available in the Help section.

**Map of the Week**  
**Big Mac Index**  
This map illustrates how the price of a Big Mac varies across the world. View the Big Mac Index here

Showing records 1 to 12 of 128: ►►►

**Popular Maps** | **Recently Viewed** | **Latest Uploads**

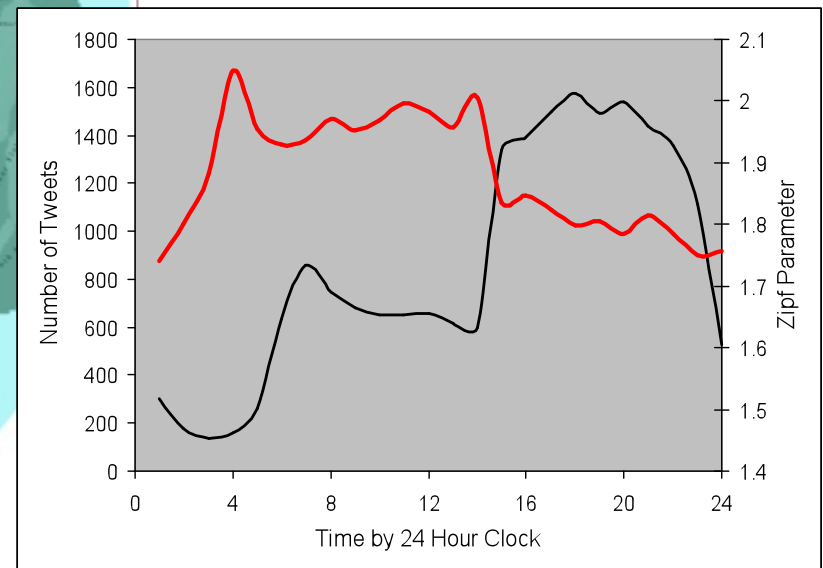
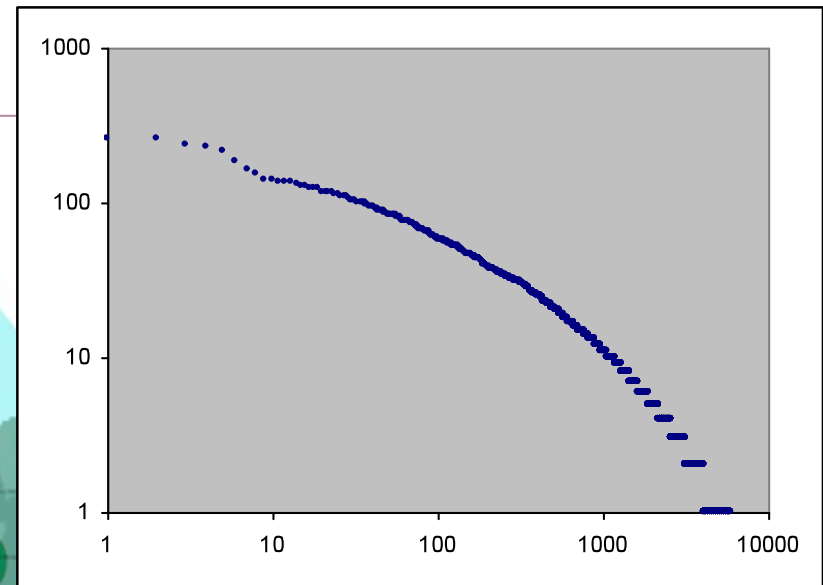
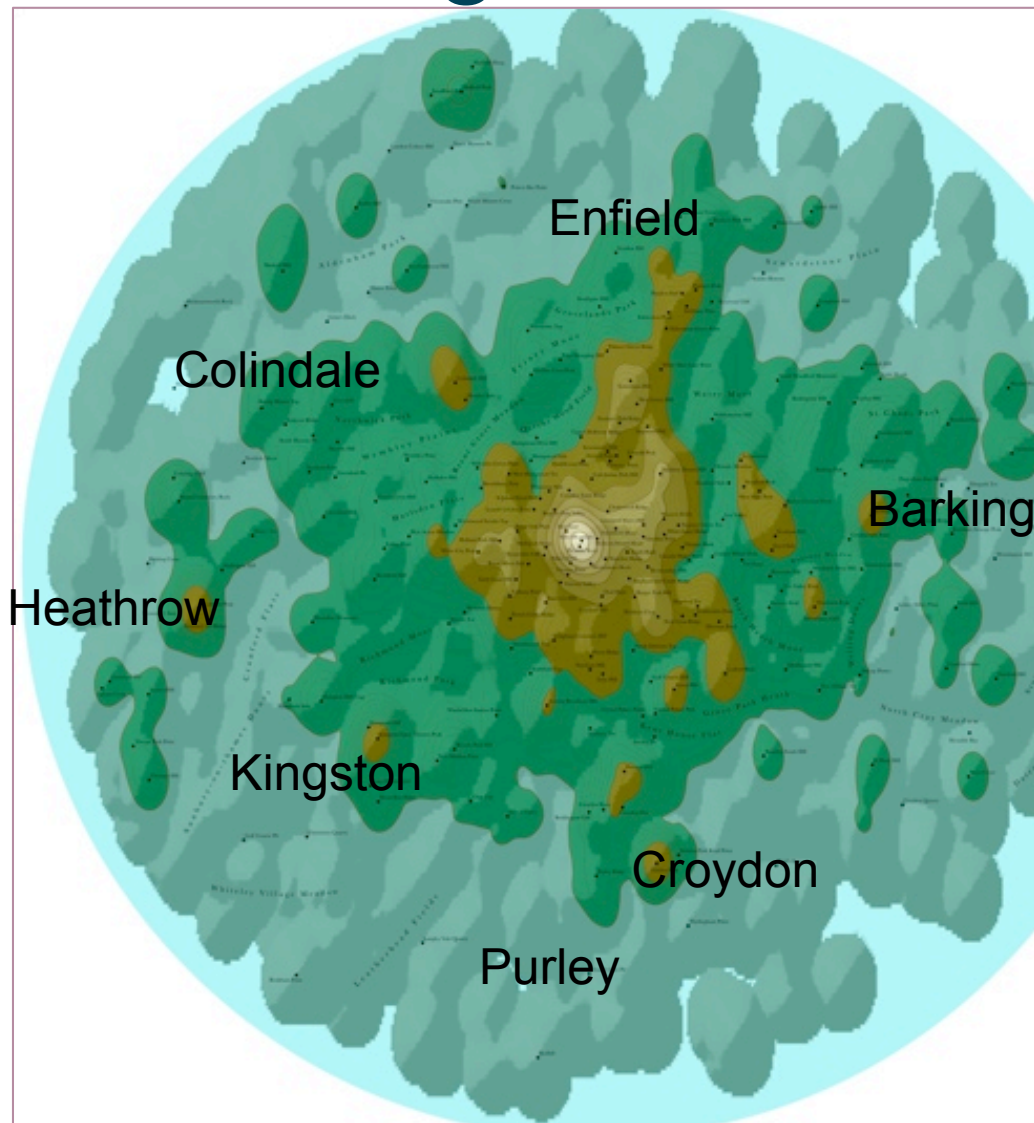
**Mapping the Credit Crunch**  
Radio 4: Mapping the Credit Crunch  
[more information](#)  
Viewed 15272 times

