



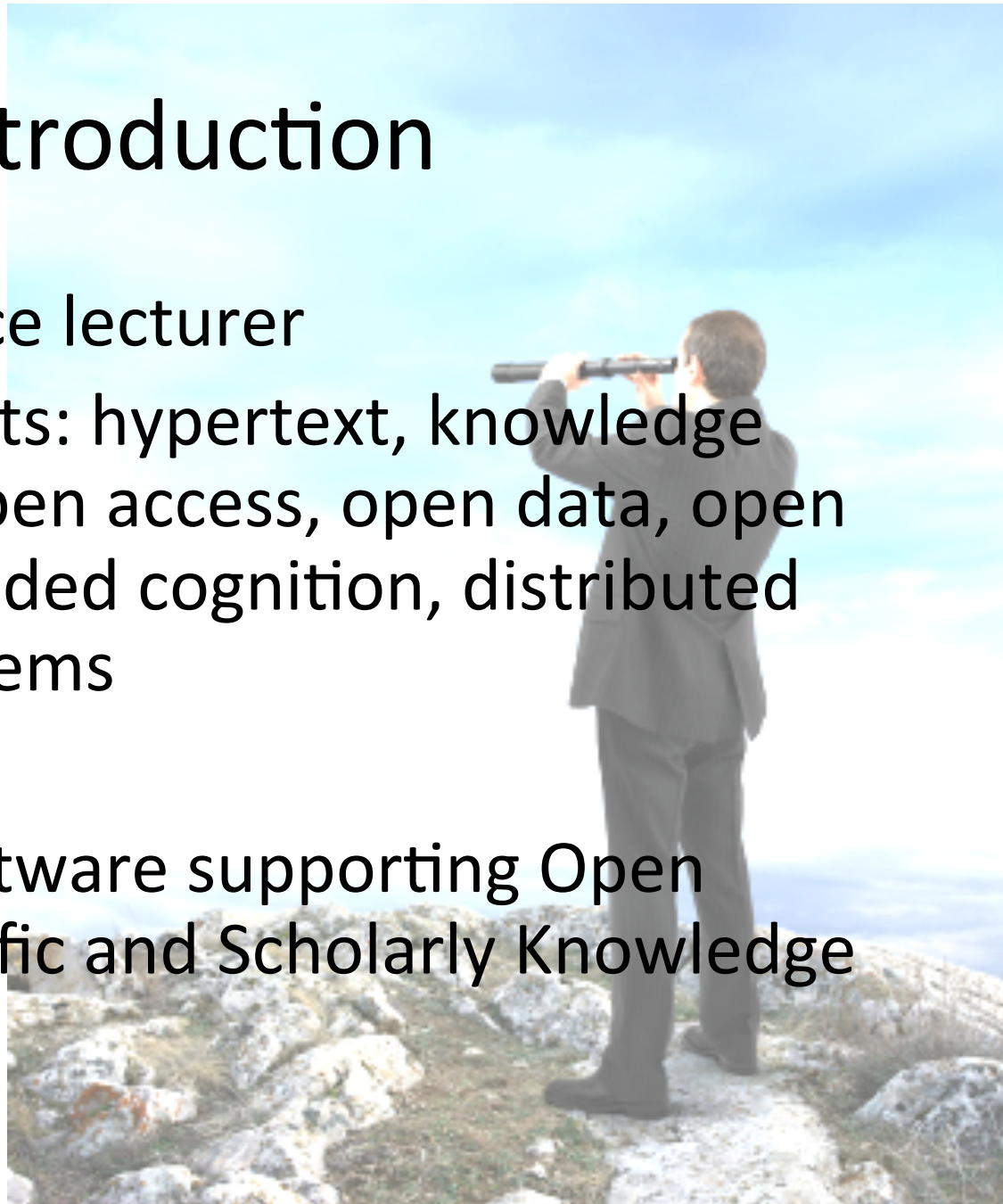
# Data, Government and the Open Web

Photo by Flickr user 'nex230' <http://www.flickr.com/photos/listing/3924144506/>

**Dr Leslie Carr,**  
**Web Science Doctoral Training Centre & EPrints Open Access Software Centre**  
**Web and Internet Science Research Group,**  
***University of Southampton, UK***

# Introduction

- Computer Science lecturer
- Research interests: hypertext, knowledge management, open access, open data, open education, extended cognition, distributed information systems
- The Web!
- Open Source software supporting Open Access to Scientific and Scholarly Knowledge
  - EPrints

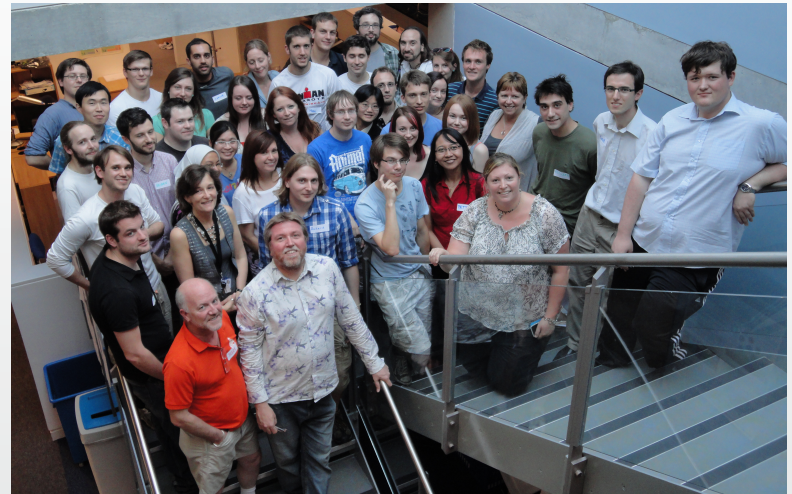




# Web & Internet Science Research Group



- 20 faculty, 70 PhDs, 60 masters
- Masters courses in
  - Web Science
  - Web Technology
- Doctoral Training Centre



# Why Web Science Matters

The Web has become an  
essential part of humanity

an essential  
part of the  
current and  
future  
economy,  
science and  
technology

