

Here Comes Everything: Preparing for the Linked Web of Data

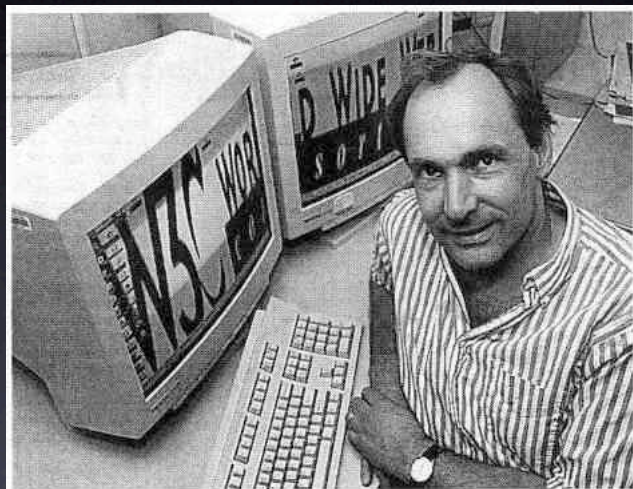
Wendy Hall
Nigel Shadbolt

GSE Annual Conference
25 January 2010
London

Part 1 - Here Comes Everything

Wendy Hall

GSE Annual Conference
25 January 2010
London



Tim Berners-Lee: Erfinderstolz

Foto: AP

CERN DD/OC

Information Management: A Proposal

Tim Berners-Lee, CERN/DD

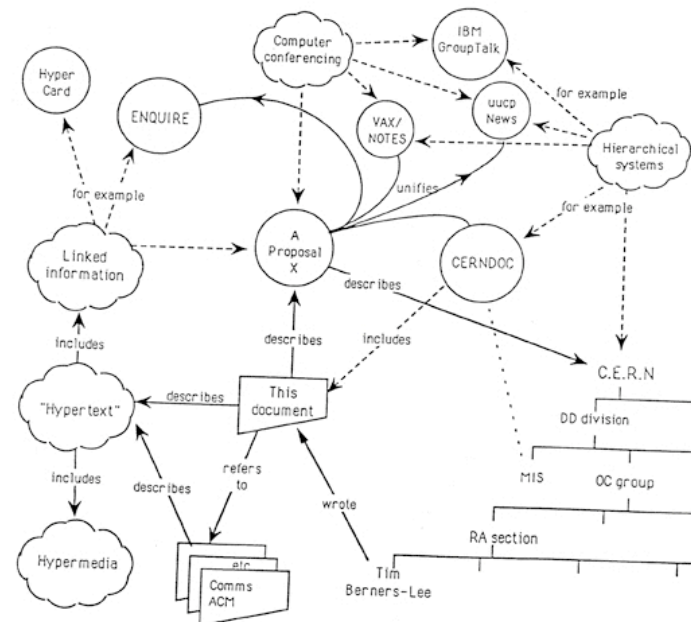
March 1989

Information Management: A Proposal

Abstract

This proposal concerns the management of general information about accelerators and experiments at CERN. It discusses the problems of loss of information about complex evolving systems and derives a solution based on a distributed hypertext system.

Keywords: Hypertext, Computer conferencing, Document retrieval, Information management, Project control



Lessons learnt:

Big is beautiful:
the network is everything (tbl)

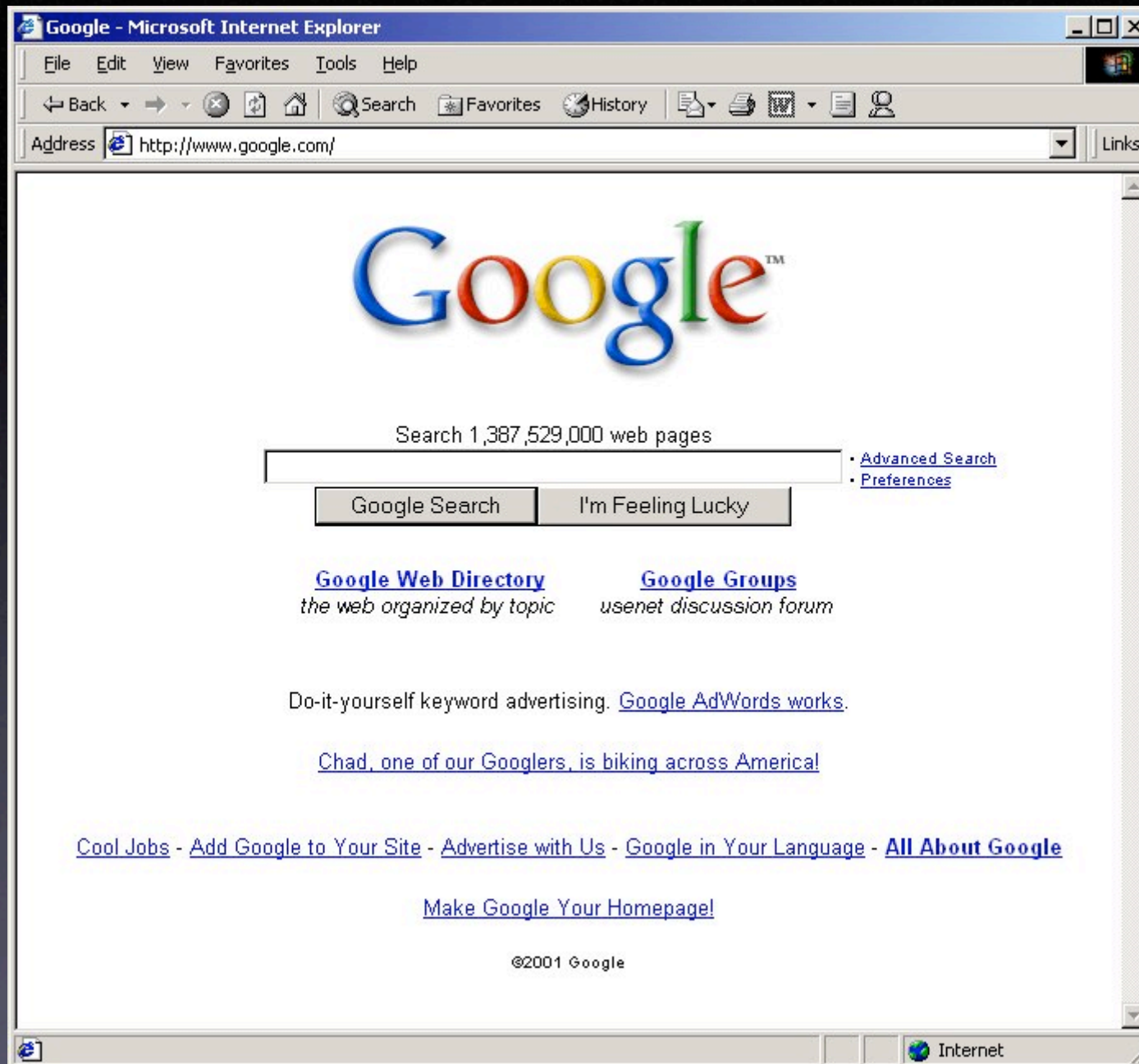
Scruffy works: let the links fail to make it scale (tbl)

Democracy rules: open and free (tbl)

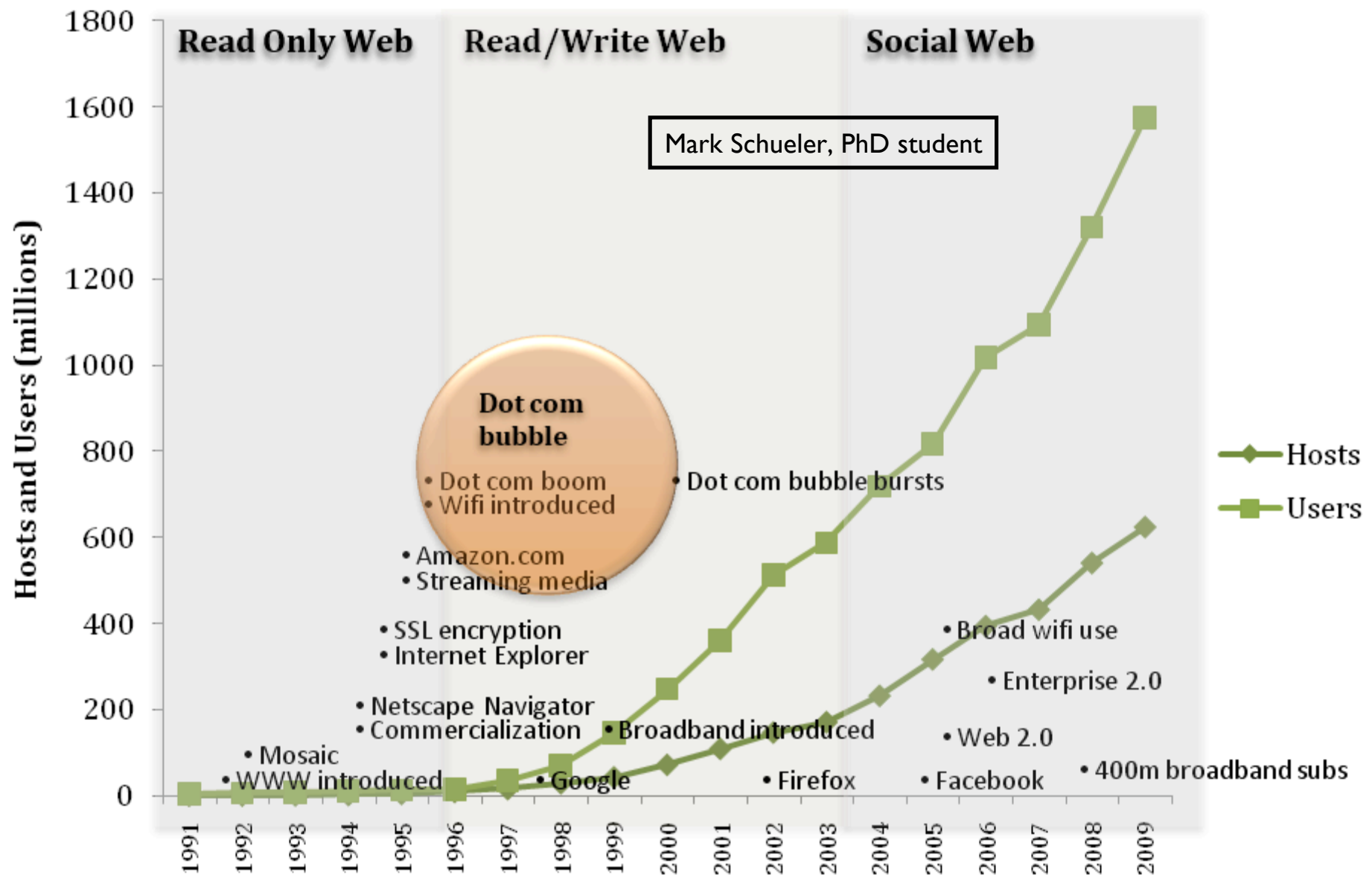
Open, non-proprietary, universal standards