**London Tube Map**  
A map of the London Underground with geographically correct station positions taken from wikipedia.  
[more information](#)  
Viewed 7362 times

**BBC Look East: Anti-social Behaviour**  
Mapping anti-social behaviour in the eastern counties in conjunction with BBC Look East.  
[more information](#)

**Global MacDonalds Big Mac Prices 2007**  
Illustrates the local price (in USD) of a MacDonalds BigMac in various countries round the world.  
[more information](#)

# Twittering London



# Data Publishing – Star Quality

- ★ Put your data on the Web (any format)
- ★★ Make it available as structured data (e.g. Excel, CSV, instead of PDF)
- ★★★ Use open, standard formats (e.g. XML, RDF)
- ★★★★ Use URLs to identify things (so people and machines can point at your data)
- ★★★★★ Link your data to other people's data

# Making the case for 5★ Linked Data?

- National digital infrastructure being built
- URIs for schools, roads, bus stops, post codes, admin boundaries...
- Some of the data links across and connects other data together
- Key data link points exist

Ordnance Survey - Great Britain's national mapping agency

See all our sites Login

Enter keyword(s) Search

home business leisure map shop explore magazine education about us data

### Burghclere, Highclere and St. Mary Bourne

A description of the resource identified by <http://data.ordnancesurvey.co.uk/id/7000000000017789>

