# Put in your postcode, out comes the data

**Tim Berners-Lee and Nigel Shadbolt**
November 18 2009 12:01AM

Imagine all that information gathered by government. Soon it will available – helpfully linked up

We all recognise the power of information. It guides our behaviour and decisions. It tells us when the trains run and when the roads are jammed, how schools, hospitals and police are performing. We live in an age in which the essential raw material is information; data with a context. It underpins our economy and our society.

Data has a particular value in that you can combine it with other data to discover new things. When in 1854 John Snow took the deaths from a cholera outbreak in London and plotted them on a map, he was able to illustrate the connection between the quality of the source of water and cholera — the world changed. In March the Department for Transport released three years' worth of data about the location of accidents involving cyclists. Within 24 hours someone had converted this data to create cycle-accident route planners that avoid the black spots.

Government data is a valuable resource that we have already paid for. We are not talking about personal data but data that tells us, for example, about the amount and type of traffic on our roads, where the accidents are, how much is spent on areas where these accidents occur. This is data that has already been collected and paid for by the taxpayer, and the internet allows it to be distributed much more cheaply than before. Governments can unlock its value by simply letting people use it. This is beginning to happen in a number of countries, notably in the US under the Obama Administration, and in June Gordon Brown asked us to advise the Government on how to make rapid progress here.

In our work as government information advisers we are laying out the benefits of publishing non-personal public data for reuse, in formats that computers can "read" and without restrictive licences. Making this happen does not require a huge new IT project or complicated technology. We just need to change the culture of Whitehall and town halls so that data is seen as public property. At present too much is hidden from public view, compartmentalised into silos and difficult to process.

We have made progress since our appointments. Information about your locality is crucial for people wanting to use and make sense of government data. Yesterday the Prime Minister announced at a meeting with us that data from Ordnance Survey maps would be made available online free of charge.

The Cabinet Office has also launched a developer's version of a website — known as data.gov.uk — which will be publicly launched at the start of next year. It is home to more than 1,100 datasets ranging from traffic counts on the road network, through reference data on schools to the Farm Survey. More than 1,000 people are helping us to put the site through its paces.

We have demonstrated that we can integrate a whole range of data about your postcode — ranging from crime statistics to recycling, from travel times and timetables to adult education and healthcare provision. We have shown that freeing data is practical and economic to do.

As all of this data becomes available, we have to look for the joins between it. A new set of standards for the web is emerging that allows us to link data from different sources. Everyone knows that web pages have addresses that identify them, allowing you to navigate around and find what you want. To make the web of linked open data work we also need to give identifying addresses to the objects and properties that make up the basic information in pages, spreadsheets or databases.

Think about the practical applications. If Companies House referred to companies using these new open, uniform identifiers, then other people who needed to talk about companies could use these whenever they referred to a company. If all websites that make data available about companies point to the same identifier for a company, then it's possible to pull that data together very easily — whether its

data about stock price, a product or a director. This is one of the core principles at the heart of the web of linked data.

None of this works unless the data is there in the first place. But when it is, innovation flourishes. Maybe someone uses the web to show schools close to you and their Ofsted reports, or the planning applications that might affect you, or the allotments available to use, or the crime rates in your area. Data is beginning to drive the Government's websites. But without a consistent policy to make it available to others, without the use of open standards and unrestrictive licences for reuse, information stays compartmentalised and its full value is lost.

Openly available public data not only creates economic and social capital, it also creates bottom-up pressure to improve public services. Data is essential in enabling citizens to choose between public service providers. It helps them to compare their local services with services elsewhere. It enables all of us to lobby for improvement. Public data is a public good.

**Sir Tim Berners-Lee invented the World Wide Web and is director of the World Wide Web Consortium; Nigel Shadbolt is Professor of Artificial Intelligence at the University of Southampton**