

Use and abuse of citizen data

**ScotSoft 2011 – Global Forum
Global Challenges – Technology Solutions
29th September 2011**

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Issues to be covered

- **What do we mean by citizen data?**
- **Perils of “anonymisation”**
- **Concerns over control and access.**
- **The need for “Privacy Enhancing Technologies”**
- **UK Cabinet Office report**
- **Final thoughts.**

What do we mean by “Citizen Data”

- **Non-personal data (e.g. mapping info)?**
- **Individual records (e.g. health records)?**
- **Individual genomic information?**
- **Aggregated information (e.g. league tables)?**

mysociety – “FixMyStreet” webservice

Report, view, or discuss local problems

(like graffiti, fly tipping, broken paving slabs, or street lighting)

Enter a nearby GB postcode, or street name and area:
Or [locate me automatically](#)

How to report a problem

1. Enter a nearby GB postcode, or street name and area
2. Locate the problem on a map of the area
3. Enter details of the problem
4. We send it to the council on your behalf

970
reports in
past week

1,848
fixed in past
month

160,528
updates on
reports

Recently reported problems



- [Street Sign](#) 18:46 today
- [Litter in Cowper Street, Northampton](#) 18:45 today
- [Various flytipping](#) 18:43 today
- [Litter in Cowper Street, Northampton](#) 18:33 today
- [New Streetlights](#) 18:15 today

Built by [mySociety](#) | [Contact FixMyStreet](#)

Mobile apps: [iPhone](#), [StreetReport \(iPhone\)](#) | [Android](#) | [Nokia](#)

Are you from a council? Would you like better integration with FixMyStreet? [Find out about FixMyStreet for councils.](#)

Are you a developer? Would you like to contribute to FixMyStreet? Our code is open source and [available on GitHub.](#)

“FixMyStreet” Example of Scotland IS

To **report a problem**, simply click on the map at the correct location. If you cannot see the map, [skip this step](#).

Problems in this area

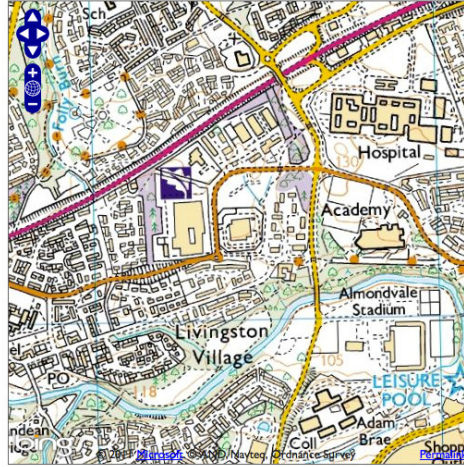
[Email me new local problems](#) | [RSS feed](#) 

Reports on and around the map

- [State of Concrete Frog](#) 15:05, 17 Sep 2011
- [Street lamp out](#) 20:47, 8 Aug 2011 (fixed)
- [Abandoned car - no valid tax](#) 15:53, 19 Jul 2011 (fixed)
- [Smoking in Non-Smoking Area](#) 09:24, 13 Jul 2011
- [Dumped Rubbish Bags](#) 07:56, 24 May 2011 (fixed)
- [Fire and litter](#) 08:43, 3 May 2011 (fixed)
- [Dog waste bin set on fire](#) 08:37, 3 May 2011 (fixed)
- [Damage to road surface](#) 08:35, 21 Apr 2011 (fixed)
- [Broken raised Kirb](#) 17:47, 2 Apr 2011 (fixed)

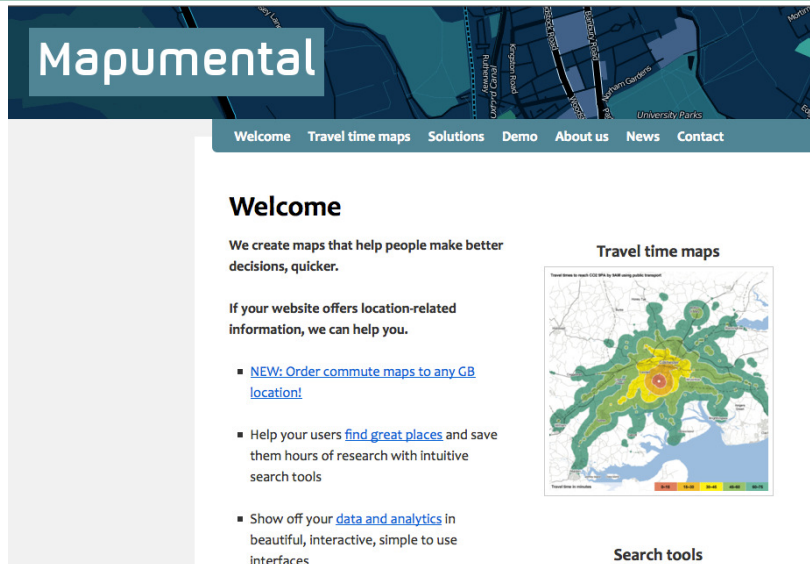
Closest nearby problems (within 11.1km)