Label	Burghclere, Highclere and St. Mary Bourne
Name	Burghclere, Highclere and St. Mary Bourne
Type	<a href="#">District Ward</a>
Area	11445.724
Area code	DIW
Census code	24UBKE
Unit i d	17789
Borders	<a href="#">Harewood</a> <a href="#">Bourne Valley</a> <a href="#">Kingsclere</a> <a href="#">Overton, Laverstoke and Steventon</a> <a href="#">Alamein</a> <a href="#">Greenham</a> <a href="#">St. Mary's</a> <a href="#">Whitchurch</a> <a href="#">Falkland</a> <a href="#">East Woodhay</a> <a href="#">Kintbury</a>
Contains	<a href="#">Litchfield and Woodcott</a> <a href="#">St. Mary Bourne</a> <a href="#">Eccleswell, Sydmonton and Bishops Green</a> <a href="#">Burghclere</a> <a href="#">Highclere</a> <a href="#">Ashmansworth</a> <a href="#">Newtown</a>

The data for this description was obtained from the SPARQL service at <http://api.talis.com/stores/ordnance-survey/services/sparql>. This data is also available as: [RDF/XML](#), [Turtle](#) and [JSON](#). A free text search service is available at <http://api.talis.com/stores/ordnance-survey/items>

View this data using these other browsers:

- [Marbles](#)
- [Zitgist Data Viewer](#)
- [Disco](#)
- [Dipper](#)
- [OpenLink Data Explorer](#)

[Top of page](#)

Ordnance Survey is Great Britain's national mapping agency, providing the most accurate and up-to-date geographic data, relied on by government, business and individuals.

Ordnance Survey © Crown copyright 2009  
[Jobs](#) | [Help](#) | [Accessibility](#) | [Contact Us](#) | [Sitemap](#) | [Legal & Privacy](#)

# Making the case for 5★ Linked Data?

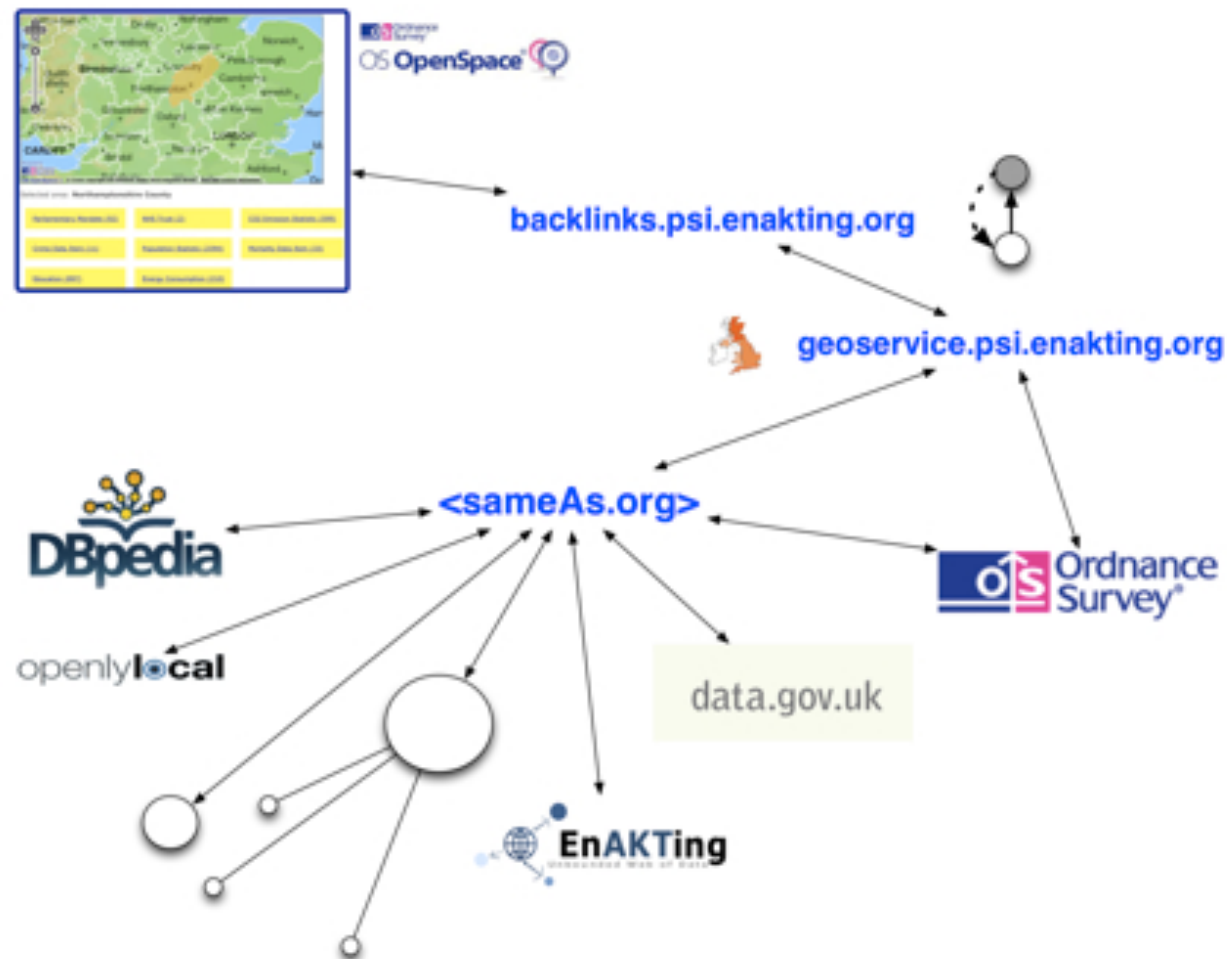
- National digital infrastructure being built
- URIs for schools, roads, bus stops, post codes, admin boundaries...
- Some of the data links across and connects other data together
- Key data link points exist