- *Understanding the Web is a challenge as big as any other global cause*

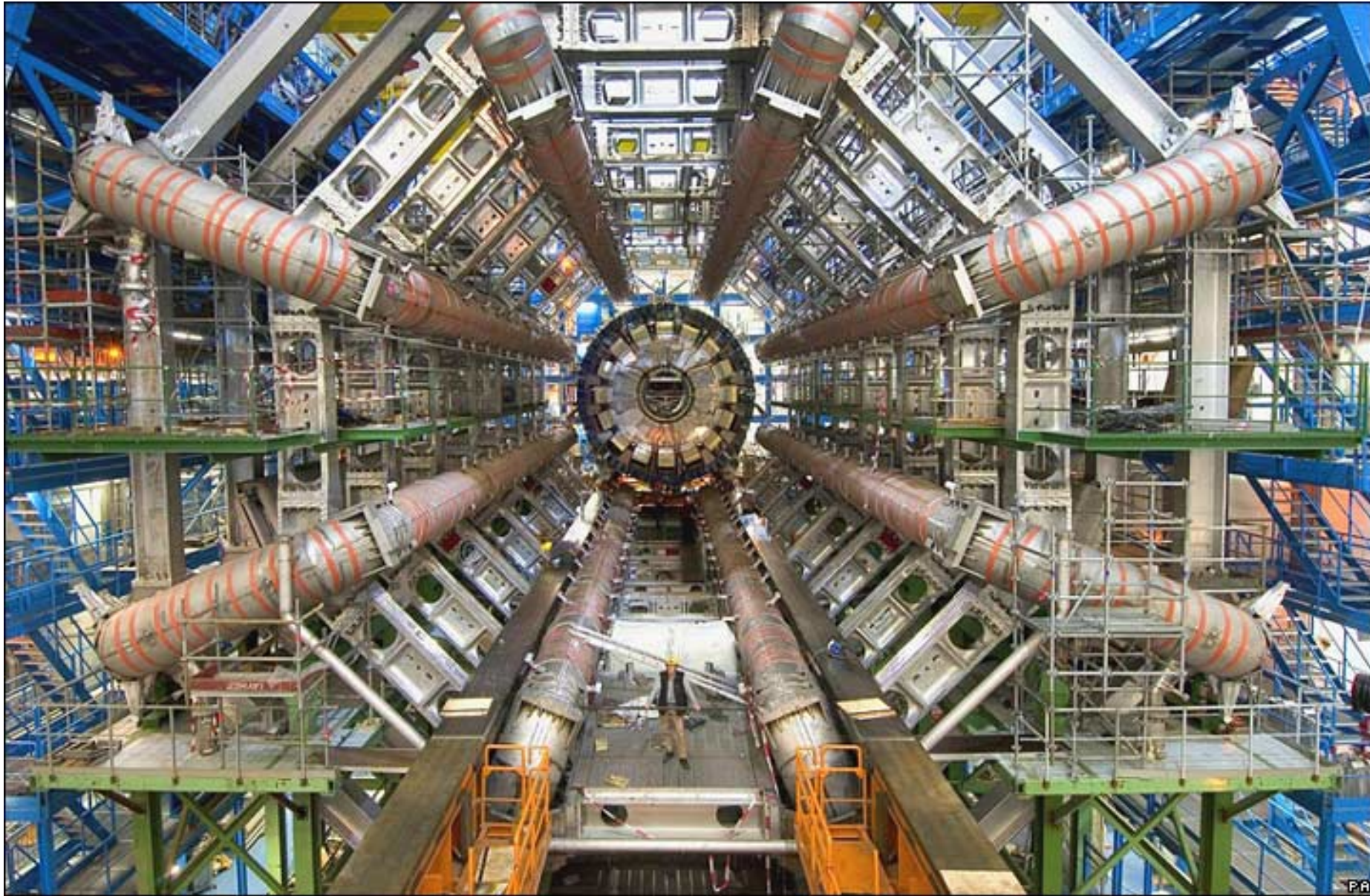


# Quiz: Where's This?



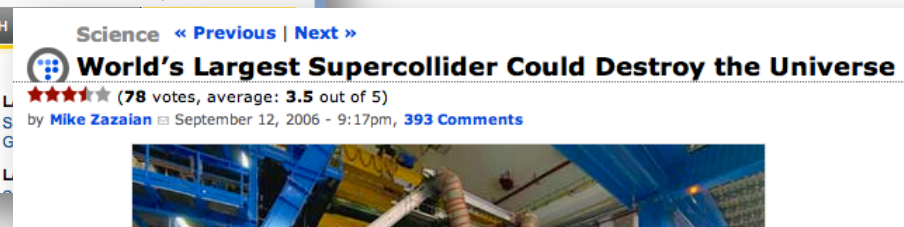


# Quiz: What's This?





# Remember These 2006 Headline?



# Birth of the Web

- From an underground nuclear bunker on the Swiss border, something did escape
- In 1989 the Web took over the academia, industry and the rest of the world





# Less successful Webs from history

Sponsor	System	Scope	Real	Date	Important Properties
Finance / Press	<b>Reuters</b>	Professional, centralised	✓	1850	News & stock information (originally carrier pigeon and subsequently telegraph)
Private Institution	<b>Mundaneum</b>	Public, centralised	✓	1920	Based on indexing technology (the library card)
Military	<b>Memex</b>	Scholarly, individual, centralised	✗	1945	Aimed at Scientists and Technologists in WWII
Media	<b>Xanadu</b>	Public, decentralised	✗	1960	Focused on DRM, reuse and writing for “creatives”
Media	<b>CEEFAQ</b>	Public, national, centralised	✓	1970	Broadcast, linked, not participatory
Government	<b>Minitel</b>	Public, national, centralised	✓	1980	Commercial services and information
Academy (CS & HEP)	<b>FTP / Archie / Anarchie</b>	Public, decentralised	✓	1985	Downloaded resources (papers, reports) to hard drives and printed them on LaserWriters.
Commerce	<b>Hypercard, HyperTIES</b>	Private, centralised	✓	1988	Personal applications, sometimes tied to multimedia resources on CDROMs / video disks
Academy (HEP)	<b>WWW</b>	Public, global, decentralised	✓	1990	Universal naming, linking, interoperability, participative. However no writing, no indexing.
Academy (CS)	<b>Microcosm</b>	Private, centralised	✓	1990	Sophisticated linking and openness for personal information stores
Academy (CS)	<b>HyperG</b>	Public, centralised	✓	1990	Extension of Web for with support for writing, indexing and consistency management.
Commerce	<b>AOL, CompuServ</b>	Public, centralised	✓	1990	Dialup access to email, forums, chat rooms and information resources