- [Disabled Access](#) 15:07, 9 Sep 2011, 1.8km
- [Missing manhole cover](#) 20:10, 7 Aug 2011, 1.8km
- [Selfish neighbour](#) 09:40, 12 Apr 2011, 1.9km (fixed)
- [Commercial Vehicles](#) 20:30, 14 Jun 2011, 2.0km
- [Street light out](#) 23:33, 27 Jul 2011, 2.1km
- [Blocked drain](#) 12:38, 17 Sep 2011, 2.1km
- [Pothole now damage Footpath](#) 21:14, 24 Aug 2011, 2.1km (fixed)
- [Street light out](#) 21:02, 16 Sep 2011, 2.1km (fixed)
- [Missing manhole cover](#) 20:56, 24 Aug 2011, 2.1km



[Hide pins](#) | [Include stale reports](#)

mysociety – “Mapumental” webservice



Mapumental

Welcome Travel time maps Solutions Demo About us News Contact

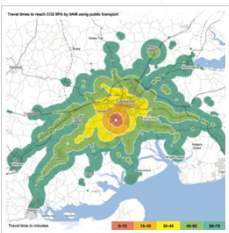
Welcome

We create maps that help people make better decisions, quicker.

If your website offers location-related information, we can help you.

- [NEW: Order commute maps to any GB location!](#)
- Help your users [find great places](#) and save them hours of research with intuitive search tools
- Show off your [data and analytics](#) in beautiful, interactive, simple to use interfaces

Travel time maps



Search tools

London commuting time mapping

mysociety.org

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Search

Mapumental

Mapumental is a travel-time mapping tool, built in collaboration with 4iP, which can help people work out where to live, where to find a job, or where to go on holiday.

How does it work?

If you're house-hunting, find the right areas for an easy commute

No more stressing over the tube map, trying to work out where you can afford a property and still get to work in less than 25 minutes – we'll make a map that shows you only the areas that match your acceptable criteria.

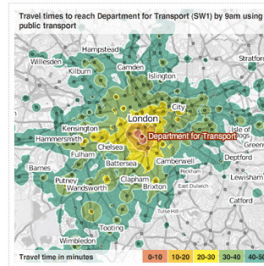
Choose your preferred form of transport

Want to get to work by any form of transport except the tube? No problem. Prefer trains to buses? Factor that in. Want to know the quickest way by any means? We can do that too.

Are you an estate agent? Jobs site? Tourist office? Retail business?

Visit the [Mapumental website](#) now to discover how we can help you differentiate yourself from your competitors with visually stunning and genuinely useful maps.

Mapumental works for train, tube, ferry, tram and bus journeys, and covers the whole of the UK.



The Chartered Institute for IT Source: mysociety.org
<http://www.mysociety.org/projects/mapumental/>

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The Chartered Institute for IT

The challenge of genuine anonymisation

A seminal paper:

BROKEN PROMISES OF PRIVACY: RESPONDING TO THE SURPRISING FAILURE OF ANONYMIZATION

Paul Ohm - Associate Professor, University of Colorado Law School

Computer scientists have recently undermined our faith in the privacy protecting power of anonymization, the name for techniques that protect the privacy of individuals in large databases by deleting information like names and social security numbers. These scientists have demonstrated that they can often “reidentify” or “deanonymize” individuals hidden in anonymized data with astonishing ease. By understanding this research, we realize we have made a mistake, labored beneath a fundamental misunderstanding, which has assured us much less privacy than we have assumed. This mistake pervades nearly every information privacy law, regulation, and debate, yet regulators and legal scholars have paid it scant attention. We must respond to the surprising failure of anonymization, and this Article provides the tools to do so...

The UK Government's "Open Data" Initiative

A balance needs to be struck...

“The Open Data initiative can bring real benefits. However ministers should focus on publishing non-personal data, and avoid getting dragged into old tussles about third-party access to personal data that will lead to public privacy failures – which, like the HMRC debacle, will undermine public trust. The correct application of openness to personal data is this: when a department proposes to make personal data available in some de-identified form, the proposal should be published in detail for open review, perhaps with the personal data of 100 government MPs “de-identified” under the scheme – so that we citizens can kick the tyres and point out the flaws before our own data are put at risk.”

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Recent questions in the European Parliament

In question 08241/2011 on privacy, and the rights of telephone users to obtain information from their network providers, Charles Tannock (ECR, UK) asked the Commission whether it could confirm: (1) that under EU law all telecoms operators must keep records of the origin and destination of all calls made from and into the EU for at least six months; (2) that telecoms operators were, indeed, in a position to provide this information to their subscribers; (3) that there is no legal impediment in EU law that would prevent them from doing so.

In question 8166/2011 on Right to privacy, Aldo Patriciello (PPE, Italy) asked the Commission whether it intends to set up some kind of service with which to assist individual citizens who wish to request the deletion of their personal information from databases, where such data were illegally collected.