http://data.ordnancesurvey.co.uk/doc/7000000000017789.rdf		
Litchfield and Woodcott	label	Litchfield and Woodcott
Burghclere, Highclere and St. Mary Bourne	Area	11445.724
	Area Code	DIW
	Census Code	24UBKE
	Unit ID	17789
	borders	Greenham
		Falkland
		Kintbury
		Overton, Laverstoke and Steventon
		Harewood
		St. Mary's
		Whitchurch
		Kingsclere
		East Woodhay
		Bourne Valley
		Alamein
	contains	St. Mary Bourne
		Ecchinswell, Sydmonton and Bishops Green
		Newtown
		Burghclere
		Highclere
		Litchfield and Woodcott
		Ashmansworth
		District Ward
	type	Burghclere, Highclere and St. Mary Bourne
	label	Burghclere, Highclere and St. Mary Bourne
	name	Highclere
Highclere	label	Harewood
Harewood	label	Alamein
Alamein	label	Ecchinswell, Sydmonton and Bishops Green
Ecchinswell, Sydmonton and Bishops Green	label	Burghclere
Burghclere	label	Greenham
Greenham	label	St. Mary Bourne
St. Mary Bourne	label	Newtown
Newtown	label	Bourne Valley
Bourne Valley	label	District Ward
District Ward	label	East Woodhay
East Woodhay	label	Falkland
Falkland	label	Kingsclere
Kingsclere	label	Kintbury
Kintbury	label	St. Mary's
St. Mary's	label	Whitchurch
Whitchurch	label	Ashmansworth
Ashmansworth	label	Overton, Laverstoke and Steventon
Overton, Laverstoke and Steventon	label	http://data.ordnancesurvey.co.uk/doc/7000000000017789
http://data.ordnancesurvey.co.uk/doc/7000000000017789	Has Format	http://data.ordnancesurvey.co.uk/doc/7000000000017789.html
		http://data.ordnancesurvey.co.uk/doc/7000000000017789.json
		http://data.ordnancesurvey.co.uk/doc/7000000000017789.rdf
		http://data.ordnancesurvey.co.uk/doc/7000000000017789.ttl
		Linked Data for Burghclere, Highclere and St. Mary Bourne
		http://purl.org/dc/dcmitype/Text
	primary topic	Burghclere, Highclere and St. Mary Bourne
http://data.ordnancesurvey.co.uk/doc/7000000000017789.rdf	Format	application/rdf+xml
	Is Format Of	http://data.ordnancesurvey.co.uk/doc/7000000000017789
	Title	Linked Data in RDF/XML format for Burghclere, Highclere and St. Mary Bourne
	type	http://purl.org/dc/dcmitype/Text
		Document
	primary topic	Burghclere, Highclere and St. Mary Bourne
http://data.ordnancesurvey.co.uk/doc/7000000000017789.html	Format	text/html