But as the Web got bigger

Couldn't find information easily just by following links

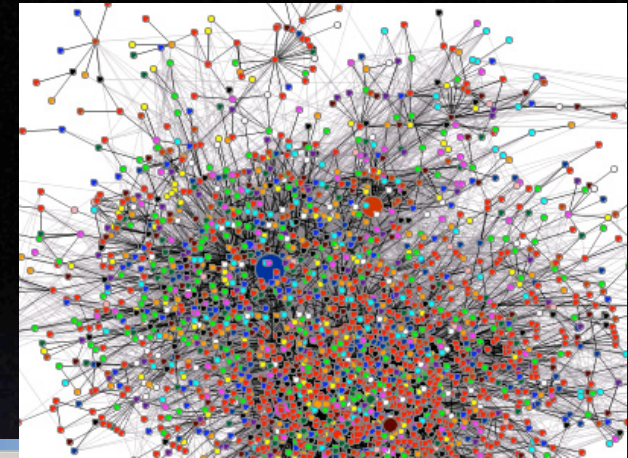


Internet Growth - Usage Phases - Tech Events



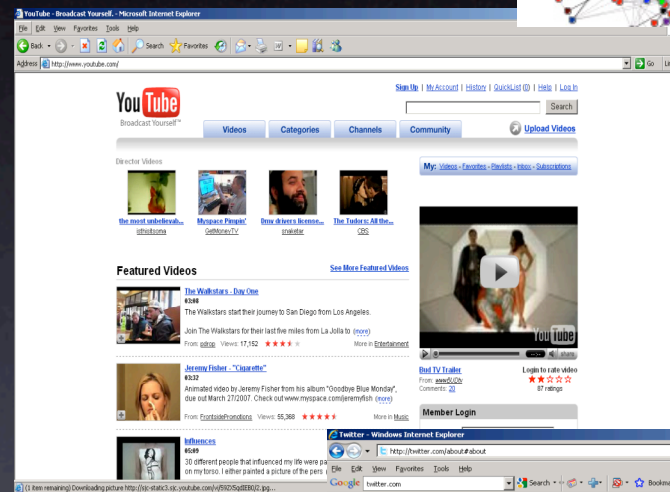
Note - events shown relate to the time axis only.

Web 2.0



- Wiki's
- Blogs
- Folksonomies
- Flickr
- YouTube
- MySpace
- Facebook
- Second Life
- Twitter

Blogosphere



Wikipedia, the free encyclopedia - Windows Internet Explorer

http://en.wikipedia.org/wiki/Main_Page


File Edit View Favorites Tools Help

Google Wikipedia Search + Bookmarks Check Translate AutoFill Wikipedia Sign In

Wikipedia, the free ency... realtimecollisiondetection.ne...

Try Beta Log in / create account

main page discussion view source history

 WIKIPEDIA
The Free Encyclopedia

navigation

- Main page
- Contents
- Featured content
- Current events
- Random article

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Go Search

interaction

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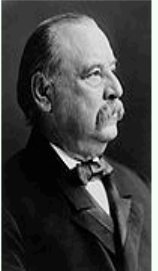
Welcome to Wikipedia,
the free encyclopedia that anyone can edit.
3,102,741 articles in English

Arts Biography Geography History Mathematics Science Society Technology All portals

Overview · Editing · Questions · Help

Contents · Categories · Featured content · A–Z index

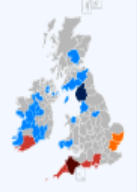
Today's featured article

 **Grover Cleveland** (1837–1908) was both the 22nd and 24th President of the United States. Cleveland is the only President to serve two non-consecutive terms (1885–1889 and 1893–1897) and therefore is the only individual to be counted twice in the numbering of the presidents. He was the winner of the popular vote for President three times—in 1884, 1888, and 1892—and was the only Democrat elected to the Presidency in the era of Republican political domination that lasted from 1860 to 1912. Cleveland's admirers praise him for his honesty, independence, integrity, and commitment to the principles of classical liberalism. As a leader of the Bourbon Democrats, he opposed imperialism, taxes, subsidies and inflationary policies, but as a reformer he also worked against corruption, patronage, and bossism. Critics complained that he had little imagination and seemed overwhelmed by the nation's economic disasters—depressions and strikes—in his second term. Even so, his reputation for honesty and good character survived the troubles of his second term. (more...)