“In question 8242/2011 on use of the Data Protection Act by insurance companies to obtain patients’ medical records, Charles Tannock (ECR, UK) asked the Commission whether it believed that it was proper for insurance companies to insist that policyholders surrender access to all their medical records when taking out a policy and whether the Commission believed that legislation was needed in order to prevent abuse or, at least, an unnecessary violation of privacy given the sensitivity of personal records of this kind.”

mysociety – “WhatDoTheyKnow”

mysociety.org



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[WhatDoTheyKnow](#) has been built to help you get information out of government departments and agencies. It's your right under the Freedom of Information Act to request information from any public body – and they have to respond. So we built a site to make it easy to do so.

Just [visit](#), pick a department, type a request, and we'll handle the rest.

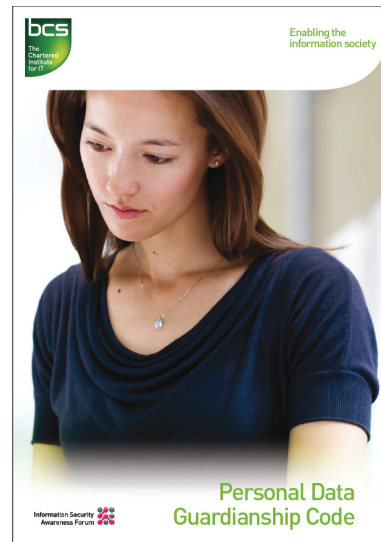
Even better, [WhatDoTheyKnow](#) is an [archive of requests](#) and responses made by other people, so you can search for information other people have found, or even set up email or RSS alerts to get notified when something comes in that you're interested in.

Want to keep up with our latest news? You can read recent [blog posts](#) about WhatDoTheyKnow below, follow us [on Twitter](#) or like us [on Facebook](#).



Personal Data Guardianship Code

Every organisation which handles personal data should have in place specific rules and procedures that protect the rights of data subjects. This Personal Data Guardianship Code is intended to help organisations and the people in them who handle personal data understand their individual responsibilities. It aims to promote best practice and provide 'common sense' guidance, in the same way that the Highway Code provides guidance to motorists to enable them to drive safely for the benefit of both themselves and other road users. This is a code of good practice that encompasses discharging your legal duties. It will also help the general public understand how to protect their personal data.



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Dahgstuhl Manifesto: Online Privacy: Towards Informational Self-Determination on the Internet

Abstract:

While the collection and monetization of user data has become a main source for funding “free” services like search engines, online social networks, news sites and blogs, neither privacy-enhancing technologies nor its regulations have kept up with user needs and privacy preferences. The aim of this Manifesto is to raise awareness for the actual state of the art of online privacy, especially in the international research community and in ongoing efforts to improve the respective legal frameworks, and to provide concrete recommendations to industry, regulators, and research agencies for improving online privacy. In particular we examine how the basic principle of informational self-determination, as promoted by European legal doctrines, could be applied to infrastructures like the internet, Web 2.0 and mobile telecommunication networks...

The challenge of Identity Assurance (IDA)

The success of the government's "digital by default" agenda, a central drive in its ICT strategy, will depend to a large extent on how comfortable the public feels in transmitting personal data online.

Identity assurance (IDA) will play a central role for the government in delivering digital public services - seen as an important way to cut the cost of the public sector. IDA is the process citizens will need to go through to verify who they are to access public services online. Part of the government's remit under the IDA project is to create a market of private sector identity assurance services to enable access. Individuals will be given the option to choose a certified private sector company to assure their identity, which will be used to confirm their personal data, in a manner analogous to how an e-commerce provider turns to credit card companies to assure you are the registered cardholder.

Kathleen Hall – Computer Weekly 13th September 2011



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UK Cabinet Office Report: Transparent Government, Not Transparent Citizens (1)

Conclusions:

- Privacy is extremely important to transparency. The political legitimacy of a transparency programme will depend crucially on its ability to retain public confidence. Privacy protection should therefore be embedded in any transparency programme, rather than bolted on as an afterthought.
- Privacy and transparency are compatible, as long as the former is carefully protected and considered at every stage.
- Under the current transparency regime, in which public data is specifically understood not to include personal data, most data releases will not raise privacy concerns. However, some will, especially as we move toward a more demand-driven scheme.

UK Cabinet Office Report: Transparent Government, Not Transparent Citizens (2)

Conclusions:

- Discussion about deanonymisation has been driven largely by legal considerations, with a consequent neglect of the input of the technical community.
- There are no complete legal or technical fixes to the deanonymisation problem. We should continue to anonymise sensitive data, being initially cautious about releasing such data under the Open Government Licence while we continue to take steps to manage and research the risks of deanonymisation. Further investigation to determine the level of risk would be very welcome.
- There should be a focus on procedures to output an auditable debate trail. Transparency about transparency – metatransparency – is essential for preserving trust and confidence.

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Final thoughts

- **Ministers wish to publish much more government data is largely welcome and could support new businesses and services.**
- **It would be foolish to snatch defeat from the jaws of victory by release of poorly anonymised personal data, even if for apparently good motives – such as support for medical research.**
- **There are better models for the use of anonymisation – such as “Differential Privacy” - but they are not widely adopted.**

End note

It does not require new technology to make a thorough going mess...

Oh dear...!