# Joining up the dots...

<http://map.psi.enakting.org/how>



# Joining up the dots...

## <http://map.psi.backlinks.org/>

PSI BackLinking Service for the Web of Data  
powered by EnAKTing, [EPSRC EP/G008493/1](https://www.epsrc.ac.uk/Programme/EP/G008493/1)



<http://dbpedia.org/resource/Portsmouth>

(sameAs) <http://statistics.data.gov.uk/id/local-authority-district/00MR>

- [Further Education](#) (2)
- [Foundation School](#) (2)
- [LA Nursery School](#) (1)
- [Higher Education Institutions](#) (1)
- [Miscellaneous](#) (3)
- [Voluntary Controlled School](#) (2)
- [Other Independent School](#) (9)
- [Pupil Referral Unit](#) (7)
- [Community Special School](#) (11)
- [EY Setting](#) (144)
- [Voluntary Aided School](#) (6)
- [Community School](#) (67)
- [School](#) (514)
- [Playing for Success Centres](#) (2)

(sameAs) <http://data.ordnancesurvey.co.uk/id/7000000000037254>

- [CO2 Emission Statistic](#) (85)
- [Mortality Data Item](#) (3)
- [Road Energy Consumption](#) (30)

Other formats: [RDF](#) [TTL](#) [JSON](#)

[enable geographic containment](#) 

# EnAKTiNG EPSRC UoS Linked Data Project <http://myarea.psi.enakting.org/>

## How good is my area ?

feedback ... please [email us](#)

### Sources:

[statistics.data.gov.uk](#), [data.ordnancesurvey.co.uk](#),  
[IMD Database](#), [Boundary data from OS Open Data](#)

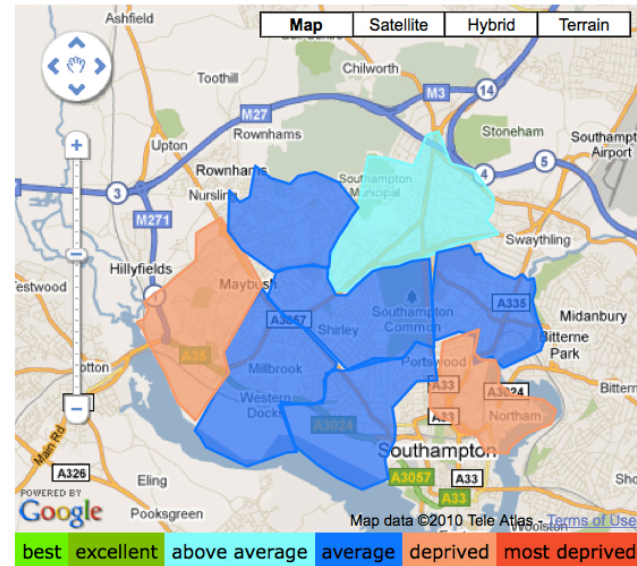
This is a **BETA** app developed in a [EnAKTiNG](#) hack day. It is built on top of Semantic Web technologies and Linked Data.

It displays a region and its surroundings showing how good are those areas based on the [IMD database ranking](#).

shirley

find

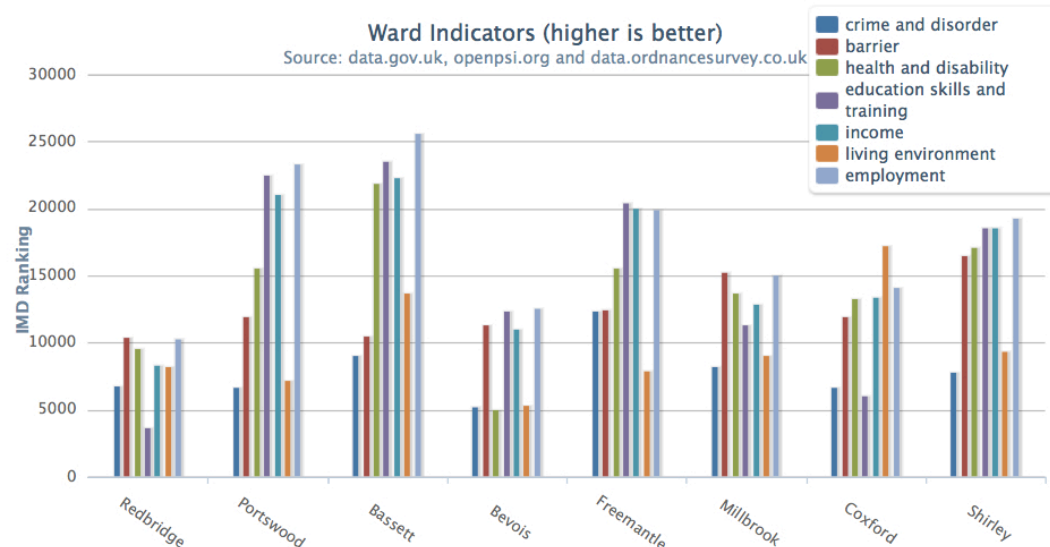
introduce an area name i.e: Portswood, Chilworth, Camden, ...