Recently featured: Werner Mölders – Electron – Han Dynasty

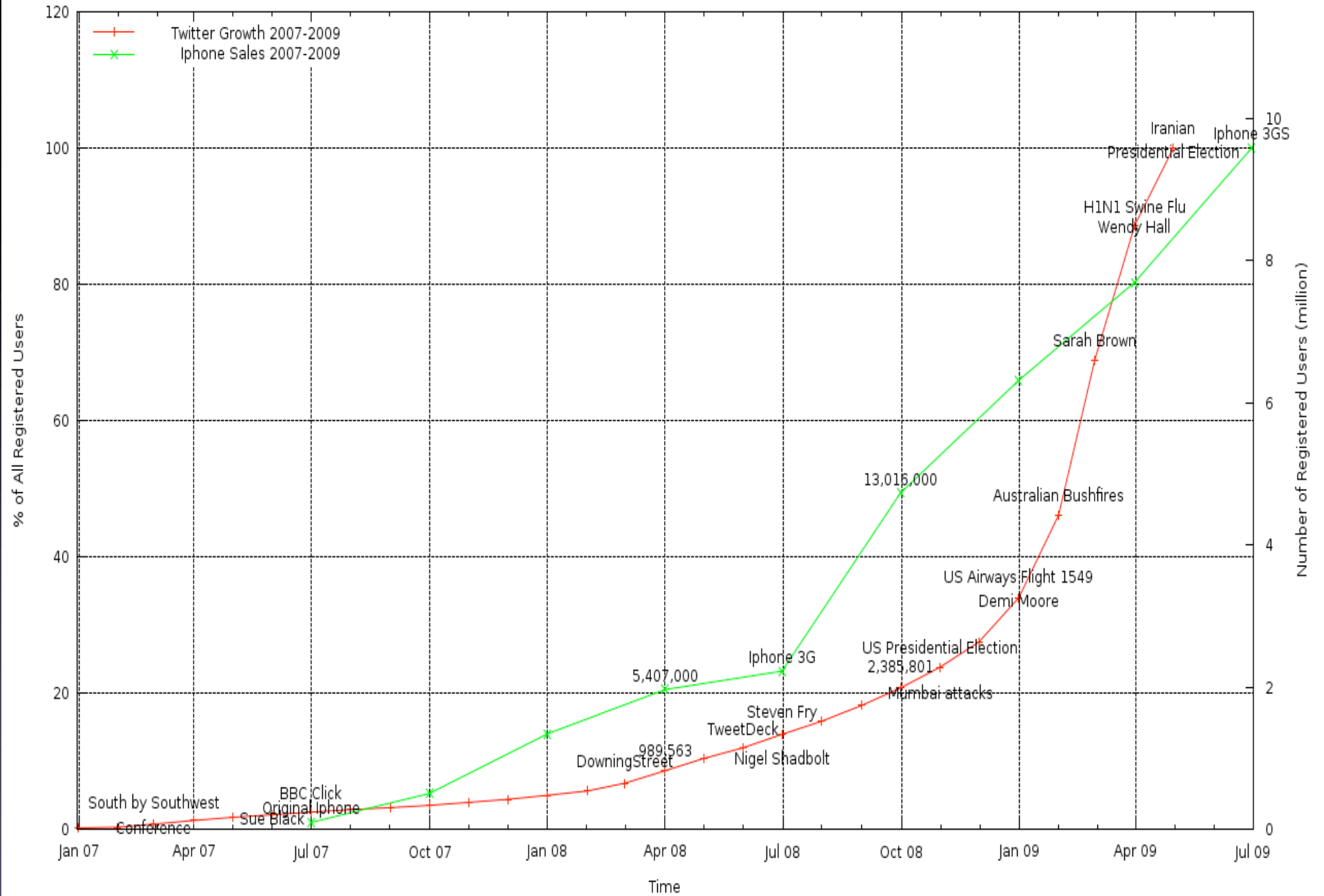
In the news

- At least 104 people are killed in a **mine explosion** in Heilongjiang, People's Republic of China.
- Continued flooding** affecting Great Britain and Ireland (*affected areas pictured*) results in two deaths.
- Egypt **recalls** its ambassador to Algeria in a dispute following a qualifying match between the nations for the 2010 FIFA World Cup.
- Prime Minister of Belgium **Herman Van Rompuy** is chosen as the first permanent President of the European Council.
- British politician **Catherine Ashton** is selected as the first High Representative of the European Union for Foreign Affairs and Security Policy.
- A United States district court **finds** the Army Corps of Engineers was negligent in maintaining New Orleans levees that contributed to flooding during Hurricane Katrina.



Internet 100%

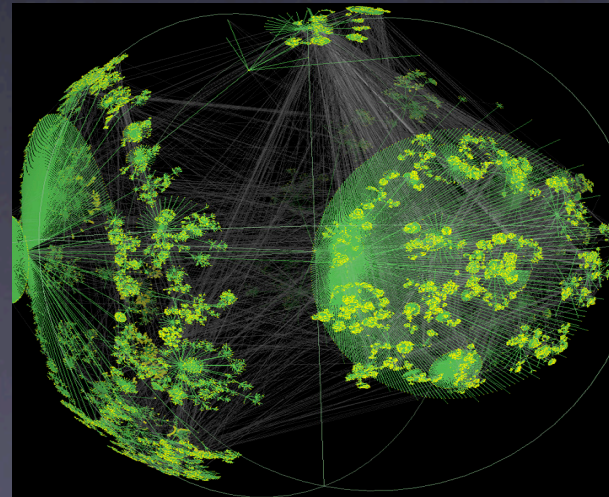
Timeline of Twitter Growth



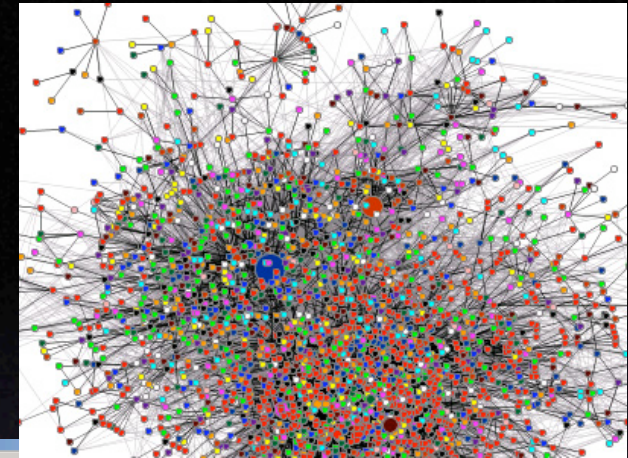


Web 1.0

A Web of Documents

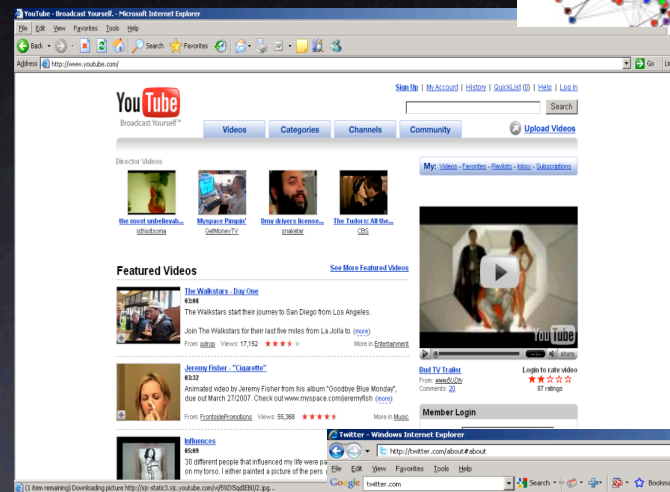


Web 2.0



- Wiki's
- Blogs
- Folksonomies
- Flickr
- YouTube
- MySpace
- Facebook
- Second Life
- Twitter

Blogosphere



Tomorrow the Web of Linked Data

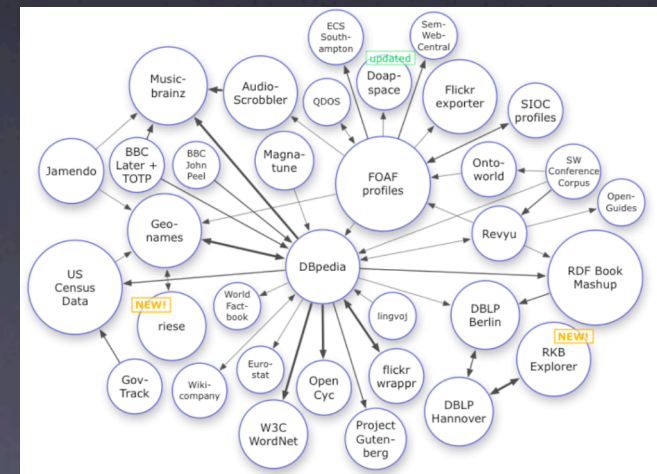
We're eager to share data for all sorts of reasons

What are the implications for business?

What are social and policy implications?

What will we do with it?

Web 3.0?



Linking Data

[http://
www2002.org](http://www2002.org)

WWW 2002



**THE ELEVENTH INTERNATIONAL
WORLD WIDE WEB CONFERENCE**

Sheraton Waikiki Hotel
Honolulu, Hawaii, USA
7-11 May 2002

CONFERENCE ORGANIZERS

International World Wide
Web Conference Committee

HAWAII

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On 7-11 May 2002, Honolulu, Hawaii will provide the backdrop for The Eleventh International World Wide Web Conference. This prestigious series of the International World Wide Web Conference Committee (IW³C²) attracts participants from around the world, and it provides a public forum for the World Wide Web Consortium (W3C) through the annual W3C track.

The conference is being organized by the [International World Wide Web Conference Committee \(IW³C²\)](#), the [University of Hawaii](#) and the [Pacific Telecommunications Council \(PTC\)](#).

FEATURED SPEAKERS (CONFIRMED)



Tim Berners-Lee, inventor of the World Wide Web and Director of the W3C who now holds the 3Com Founders chair at the Laboratory for Computer Science (LCS) at the Massachusetts Institute of Technology (MIT).



Richard A. DeMillo, vice president and chief technology officer for Hewlett-Packard Company.



Ian Foster, guru of "Grid Computing", associate



McArthur Prize Winner,

In a way that machines can “understand”....

<http://www2002.org>

WWW 2002

**THE ELEVENTH INTERNATIONAL
WORLD WIDE WEB CONFERENCE**

This is a type of object event and this is its title

This is the URL of the web page for the event

This is a type of object photograph and the photograph is of Tim Berners-Lee

Tim Berners-Lee is an invited speaker at the event

```
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</owl:Restriction>
```