# Society is Diverse. One Web Fits All?



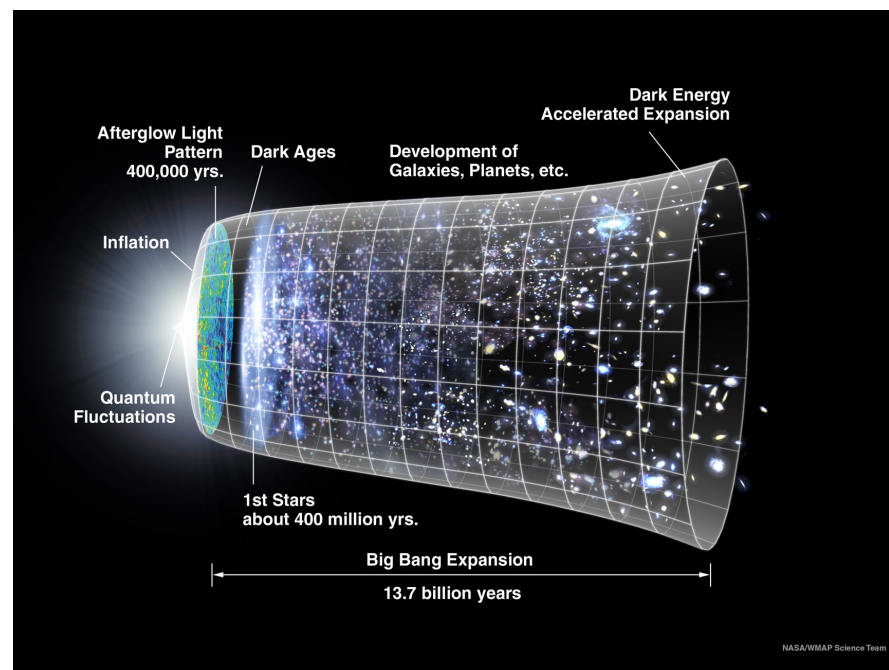
Institution	Objective
Academy	Create and transmit knowledge
Commerce	Make and trade goods
Press	Investigate and report news
Media	Create and broadcast content
Police	Maintain order and public surveillance
Judiciary	Apply law and resolve disputes
Government	Control society and share resources

The development of society as a whole (nuanced and structured and refined) is inextricably related to the technology of information provision, consumption and dissemination (e.g. writing, reading, printing, education). *Different parts of society have different objectives and hence incompatible Web requirements, e.g. openness, security, transparency, privacy.*



# Expansion of the Web

- The Web spread the conditions of its initial creation throughout the whole of society as it underwent an initial inflationary phase.
- The academy
  - government patronage
  - large-scale co-operation
  - sharing of intellectual property

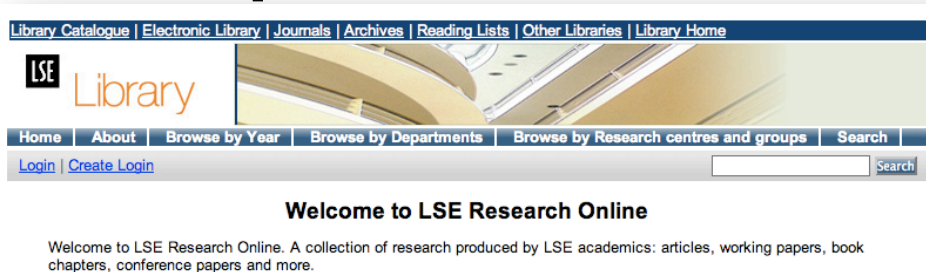


# Openness Agendas



- Open Access to Research Outputs
  - Supported by all UK Research Councils
  - Heavily promoted by JISC
- Open Research Data
  - Demanded by government, private funders & UK Research Councils
  - Move from closed VRE / EScience environment
- Open Educational Resources
  - Move from closed VLEs to sharing resources

# Open Research Publications



Institutional repository for  
the London School of  
Economics  
<http://eprints.lse.ac.uk/>

[About](#)

To deposit your research in LSE Research Online, you can email it to [lsere@lse.ac.uk](mailto:lsere@lse.ac.uk) or you can deposit items directly via the repository.

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LSE Research Online supports Open Access publishing.

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Home | About | Browse by Year | Browse by Departments | Browse by Research centres and groups | Search

Login | Create Login

Atom RSS 1.0 RSS 2.0

## Supporting people with AIDS and their carers in rural South Africa: Possibilities and challenges

Campbell, Catherine and Nair, Yugi and Maimane, Spongile and Sibiya, Zweni  
carers in rural South Africa: Possibilities and challenges. *Health & place* 2008, 14(2), 145-154. doi:10.1016/j.healthplace.2007.10.002

PDF - Requires a PDF viewer such as [GSview](#), [Xpdf](#) or [Adobe Acrobat](#).  
215Kb

Official URL: <http://www.sciencedirect.com/science/article/pii/S1353181307000022>

### Abstract

Under-served rural areas—home to over half of people in sub-Saharan Africa—are a case study of the existence and quality of support networks available to people in African rural area. Drawing on 45 interviews and 13 focus groups, we identify key agencies in civil society, the public and the private sectors. The most effective agencies are faith-based organisations, traditional healers and local leaders, and private sector agencies. We discuss ways in which existing and latent networks can be strengthened to support people with AIDS and their carers.

Item Type: Article

Additional Information: © 2008 Elsevier Ltd

Rights: <http://www.lse.ac.uk/library/rights/LSERO.htm>

Uncontrolled Keywords: HIV/AIDS; Rural areas; Carers; Home-based care; Primary care; Support networks; Facilitation

Library of Congress subject classification: R Medicine > RA Public aspects of medicine > RA0421 Public health. Hygiene. Preventive Medicine  
H Social Sciences > HV Social pathology. Social and public welfare

LSE Research Online

Cathy Campbell, Yugi Nair, Spongile Maimane and Zweni Sibiya  
Supporting people with AIDS and their carers in rural South Africa: Possibilities and challenges.

Article (Accepted version) (Refereed)

Original version  
Campbell, Catherine and Nair, Yugi and Maimane, Spongile and Sibiya, Zweni (2008) Supporting people with AIDS and their carers in rural South Africa: Possibilities and challenges. *Health & place* 14(2), 145-154. doi:10.1016/j.healthplace.2007.10.002

# PDF (Accepted version)  
This document is the accepted version of the journal article. It is not the final version of the article. The final version of the article is available at <http://eprints.lse.ac.uk>

Preview

One of 145 UK  
Institutional Research  
repositories

- Norway 47
- Sweden 58
- Denmark 9
- Finland 9



# Open Scientific Data

A repository of chemical  
data JISC EBank project  
(2003)

Scientific, not bibliographic,  
metadata.

Run by the UK  
Crystallographic Service  
and latterly an international  
consortium.

The screenshot displays the eCrystals web interface. At the top, navigation links include Home, About, Browse by Year, Browse by People, Login, and Create Account. The University of Southampton logo is visible in the upper right corner.