Area: Bevois

## Ward Indicators (higher is better)

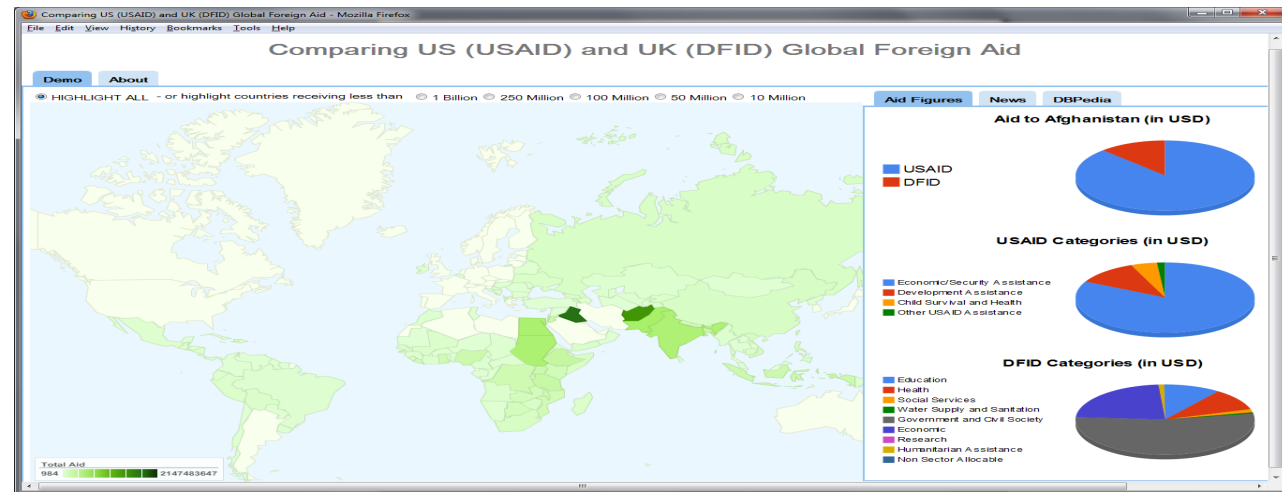
Source: [data.gov.uk](#), [openpsi.org](#) and [data.ordnancesurvey.co.uk](#)



[group by area](#)

# Global Open Government Linked Data

This application presents a mashup of foreign aid data (represented in US Dollars) from the United States Agency for International Development (USAID) and UK Department for International Development (DFID) for the 2007 US Fiscal Year.



Users may retrieve foreign aid data for specific countries by clicking on a provided world map (shaded based on total combined contributions for USAID and DFID). Upon clicking on a desired country, three kinds of information are presented: Aid Figures, New York Times news, and wikipedia description.