1 LOCATION. 5 DAYS.

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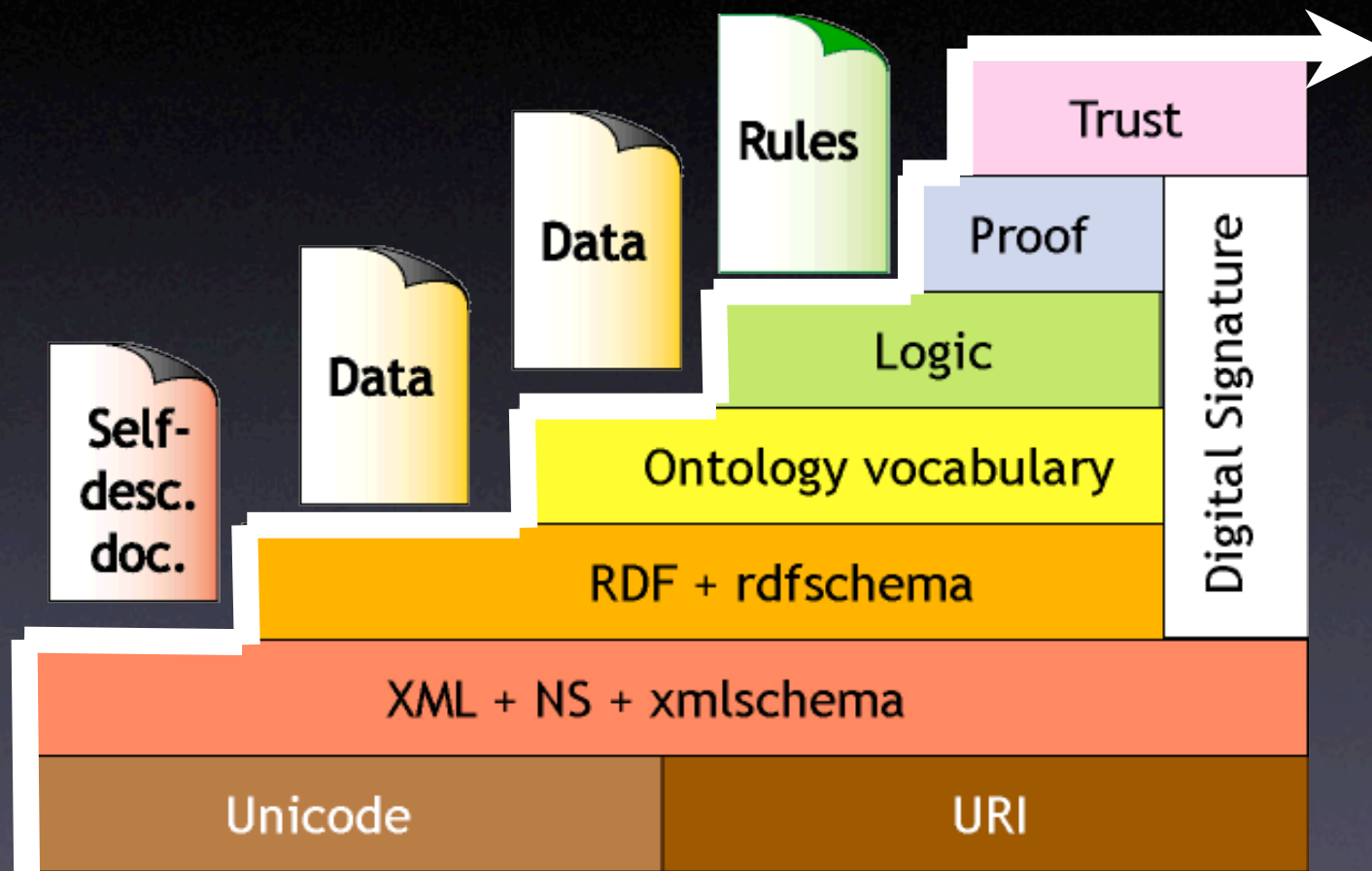
James S. Galletta

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McArthur Prize Winner, ...

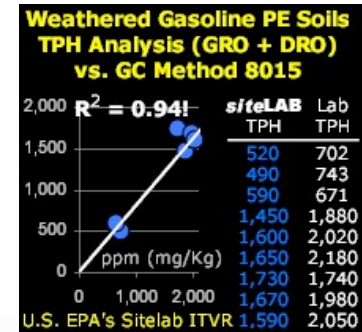
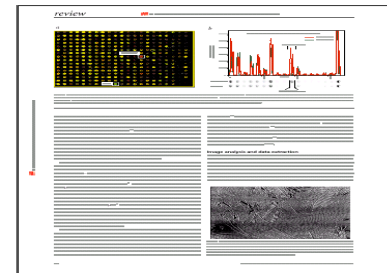
The Semantic Web



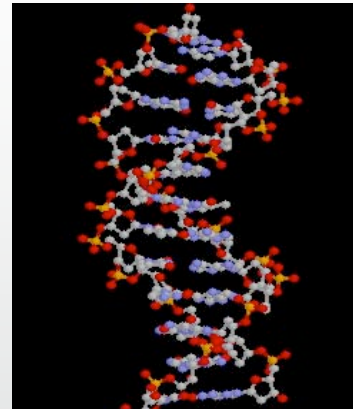
Semantic Web LayerCake (Berners-Lee, 99; Swartz-Hendler, 2001)

Can mark up and link any resource...

- Publications...
- Multimedia...
- Databases...
- Scientific structures...
- Workflow...
- People...



Web data set (XHTML)

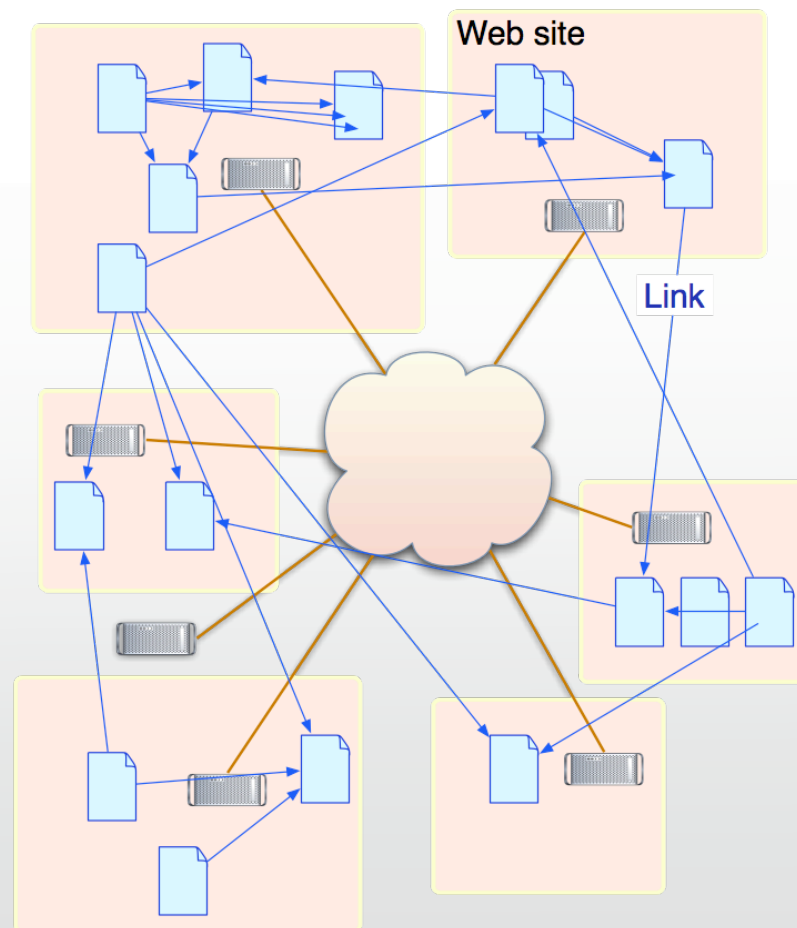


Part 2 - Preparing for the Linked Web of Data

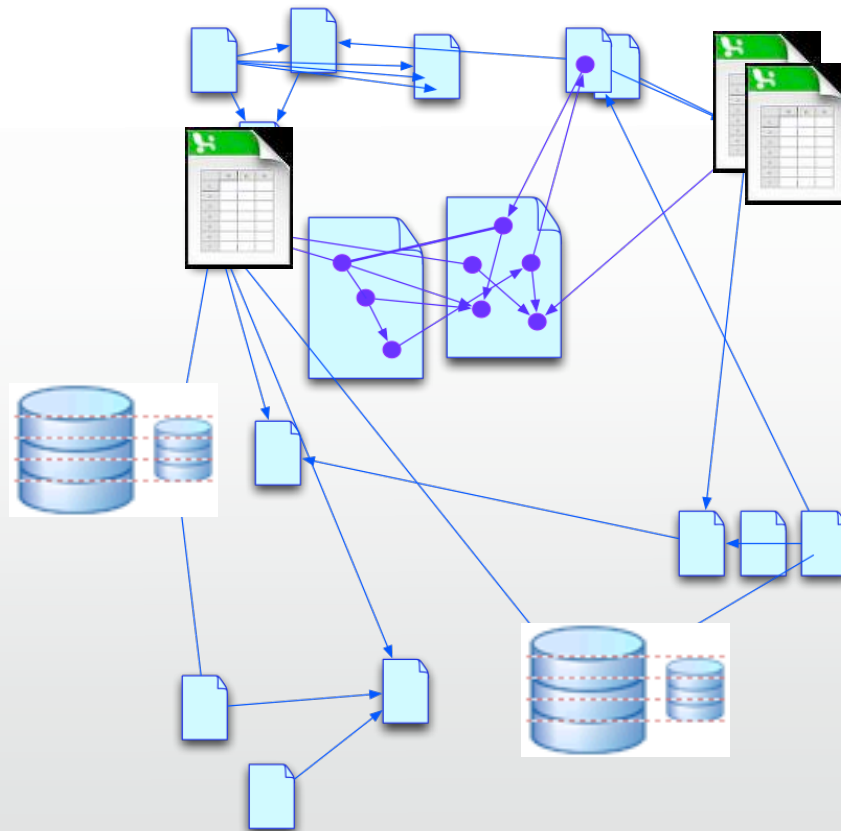
Nigel Shadbolt

GSE Annual Conference
25 January 2010
London

From a Web of documents...



To a Web of data...



Technical Principles

The four micro principles of the Semantic Web

1. All entities of interest, such as information resources, real-world objects, and vocabulary terms should be identified by URI references.
2. URI references should be dereferenceable, meaning that an application can look up a URI over the HTTP protocol and retrieve RDF data about the identified resource.
3. Data should be provided using the RDF/XML syntax
4. Data should be interlinked with other data.