**(6-Thien-2-ylpyrid-3-yl)methanol**

**Sample Originator:** Donated Sample<sup>a</sup>.

**Data Collection:** Susanne L. Huth<sup>b</sup> and Michael B. Hursthouse<sup>b</sup>

**Structure Determination:** Susanne L. Huth<sup>b</sup>.

Sample kindly provided by Maybridge<sup>a</sup>  
University of Southampton<sup>b</sup>

**C<sub>10</sub>H<sub>9</sub>NOS**

InChI=1/C10H9NOS/c12-7-8-3-4-9(11-6-8)10-2-1-5-13-10/h1-6,12H,7H2

**Identification Number:** 10.3737/ecrystals.chem.soton.ac.uk/373

**Date Created:** 09 July 2007

**Deposited On:** 31 Jan 2008 13:08

**Deposited By:** Ms L.S. Huth

**Available Files**

File Name	Size
<a href="#">2007may0014.cif</a>	11k
<a href="#">2007may0014.cml</a>	3k
<a href="#">2007may0014.fcf</a>	99k

**Final Result**

**Validation**

<a href="#">2007may0014_checkcif.htm</a>	8k
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**Refinement**

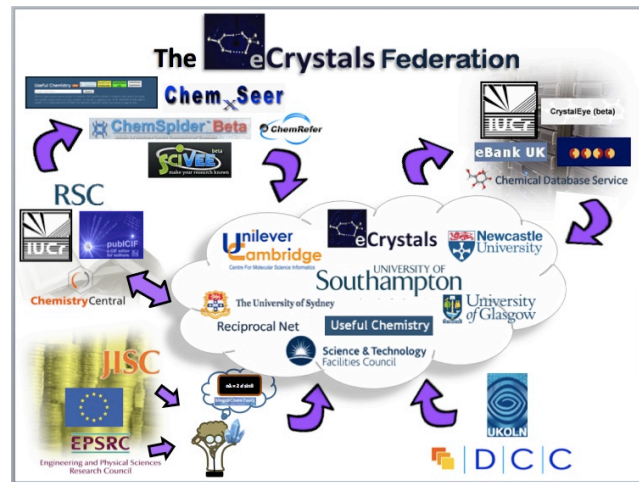
<a href="#">2007may0014.res</a>	4k
<a href="#">2007may0014_xl.lst</a>	30k

**Chemical Data Table:**

Parameter	Value
Chemical formula	C10 H9 N O S
Crystallisation Solvent	
Crystal morphology	Needle
Crystal system	Orthorhombic

**Depositor Comments**

More information about this compound can be found at:  
<http://www.maybridge.com/>



# Open Educational Resources

- JISC EdSpace Project
- IEEE LOM metadata
- Web 2, informally tagged
- Sufficient for discoverability and usefulness

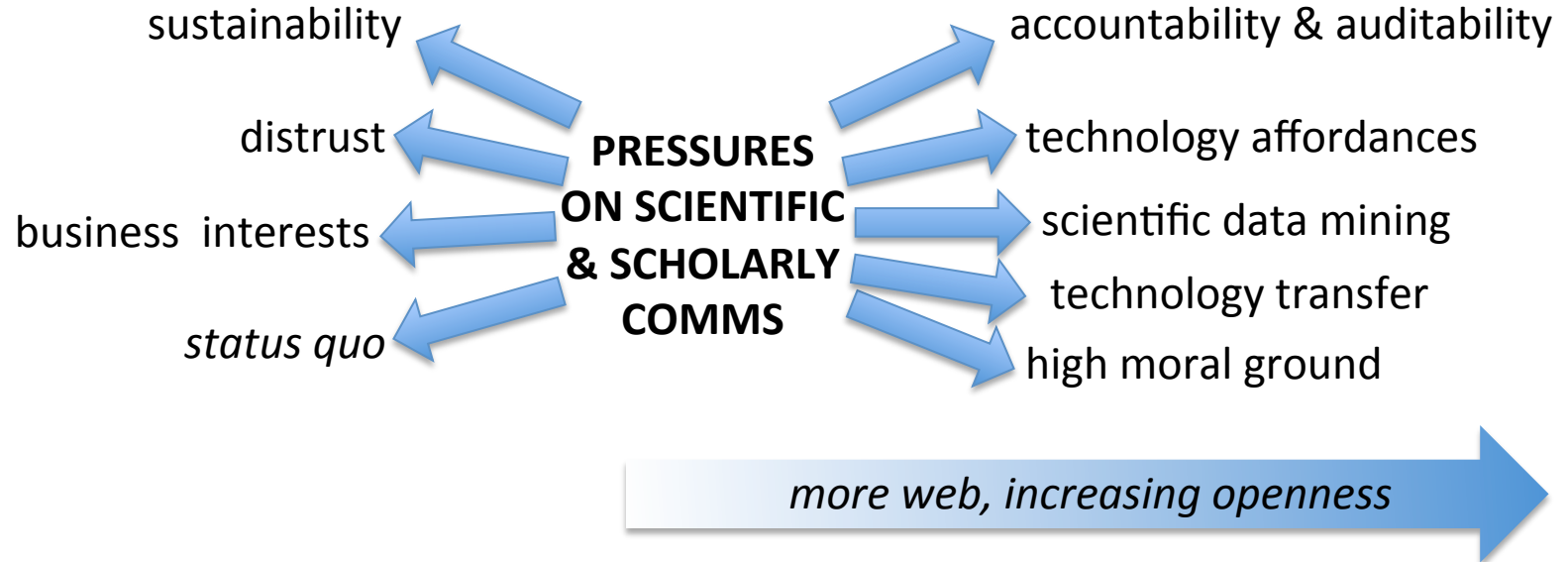
The screenshot displays the EdShare website, which is part of the University of Southampton. The header includes the EdShare logo and the University of Southampton name. Navigation links for Home, Browse, About, and Help are present, along with a search bar and an advanced search option. Below the navigation bar, there are links for Profile, Share manager, Bookmarks, Saved searches, and Logout. The main content area features a poster titled "What are the actual effects of Enterprise 2.0?" by Mark Schueller. The poster includes sections on the origins of social software, Enterprise 2.0 Typology, Research methods, The hype and the question, and Theoretic framework. Below the poster, there are links to download the poster in various formats: Microsoft PowerPoint, PDF, and Microsoft PowerPoint. To the right of the poster, there is a "Description" section, an "Advice for reuse" section, and a "Share details" section. The "Share details" section includes information about the added by (Dr Leslie Carr), added on (16 Feb 2010 13:37), creators (Leslie Carr, Catherine Pope), tags (Web science), viewing permissions (World), link (http://www.edshare.soton.ac.uk/4790/), and downloads. At the bottom right, there is a "Toolbox" section with options to edit item, bookmark this item, download as zip, and use as template.