<http://data-gov.tw.rpi.edu/demo/linked/aidviz-1554-10030.html>

**Aid Figures** | News | DBpedia

**Pakistani Refugees Pour Into Afghanistan**  
2008-09-30

**Bush Administration Reviews Its Afghanistan Policy, Exposing Points of Contention**  
2008-09-23

**In Afghanistan, British Leader Shows Support**  
2008-08-22

**Donors Press Afghanistan On Corruption**  
2008-06-13

**5 Dead in Attack on Mine-Clearing Team in Afghanistan**  
2008-03-25

**Kidnapping Prompts Rally By 500 Women In Afghanistan**  
2008-01-30

**4 Red Cross Workers Kidnapped in Afghanistan While Seeking Hostages' Release**  
2007-09-28

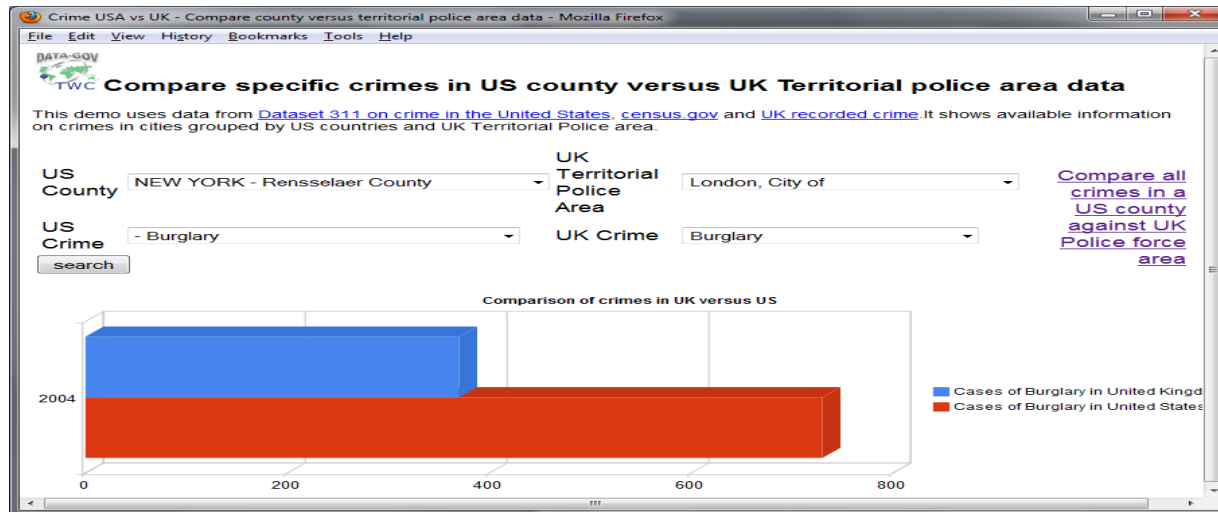
**WORLD BRIEFING | ASIA: Afghanistan: German Hostage In Tv Plea**  
2007-08-24