The Semantic Web Revisited

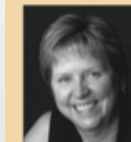
Nigel Shadbolt and Wendy Hall, *University of Southampton*
Tim Berners-Lee, *Massachusetts Institute of Technology*



Nigel Shadbolt is a professor of artificial intelligence in the School of Electronics and Computer Science at Southampton University. Contact him at nrs@ecs.soton.ac.uk.



Tim Berners-Lee is the director of the World Wide Web Consortium, a senior researcher at the Massachusetts Institute of Technology's Computer Science and Artificial Intelligence Laboratory, and a professor of computer science in the Department of Electronics and Computer Science at Southampton University. Contact him at timbl@w3.org.



Wendy Hall is a professor of computer science in the School of Electronics and Computer Science at Southampton University. Contact her at wh@ecs.soton.ac.uk.

Principle 1: URIs

- Uniform Resource identifier
- A Web based identifier
- You can dereference them – get something back
- Information about objects, relations, properties and values

<http://id.ecs.soton.ac.uk/person/2686>

<http://rdf.ecs.soton.ac.uk/person/2686>

<http://rdf.ecs.soton.ac.uk/project/464>

<http://rdf.ecs.soton.ac.uk/publication/11065>

<http://education.data.gov.uk/doc/school/120805>

<http://southampton.rkbexplorer.com/id/person-02686>

http://dbpedia.org/resource/Nigel_Shadbolt

Principle 2: Dereferencable

- Uniform Resource identifier
- A Web based identifier
- You can dereference them – get something back
- Information about objects, relations, properties and values

▼ Southampton ECS People: Professor Nigel R Shadbolt		
Southampton ECS People: Professor Nigel R Shadbolt	Description	This rdf document contains information about a person Southampton.
Nigel Shadbolt	Source	http://www.ecs.soton.ac.uk/people/nrs
	Title	Southampton ECS People: Professor Nigel R Shadbo
	Date Created	2009-11-26T10:53:20Z
	type	Ontology
	label	Southampton ECS People: Professor Nigel R Shadbo
	Appellation	Professor
	Family Name	Shadbolt
	Full Name	Professor Nigel R Shadbolt
	Given Name	Nigel R
	Role	http://id.ecs.soton.ac.uk/role/2686
	member Of	http://id.ecs.soton.ac.uk/project/221 http://id.ecs.soton.ac.uk/project/293 http://id.ecs.soton.ac.uk/project/312 http://id.ecs.soton.ac.uk/project/353 http://id.ecs.soton.ac.uk/project/361 http://id.ecs.soton.ac.uk/project/381 http://id.ecs.soton.ac.uk/project/395 http://id.ecs.soton.ac.uk/project/443 http://id.ecs.soton.ac.uk/project/44 http://id.ecs.soton.ac.uk/project/45 http://id.ecs.soton.ac.uk/project/463 http://id.ecs.soton.ac.uk/project/464 http://id.ecs.soton.ac.uk/project/465 http://id.ecs.soton.ac.uk/project/466 http://id.ecs.soton.ac.uk/project/467 http://id.ecs.soton.ac.uk/project/508 http://id.ecs.soton.ac.uk/project/623 http://id.ecs.soton.ac.uk/project/629 http://id.ecs.soton.ac.uk/project/630
	type	Person
	family name	Shadbolt
	givenname	Nigel R
	homepage	http://users.ecs.soton.ac.uk/nrs/
	img	http://www.ecs.soton.ac.uk/image.php?id=person_268 http://www.ecs.soton.ac.uk/image.php?id=person_268&checksum=6c2158b33a0c10e328ec62f9ed1cc73
	mbox	mailto:nrs@ecs.soton.ac.uk
	name	Professor Nigel R Shadbolt

Principle 3: RDF back

- Uniform Resource identifier
- A Web based identifier
- You can dereference them – get something back
- Information about objects, relations, properties and values

▼ Southampton ECS Projects: MIMEX: Multivariant Information Management and Exploitation

Southampton ECS Projects: MIMEX: Multivariant Information Management and Exploitation	Description	This rdf document contains information about a University of Southampton.
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	Date Created	2009-11-26T10:58:31Z
	type	Ontology
	label	Southampton ECS Projects: MIMEX: Multivariant
http://id.ecs.soton.ac.uk/project/443	associated With	http://id.ecs.soton.ac.uk/UoS
		Name General Dynamics
		type Organization
		Name University of Cardi
		type Organization
		Name Ministry of Defenc
		type Organization
	associated With Unit	http://id.ecs.soton.ac.uk/UoS/ECS
	Name	MIMEX: Multivariant Information Management
	Theme	http://id.ecs.soton.ac.uk/theme/106
		http://id.ecs.soton.ac.uk/theme/127
		http://id.ecs.soton.ac.uk/theme/130
		http://id.ecs.soton.ac.uk/theme/38
		http://id.ecs.soton.ac.uk/theme/66
	Web Page	https://www.edefence.org/mimex
	run By Group	http://id.ecs.soton.ac.uk/group/iam
	begins	in Calendar Clock
		day
		hour
		minute
		month
		year
		type
		in Calendar Clock Data Type
		2006-07-03T00:00:00Z
		type Instant
	ends	in Calendar Clock
		day
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		minute
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		type Instant

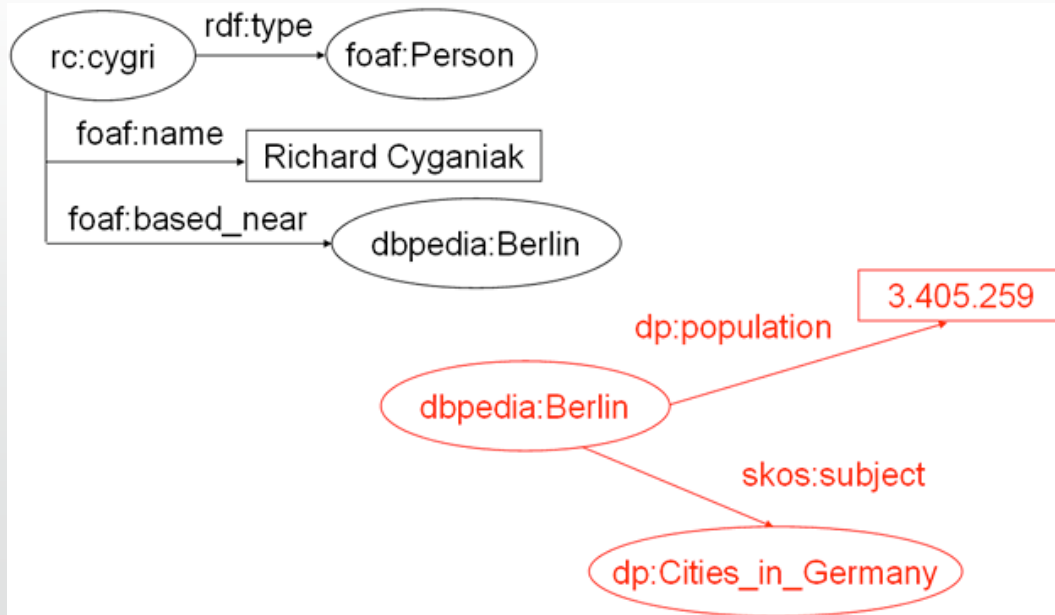
Essential RDF

- Statements about resources in the form of subject-predicate-object
- A knowledge representation language for the Web
- Represents information as sets of triples
- Every element of a triple can be a URI or literal
- Sets of RDF triples can be represented as graphs

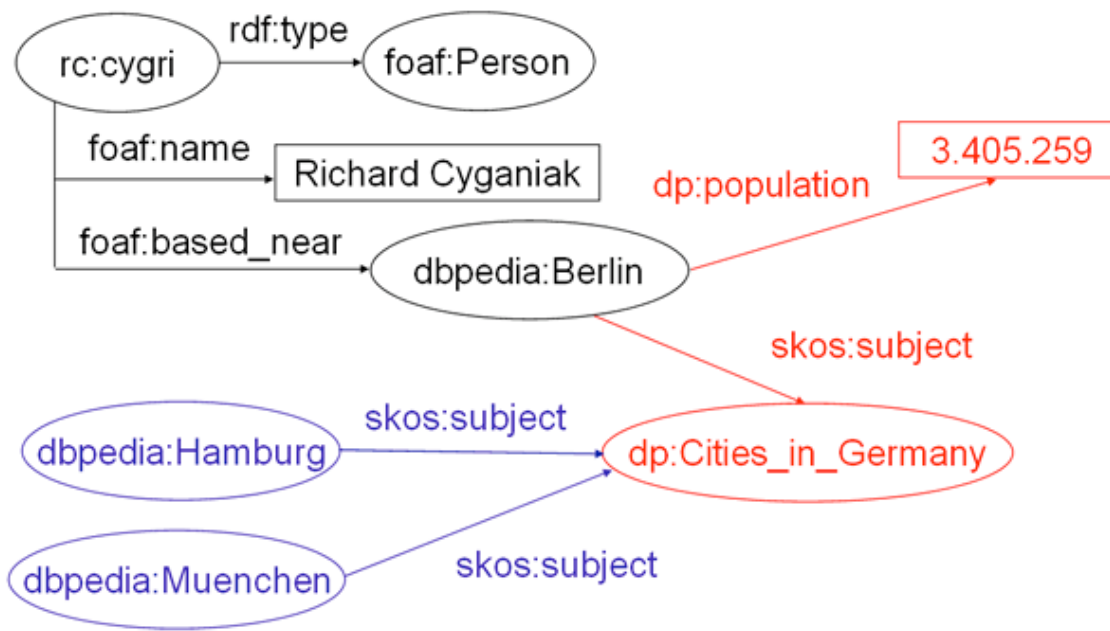
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rc:cygri	foaf:name	"Richard Cyganiak" .
rc:cygri	foaf:based_near	dbpedia:Berlin .
dbpedia:Berlin	dp:population	"3,405,259"
dpedia:Berlin	skos:subject	dp:Cities_in_Germany.