Jorum

JISC Jorum (full LOM) &  
JorumOpen (lightweight OA approach, DSpace)

# Directions for Researchers



- Open Access, Open Data, Open Educational Resources
  - Web Technology joins the High Moral Ground
- *vs* the established economic model for ensuring continuity of information production
  - trading of privately held information through subscription products such as journals or magazines

Comment & Analysis

**UEA appeared to support a culture of "resisting disclosure of information to climate change sceptics".**

The committee chairman, Phil Willis, described this as "reprehensible".

Climate science must be transparent and irreproachable, the committee said.

# Climategate

- Climate Research Unit at UEA refused to provide research data upon which its publications had been based

**"When the prices to pay are so large, the knowledge on which these kinds of decisions are taken had better be right," the report stated.**

## Climate science must be more open, say MPs

By Roger Harrabin  
Environment analyst, BBC News

**MPs investigating the climate change row at the UK's University of East Anglia (UEA) have demanded greater transparency from climate scientists.**

The Commons Science and Technology Committee criticised UEA authorities for failing to respond to requests for data from climate change sceptics.



31 March 2010

Roger Harrabin  
Environment analyst,  
BBC News

**"It is not standard practice in climate science to publish the raw data and the computer code in academic papers," its report said.**

**"We consider that climate scientists should take steps to make available all the data that support their work, including raw data... and full methodological workings, including the computer codes."**



UK intelligence had used the al-Muhajiroun group to recruit militants for the war in Kosovo

### Newspapers Exits and entrants

The Guardian has appointed its second deputy editor and also over the past few years, the news from the British press has been dominated by the Guardian's efforts to attract more readers and to make the paper more relevant to its audience.

Say aloha to Jane Austin  
Ken's source

Ken's source

Ken's source

Ken's source

Ken's source

Ken's source



# Open Government Data

- Same principles work on the government
  - Transparency
  - Openness
  - Innovation
  - Enabling new value & new businesses

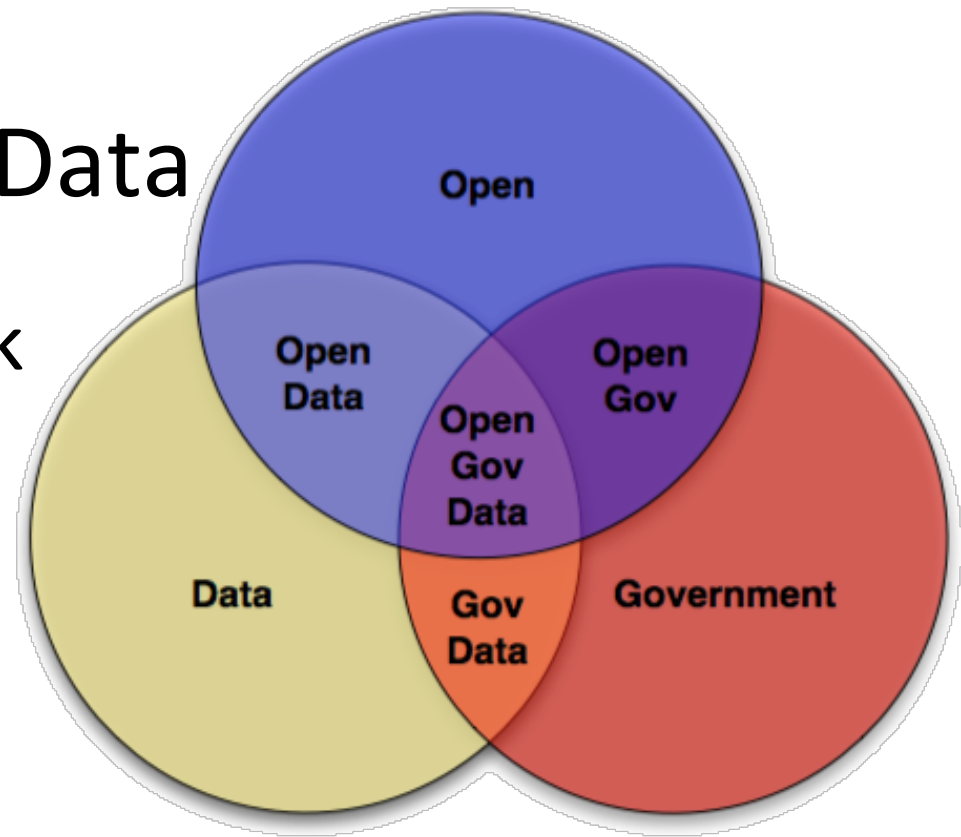
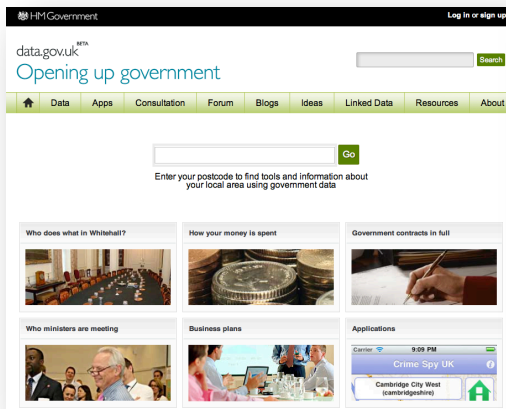


Diagram by Flickr user 'justgrimes' <http://www.flickr.com/photos/notrucelce/5241176871/>



# data.gov.uk (8,300 data sets)



data.gov.uk<sup>BETA</sup>  
Opening up government

**Data** Apps Consultation Forum Blogs Ideas Linked Data Resources About

## FCO Travel Advice

Posted by Foreign and Commonwealth Office on 17/02/2011 | 2 comments | ★★★★★

Foreign & Commonwealth Office (FCO) travel advice for you to re-use in your own applications, widgets and content. Designed by Directgov Innovate for developers or content aggregators to build feeds of travel advice, get embassy contact information and FCO travel news through a RESTful, content-negotiated interface. Any development platform with an HTTP stack or any widget generator that takes an ATOM feed will be able to use the content.

► Overview

▼ Resources (download)

Download  FCO Travel Advice

► Details

► Contact information

Comments (2) [Add new comment.](#)

 **How ?**  
Tue, 08/03/2011 - 12:24 — Anonymous  
How would I integrate this into my travel insurance site ?  
Thanks in advance  
[reply](#)

 **Take a look at what how I**  
Tue, 15/03/2011 - 20:47 — michaelg  
Take a look at what how I have used the data here  
<http://www.ebusinessconsultant.co.uk/foreign-travel-advice/>

Share this 

**Related apps**

**Travel Tools Dashboa...**  
by Andy Wrigley | ★★★★★  
A Travel Dashboard providing a huge range of tools for independent and business...