**WORLD BRIEFING | ASIA: Afghanistan: Kidnap Motive Was Ransom**  
2007-08-21

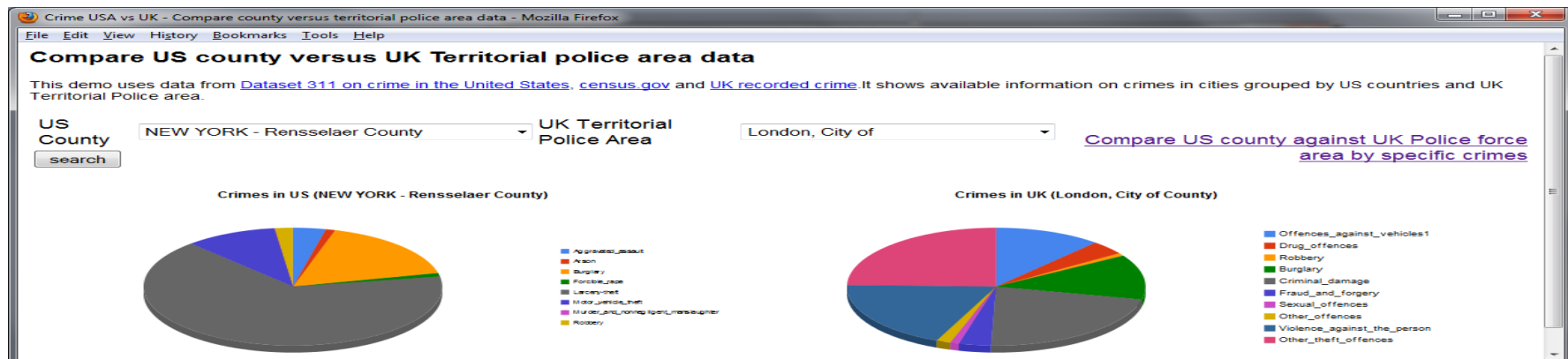
**Aid Figures** | News | DBpedia

**About Afghanistan**  
The Islamic Republic of Afghanistan is a landlocked country in south central Asia. It is variously described as being located within South Asia, or the Middle East. It is bordered by Iran to the west, Pakistan to the south and east, Turkmenistan, Uzbekistan, and Tajikistan to the north, and China in the far northeast. Afghanistan is a crossroads between the Eastern world and the Western world and was an ancient focal point of the Silk Road and Human migration. It has an important geostrategic location connecting South and Central Asia and Middle East. Because of this, it has been a target of various invaders and conquerors, as well as a from which local powers invaded surrounding regions to form their empires. Ahmad Shah Durrani created the Durrani Empire in 1747, considered the beginning of modern Afghanistan. Subsequently, the country was shifted to Kabul and most of its territories ceded to former neighboring countries. In the late 19th century, Afghanistan became a buffer state in "The Great Game" played between the British Indian Empire and the Russian Empire. On August 19, 1919, following the European influence in Afghanistan, the Third Anglo-Afghan War and Independence, the country regained full independence from the United Kingdom. Since the late 1970s, Afghanistan has suffered from a brutal civil war in addition to foreign interventions of the Soviet Union and the 2001 US-led invasion that toppled the Taliban government. In late 2001 the United Nations Security Council authorized the creation of an International Security Assistance Force (ISAF) composed of NATO troops.

# Global Open Government Linked Data



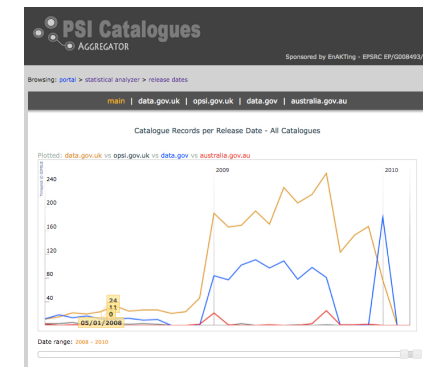
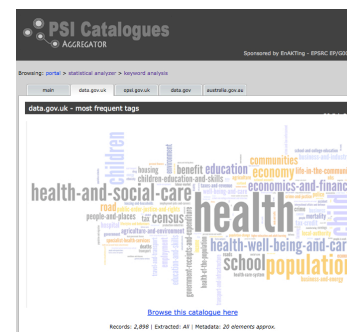
This demo uses data from [Dataset 311 on crime in the United States, census.gov](#) and [UK recorded crime](#). It shows available information on crimes in cities grouped by US countries and UK Territorial Police area.





# Competition and Collaboration

- Friendly competition is energising
- Collaboration enables learning and sharing best practice
- Provides external validation
- Offers even great opportunities for data exploitation



# Culture Shifts

## What needs to happen

Public bodies – need clear, published commitments on releasing data, and there needs to be consistency between similar bodies

OGD needs to extend through central Government into local government and the other public services

National agencies need always to publish for re-use the underlying data for web services that they supply e.g. in UK Directgov, NHS Choices

Bodies should proactively release data, but there should also be the ability to challenge bodies to release more.

Nurture the Open Data Community and learn from the successes of efforts like [data.gov.uk](http://data.gov.uk) and [data.gov](http://data.gov)

Spend resources on action not reportage and support activities which would add new value to data.

Localism - support community activism and "hyper locality" in using this information and help integration with community networks - e.g. civic society services

Give support, encouragement and targeted funding to people developing innovative software and services which use public data.

# Types of Challenge

- Cultural & Organisational
  - Data hugging
  - We have released it - sort of...
  - License impediments
  - Legacy commitments
- Worries about
  - Confidentiality
  - How it will be Interpreted
  - Quality of Information
  - Lost value
  - Disrupted workflow
  - New IT procurement
- Capability
  - What assets have we got
  - Who can do this work
  - How to share best practice
- Policy
  - Extending the principle to all agencies and public bodies
  - Consistency in what is published and its format
  - Range of exceptions do need to be appreciated
  - Confidentiality, accuracy, liability and reputation

# Why Open Government Data matters

More transparency

what is going on?

More accountability

is this acceptable?

More localism

it matters to me, my family,  
my locale

More economic/social capital

generates opportunities

More engagement

supports participation to  
exploit and improve data

More debate

data for evidenced based  
policy