Essential RDF

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Principle 4: Link data



Principle 4: Link data

<http://rdf.ecs.soton.ac.uk/person/2686>

<http://southampton.rkbexplorer.com/id/person-02686>

http://dbpedia.org/resource/Nigel_Shadbolt

The screenshot displays the SIG.MA Semantic Informa Mashup interface. The main content area shows a profile for Nigel R Shadbolt, including his given name, family name, and a list of sources. The sources are listed in a table with columns for the source name, number of facts, and date. The interface also includes a search bar, a list of sources, and a detailed view of the profile with various links and metadata.

SIG.MA SEMANTIC INFORMA MASHUP

Search:

N R Shadbolt

given name: Nigel R [1]

N [1]

N R [1]

Nigel [1]

family name: Shadbolt [1]

is creator of: AKT Selected Papers 2004 [2]

INSTRUCTA-Phase II [3]

Techniques of Temporal Representation [4]

Research & Development in Expert Systems VI [5,6]

Expert Systems - A Natural History [5]

Report of the 8th Workshop of the Planning Special Interest Group [7]

Processing Reference [8]

Expert Systems in the Financial Industries [9]

Intelligent Interfaces [10]

Preliminary Report of the Workshop on Teaching AI in Departments of Psychology [11]

A Framework for Research in Cognitive Science [12]

Living Documents [13]

Tempus Fugit I: Representing Time and Change [14]

Hypermedia for knowledge engineering [15]

Human Sciences Technology Audit [16]

Final Report of the 9th Workshop of The UK Planning Special Interest Group [17]

Knowledge Technologies [18]

Education and Human-Computer Interaction [19]

Knowledge Technologies and the Semantic Web [20]

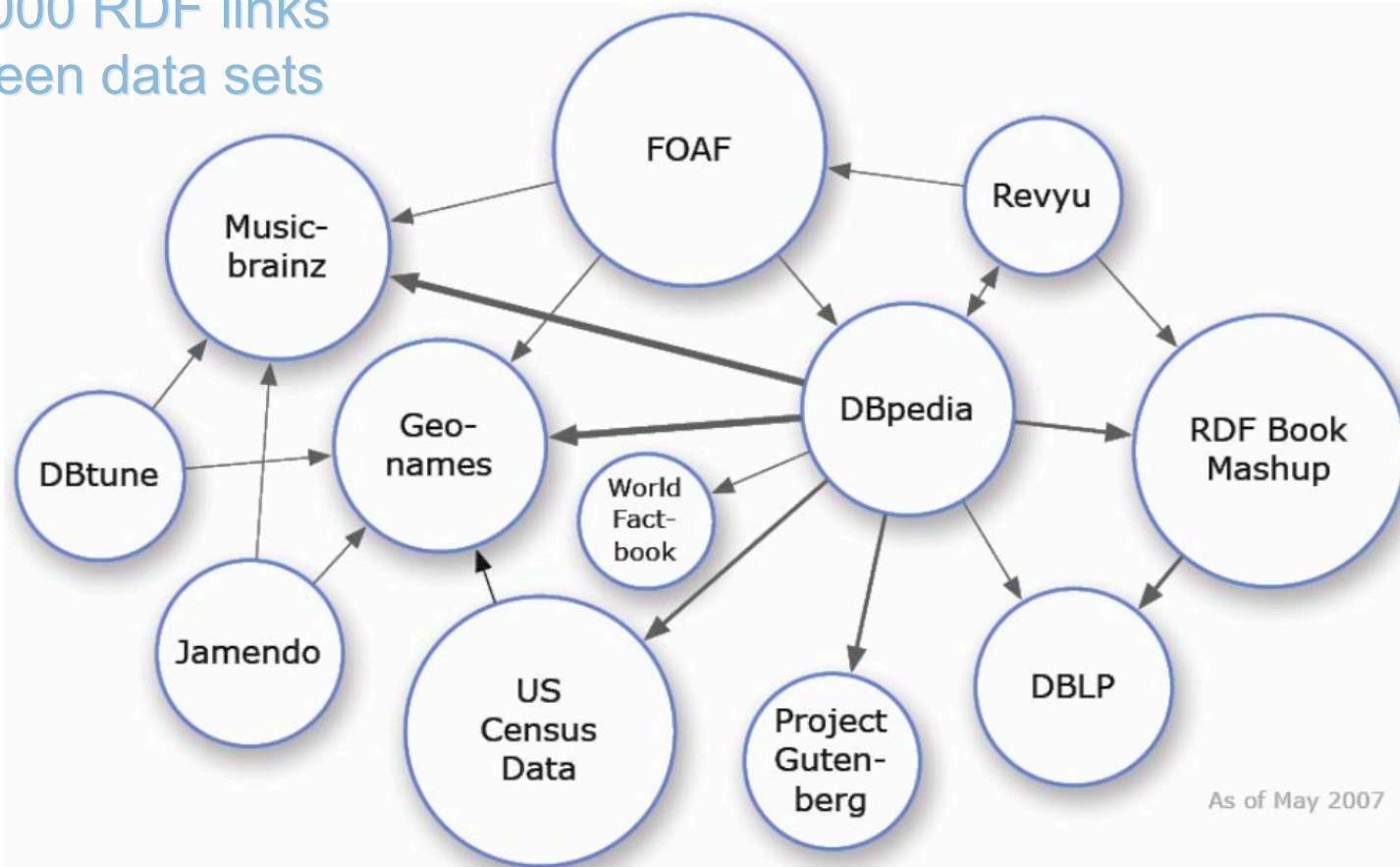
appellation: <http://www.aktors.org/ontology/portal#Prof> [1]

Sources (20) Approved (0) Rejected (0)

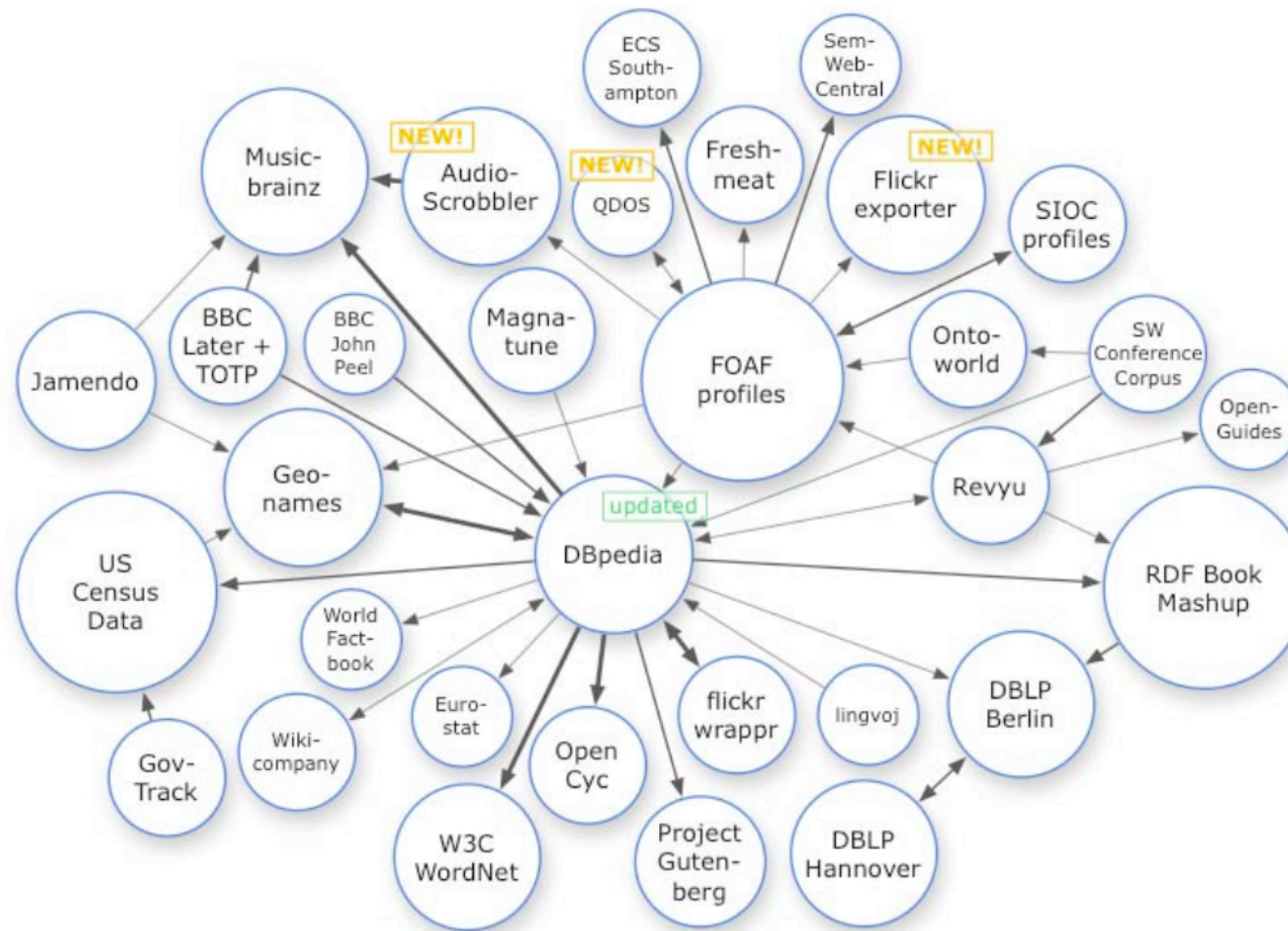
Source	Facts	Date
1 Nigel R Shadbolt	316 facts	2009-09-17
2 AKT Selected Papers 2004	4 facts	2009-09-17
3 INSTRUCTA-Phase II	3 facts	2009-09-17
4 Techniques of Temporal Representation	3 facts	2009-09-17
5 Expert Systems - A Natural History	5 facts	2009-09-17
6 Research and Development in Expert Systems VI	3 facts	2009-09-17
7 Report of the 8th Workshop of the Planning Special Interest Group	3 facts	2009-09-17
8 Processing Reference	3 facts	2009-09-17
9 Expert Systems in the Financial Industries	3 facts	2009-09-17
10 Intelligent Interfaces	3 facts	2009-09-17
11 Preliminary Report of the Workshop on Teaching AI in Departments of Psychology	3 facts	2009-09-17
12 A Framework for Research in Cognitive Science	3 facts	2009-09-17
13 Living Documents	3 facts	2009-09-17
14 Tempus Fugit I: Representing Time and Change	3 facts	2009-09-17
15 Hypermedia for knowledge engineering	3 facts	2009-09-17