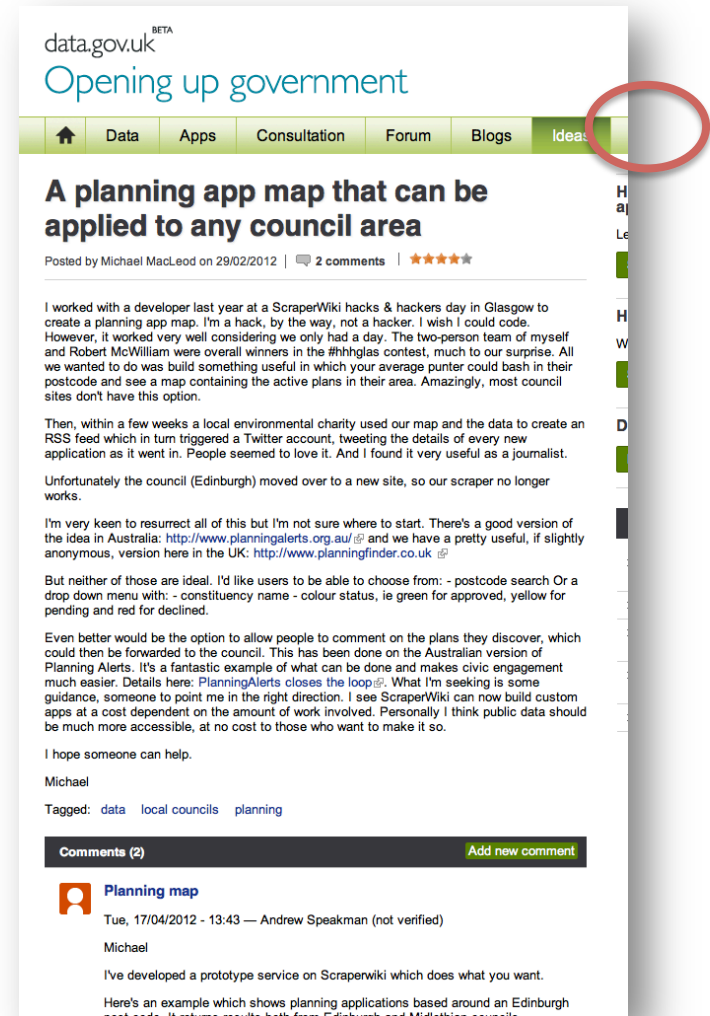
**Travel Information b...**  
by Andrew Wrigley | ★★★★★  
A widget for travel websites, providing the latest Travel Advice by Country from down...

Travel Advice for:  
Afghanistan

**Have you used our data to create an application?**  
Let us know...  
[Share your app](#)

**Have you got a good idea for the data?**  
We can help you find a developer....

Bespoke apps produced by independent developers for government data



data.gov.uk<sup>BETA</sup>  
Opening up government

Home Data Apps Consultation Forum Blogs **Ideas**

## A planning app map that can be applied to any council area

Posted by Michael MacLeod on 29/02/2012 | 2 comments | ★★★★★

I worked with a developer last year at a ScraperWiki hacks & hackers day in Glasgow to create a planning app map. I'm a hack, by the way, not a hacker. I wish I could code. However, it worked very well considering we only had a day. The two-person team of myself and Robert McWilliam were overall winners in the #hhghlas contest, much to our surprise. All we wanted to do was build something useful in which your average punter could bash in their postcode and see a map containing the active plans in their area. Amazingly, most council sites don't have this option.

Then, within a few weeks a local environmental charity used our map and the data to create an RSS feed which in turn triggered a Twitter account, tweeting the details of every new application as it went in. People seemed to love it. And I found it very useful as a journalist.

Unfortunately the council (Edinburgh) moved over to a new site, so our scraper no longer works.

I'm very keen to resurrect all of this but I'm not sure where to start. There's a good version of the idea in Australia: <http://www.planningalerts.org.au/> and we have a pretty useful, if slightly anonymous, version here in the UK: <http://www.planningfinder.co.uk/>

But neither of those are ideal. I'd like users to be able to choose from: - postcode search Or a drop down menu with: - constituency name - colour status, ie green for approved, yellow for pending and red for declined.


Even better would be the option to allow people to comment on the plans they discover, which could then be forwarded to the council. This has been done on the Australian version of Planning Alerts. It's a fantastic example of what can be done and makes civic engagement much easier. Details here: [PlanningAlerts closes the loop](#). What I'm seeking is some guidance, someone to point me in the right direction. I see ScraperWiki can now build custom apps at a cost dependent on the amount of work involved. Personally I think public data should be much more accessible, at no cost to those who want to make it so.

I hope someone can help.

Michael

Tagged: [data](#) [local councils](#) [planning](#)

Comments (2) [Add new comment.](#)

 **Planning map**  
Tue, 17/04/2012 - 13:43 — Andrew Speakman (not verified)  
Michael  
I've developed a prototype service on Scraperwiki which does what you want.  
Here's an example which shows planning applications based around an Edinburgh post code. It returns results both from Edinburgh and Midlothian councils.

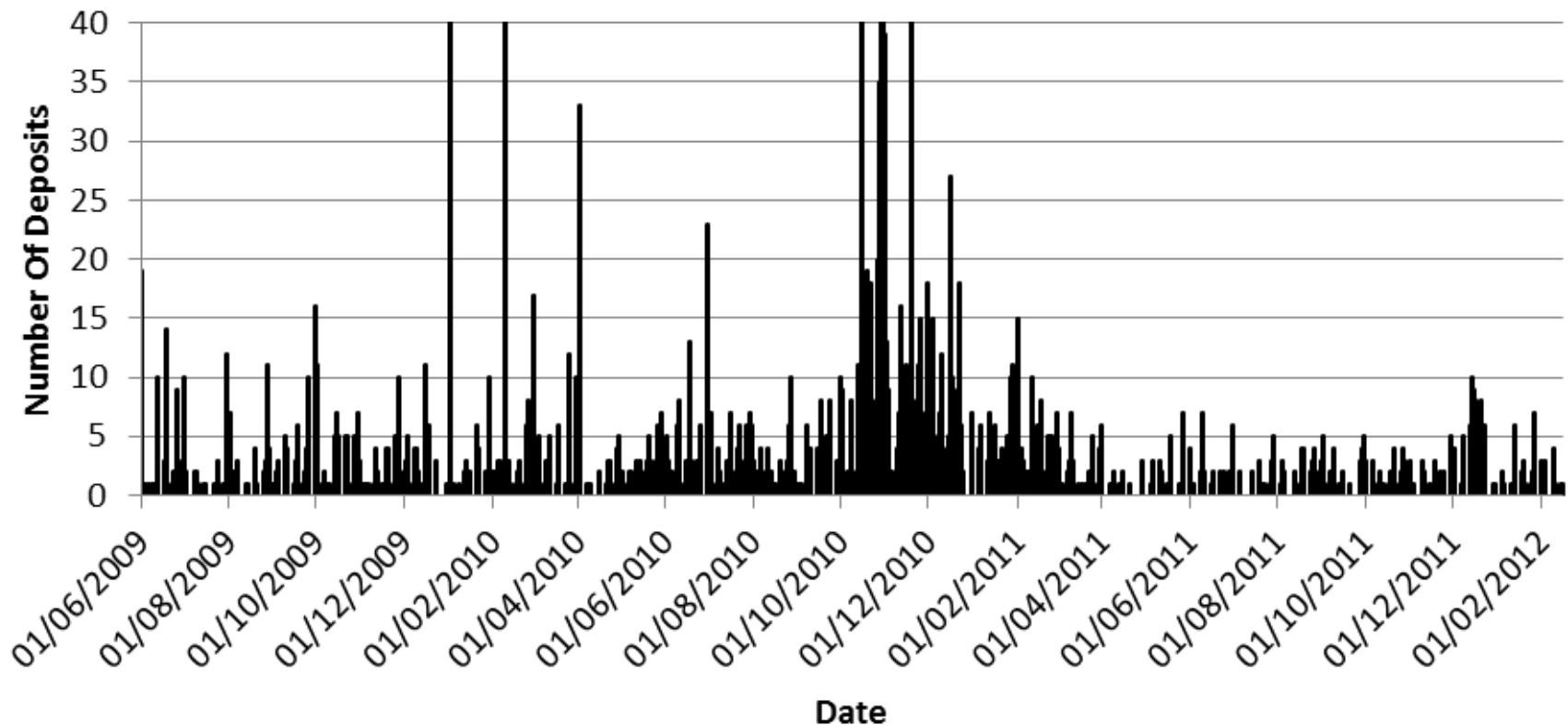
Shared ideas: Michael built a 'planning proposals' web app. Some turned it into an RSS feed. Someone else turned that into a Twitter feed. Someone else used scraperwiki...



# Data.gov.uk - What's Available

- Over 8,300 datasets now
- Frequent deposit activity of medium sized dataset deposits
- Signs of a healthy data catalogue

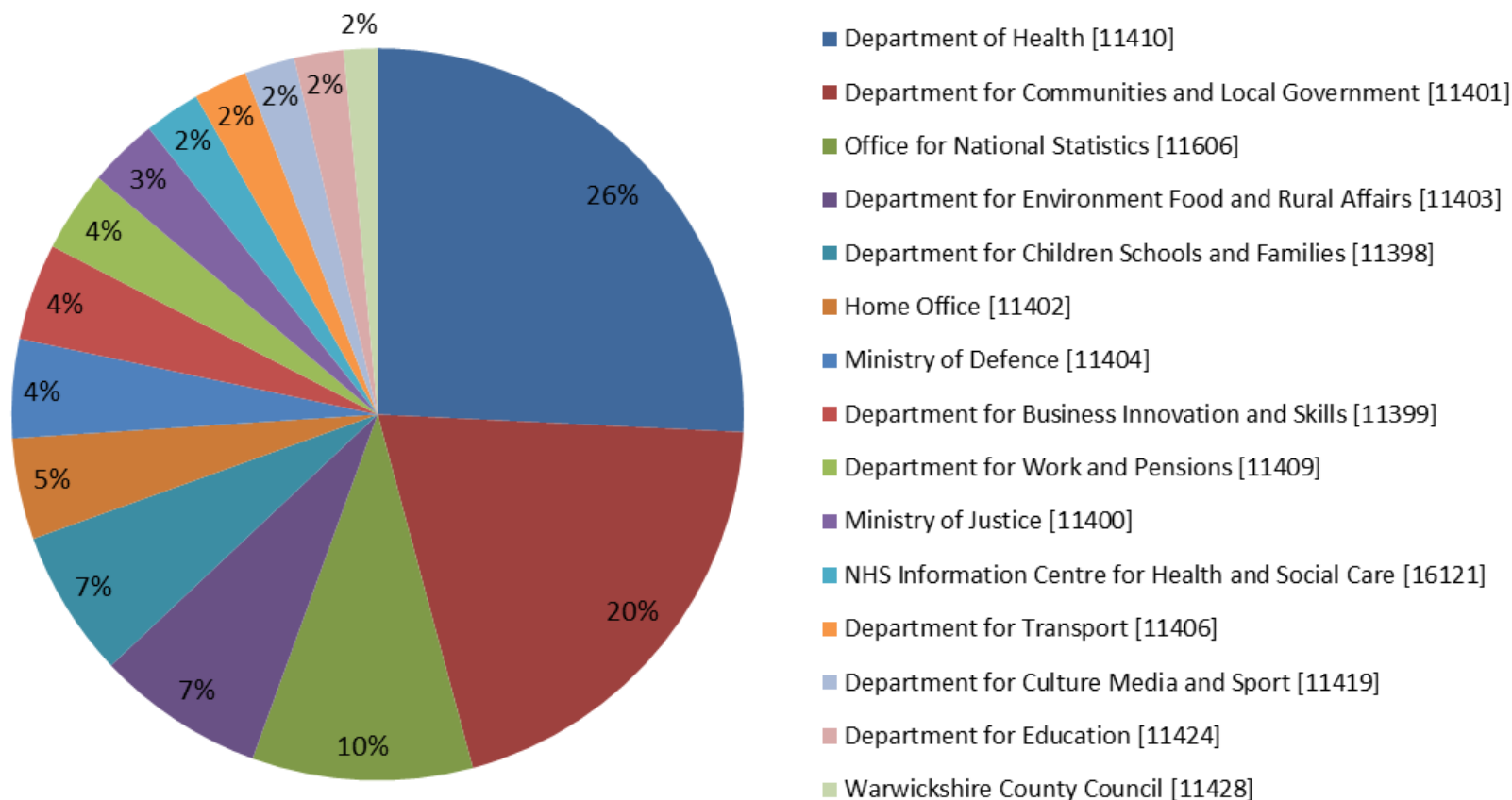
## Dataset Deposits made in Data.gov.uk



# Data.gov.uk - Who's Publishing It

- 406 departments supplying data
- These include national Government departments, local government, and local council