Linked Data on the Web: May 2007

500 Million RDF Triples
120,000 RDF links
between data sets



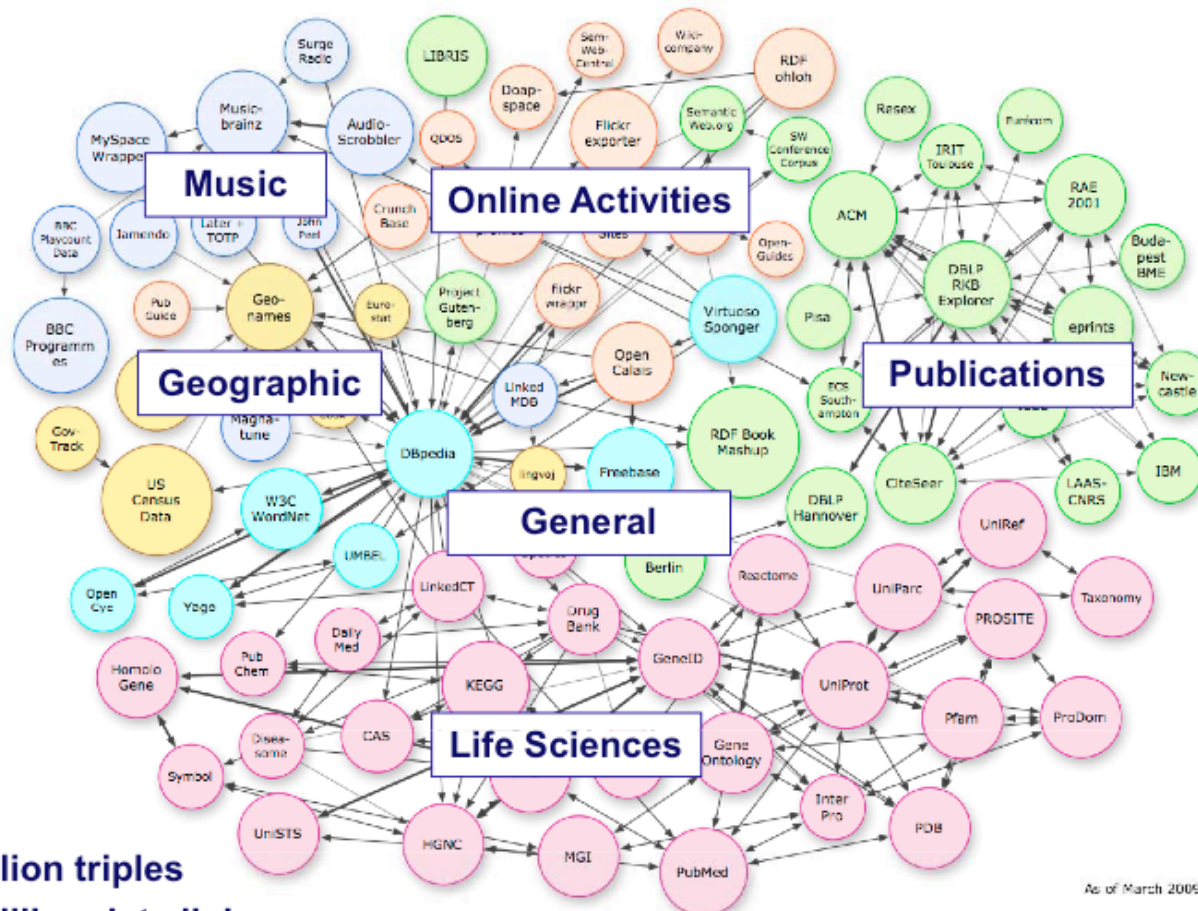
Linked Data on the Web: February 2008



Richard Cyganiak

Linked Data on the Web: March 2009

LOD Datasets on the Web: March 2009



4.5 billion triples
180 million data links

As of March 2009

Richard Cyganiak

SPARQL

- A data access language for RDF triples on the Web
- Queries across diverse data sources, whether the data is stored natively as RDF or viewed as RDF via middleware
- SPARQL contains capabilities for querying required and optional graph patterns along with their conjunctions and disjunctions

SPARQL Explorer for <http://dbpedia.org/sparql>

SPARQL:

```
PREFIX owl: <http://www.w3.org/2002/07/owl#>
PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>
PREFIX rdfa: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX foaf: <http://xmlns.com/foaf/0.1/>
PREFIX dc: <http://purl.org/dc/elements/1.1/>
PREFIX : <http://dbpedia.org/resource/>
PREFIX dbpedia2: <http://dbpedia.org/property/>
PREFIX dbpedia: <http://dbpedia.org/>
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>

PREFIX dbo: <http://dbpedia.org/ontology/>

SELECT ?name ?birth ?death ?person WHERE {
  ?person dbpedia2:birthPlace <http://dbpedia.org/resource/London> .
  ?person dbo:birthDate ?birth .
  ?person foaf:name ?name .
  ?person dbo:deathDate ?death
  FILTER (?birth < "1800-01-01"^^xsd:date) .
}
ORDER BY ?name
Results: Browse [1] Go! Reset
```

SPARQL results:

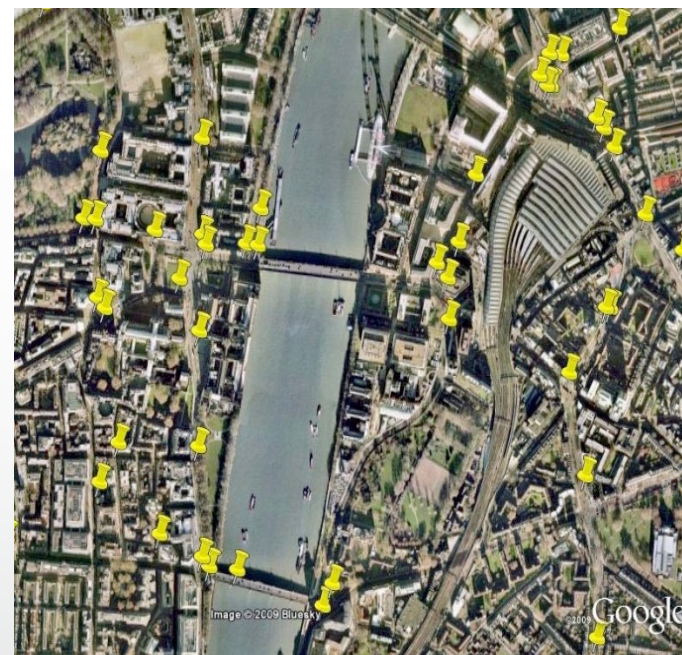
name	birth	death	person
"<small>Countess of Chatham"	"1720-11-08"^^xsd:date	"1803-04-09"^^xsd:date	:Hester_Pitt%2C_Countess_of_Chatham ↗
"Aaron Hart"	"1724-08-16"^^xsd:date	"1800-12-28"^^xsd:date	:Aaron_Hart_%2Bbusinessman%29 ↗
"Alexander Pope"	"1688-05-21"^^xsd:date	"1744-05-30"^^xsd:date	:Alexander_Pope ↗
"Alexander Schomberg"	"1720-01-01T00:00:00-05:00"^^xsd:gYear	"1804-01-01T00:00:00-05:00"^^xsd:gYear	:Alexander_Schomberg ↗
"Anne Killigrew"	"1660-01-01T00:00:00-05:00"^^xsd:gYear	"1685-06-16"^^xsd:date	:Anne_Killigrew ↗
"Aubrey George Spencer"	"1795-02-12"^^xsd:date	"1872-02-24"^^xsd:date	:Aubrey_George_Spencer ↗
"Ben Jonson"	"1572-06-11"^^xsd:date	"1637-08-06"^^xsd:date	:Ben_Jonson ↗
"Benjamin Aislable"	"1774-01-01T00:00:00-05:00"^^xsd:gYear	"2"	:Benjamin_Aislable ↗
"Benjamin Aislable"	"1774-01-01T00:00:00-05:00"^^xsd:gYear	"6"	:Benjamin_Aislable ↗
"Benjamin Aislable"	"1774-01-01T00:00:00-05:00"^^xsd:gYear	"1842-01-01T00:00:00-05:00"^^xsd:gYear	:Benjamin_Aislable ↗
"Benjamin Aislable"	"1784-03-18"^^xsd:date	"1809-01-01T00:00:00-05:00"^^xsd:gYear	:Benjamin_Bathurst_%2Bdiplomat%29 ↗