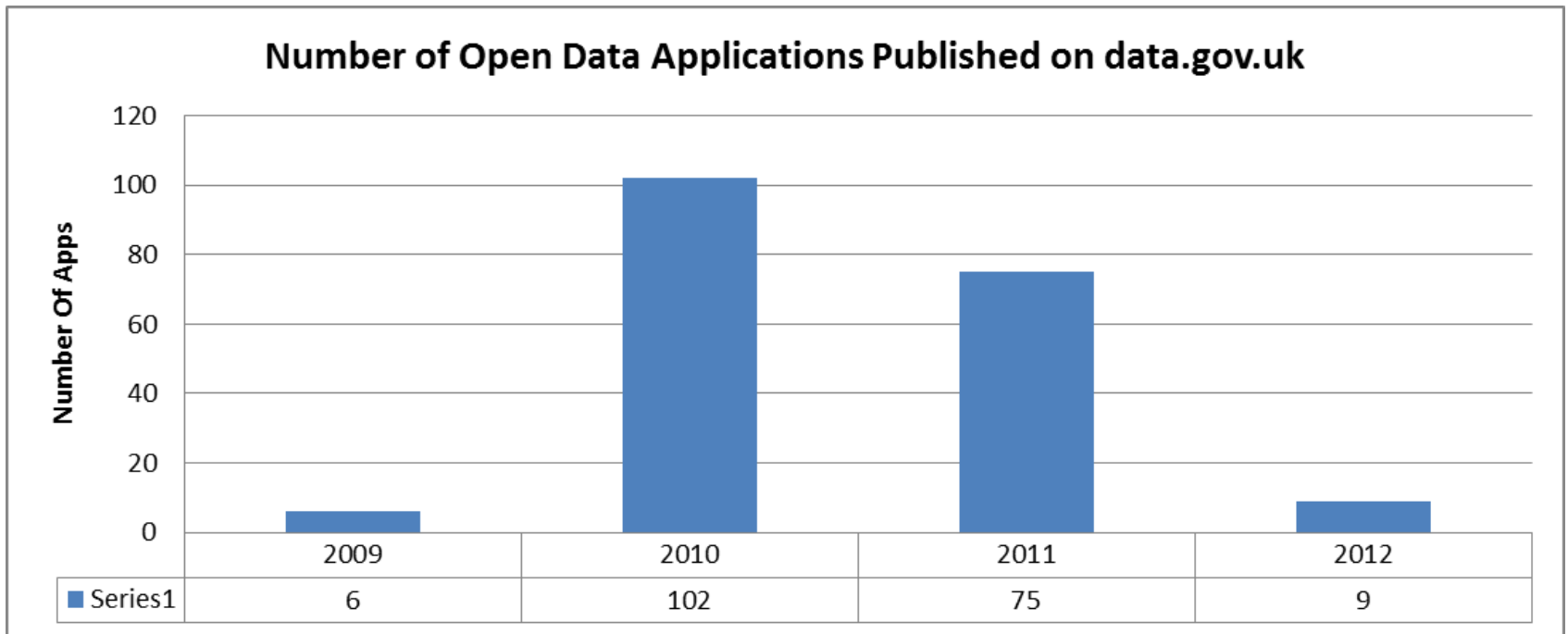
## Departments Depositing >1% of Total Datasets in data.gov.uk





# Data.gov.uk - Who's Using It

- 197 Applications available on Data.gov.uk
- Ranging over multiple topics of interest
  - Transparency Apps
  - Transport Apps
  - Public Health Apps



# Institutional Open Data

## Open Data Service

Open Data Homepage

5★ Data

Frequently Asked Questions

Apps

Data Catalogue

Places

Phonebook

Academic Programmes

Organisation

Jargon

Points of Service

Products & Services

Bus Routes

SPARQL Endpoint


Feedback

Suggestions

Report a Problem

Register an App

University of Southampton > Open Data > Datasets

 Share

### Datasets

Here is a list of datasets we currently have available. At this subject to alteration because we are learning as we go. If you going to rely on the data, please [let us know](#).

- [Apps using our data](#)
- [Buildings and Places](#)
- [Catering](#)
- [Common Learning Spaces Extra Information](#)
- [EPrints Repository](#)
- [EdShare](#)
- [EdShare Video](#)
- [Electronics and Computer Science EPrints Repository](#)
- [Events Diary](#)
- [International Links](#)
- [International Links DBpedia Data](#)
- [JACS Codes](#)
- [Links to DisabledGo Access Information](#)
- [Local Amenities](#)
- [Open Data Catalog](#)
- [Open Days July 2011](#)
- [Organisation](#)
- [Payments 2010-11 to 2011-01](#)
- [Photographs of University of Southampton Things](#)

```
@base <http://id.southampton.ac.uk> .
@prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#> .

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  a <http://purl.org/void/provenance/ns/ProvenanceEvent> .
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# Institutional Apps



Application created by 4 students using the following datasets:

- Buildings and Places
- Catering
- Local Amenities
- Southampton bus-routes
- Southampton Bus-stops
- Teaching Room Features
- Ordnance Survey Data

# How Does Open Data Work?

- Make catalogue of all the things **you** know
- Give each thing a permanent web name (URL)
  - Publish information about that thing on the Web with an open license
  - ★ Use a machine readable format
  - ★★ Use a standard data format
  - ★★★ Use an open standard data format
  - ★★★★★ Mention other things using their web URLs

# “Open” Platforms



Internet



# “Open” Platforms

Internet

Web

# “Open” Platforms

Internet

Web

Wiki

Facebook

Twitter

YouTube

Google

# “Open” Platforms

Internet

Web

Wiki

Facebook

Twitter

YouTube

Google

Wikipedia

Social Marketing

Media  
Channel

**X**



# Why Closed Knowledge Systems are Bad



## Evaluation

*Did Germany make the right choice in relocating their post-unification capital to Bonn?*

## Synthesis

*Create a set of guidelines for choosing alternative national capitals in a post-climate change Europe.*

## Analysis

*What were the overriding factors in the choice of sites for the European parliament and commission?*

## Application

*Choose the most appropriate capital for the Isle of Wight*

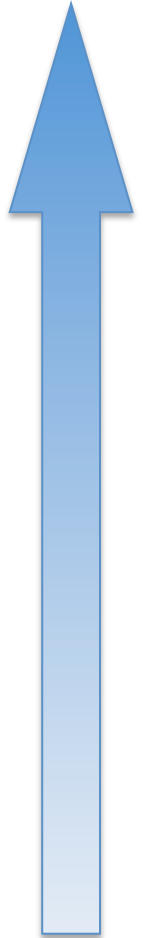
## Comprehension

*Why is Paris the capital of France?*

## Knowledge

*What is the capital of France?*

Increasing educational capabilities



Bloom's Educational Taxonomy demonstrates why closed knowledge systems are bad

# Open Source, Systems, Data + Us = Open Society

- The Web isn't a thing but an activity
  - the creation of a network of information by a network of individuals.
- The Web wasn't invented by Tim Berners-Lee,
  - it is still being invented by all of us as we gradually adapt our tools and change our practices

**The Web is an extraordinary change in the ability of humankind to build value and to be valuable**  
The product of people with open license, open standards, open systems