Find: Next Previous Highlight all Match case Phrase not found

The Power of Linked Public Data



**Cholera
cases**



**Bicycling traffic
accidents**

Improving Public Services



working for cycling

FillThatHole
.ORG.UK



Contents

- ▼ Hazards
 - Report a hazard
 - Map
 - List
 - Monthly Totals
- ▼ Authorities
 - List
 - League Table
- Information
 - Pothole News
 - Search
 - Help
 - Contact

User login

Username:

Password:

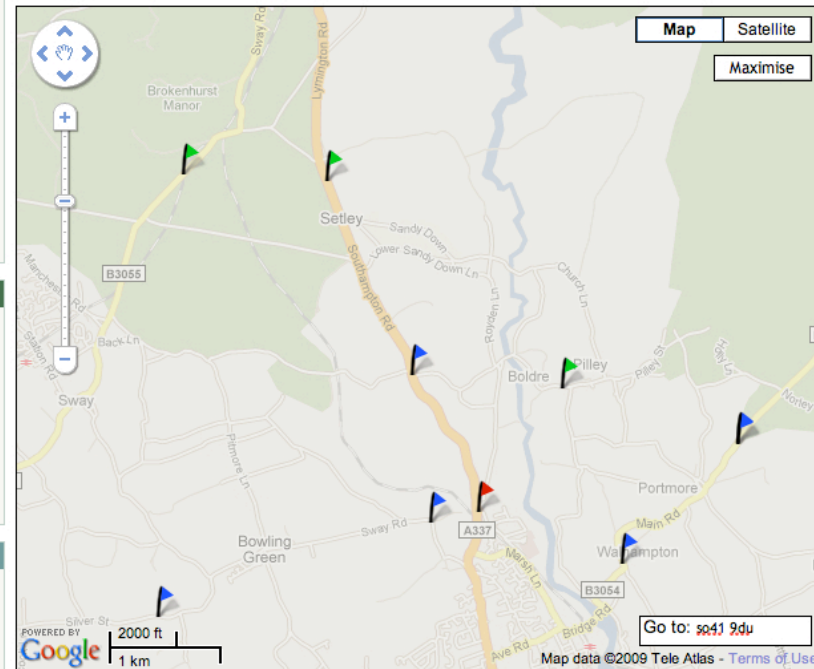
- [Create new account](#)
- [Request new password](#)

CTC Websites

- [Main CTC Site](#)
- [Accident Line](#)
- [Cycle insurance](#)
- [Forum](#)
- [Holidays](#)
- [Maps](#)
- [Shop](#)
- [Travel Insurance](#)

Map

Click on the map to zoom in, click a hazard marker flag for more information.



[Link to this view](#)

[Google Earth KML](#)

Go To Hazard

#

Site Statistics

Total reports: 23,657
Fixed reports: 8,627
Percent fixed: 36%
Reports per day: 22.1



Improving Public Services



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Contents

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Username:

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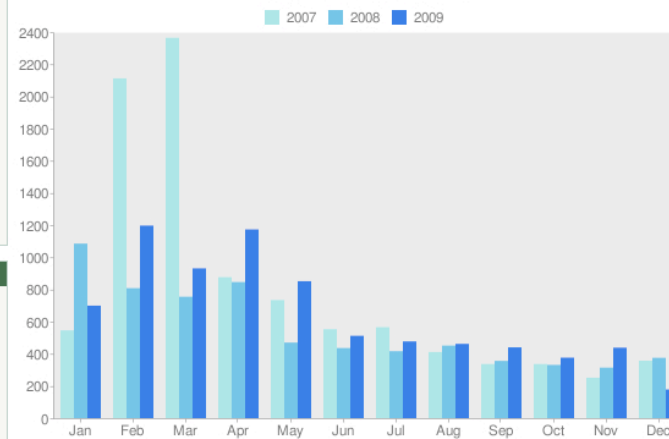
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- [Holidays](#)
- [Maps](#)
- [Shop](#)
- [Travel Insurance](#)

Monthly Totals

Hazards Reported by Month



Hazards Reported by Month

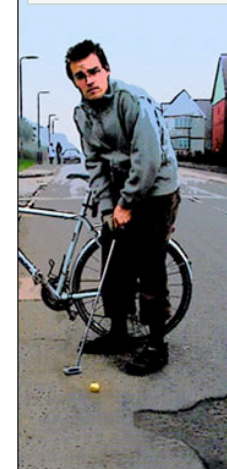
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2007	546	2112	2364	876	734	553	565	411	336	336	251	357
2008	1085	808	755	846	470	436	416	451	356	331	314	375
2009	699	1197	931	1173	851	512	477	462	440	376	438	178

Go To Hazard

#

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Improving Public Services



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Contents	
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◦ Help	
◦ Contact	

User login	
Username:	<input type="text"/>
Password:	<input type="password"/>
	<input type="button" value="Log in"/>
<ul style="list-style-type: none"> • Create new account • Request new password 	

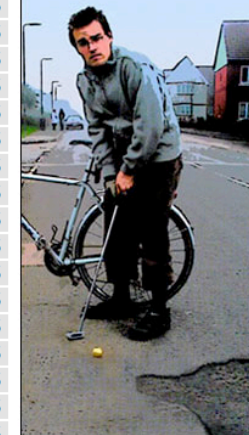
CTC Websites	
◦	Main CTC Site
◦	Accident Line
◦	Cycle insurance
◦	Forum
◦	Holidays
◦	Maps
◦	Shop
◦	Travel Insurance

League Table

Rank (Fixed %)	Authority	Total Reports	Open Reports	Fixed Reports	Fixed %
1	Torfaen	3	0	3	100%
2	Cumbria	225	32	188	85%
3	East Ayrshire	11	2	9	82%
4	Gateshead	17	3	13	81%
5	Clackmannanshire	16	3	13	81%
6	Newcastle	75	14	59	81%
7	Northumberland	202	39	140	78%
8	Durham	54	12	41	77%
9	Sefton	16	4	12	75%
10	Bolton	59	12	33	73%
11	Bracknell Forest	18	5	12	71%
12	North Tyneside	86	23	49	68%
13	Luton	8	3	5	63%
14	Kirklees	108	42	63	60%
15	Scottish Borders	21	8	12	60%
16	Rutland	6	2	3	60%
17	Aberdeenshire	32	13	19	59%
18	Waltham Forest	36	15	21	58%
19	Slough	14	5	7	58%
20	Hounslow	325	129	173	57%
21	Blackpool	8	3	4	57%
22	Halton	7	3	4	57%
23	Blackburn	38	16	21	57%
24	Suffolk	254	106	139	57%
25	Northern Ireland Roads Service	64	27	35	56%
26	Sunderland	19	7	9	56%
27	Powys	20	8	10	56%
28	Plymouth	60	26	31	54%

Go To Hazard	
#	<input type="text"/>
	<input type="button" value="Go"/>

Site Statistics	
Total reports:	23,657
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Progress to date

- Top down
 - Ministerial
 - CIO/CTOs
 - Engaged key data holders
- Middle Out
 - Civil Servants
 - Inventory of Information Assets
- Bottom up
 - Engaging with and pushed by developer community
 - Cross Gov URI workshops
 - data.gov.uk



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The screenshot shows the Number10.gov.uk website. The header includes the site name and navigation links: Home, News, Communicate, Meet the PM, History and Tour, and Number 10 TV. A search bar is also present. The main content area features a news article titled "Ordnance Survey to open up data - PM" dated Tuesday 17 November 2009. The article text states that the Prime Minister has announced that the public will have more access to Ordnance Survey maps from next year, as part of a government drive to open up data to improve transparency. It lists two bullet points: "Communities and Local Government website" and "Read more about the Make Public Data Public project". A quote from Mr. Brown is included: "I think we're on the verge of a revolution that can transform public services and the public sector. I'm speaking very specifically about how government can change to meet the needs of the times. I think we are determined to be the first government in the world to open up public information in a way that is far more accessible to the general public." The article concludes by stating that Gordon Brown said Smarter Government will help secure necessary efficiencies while building on the public services already available. It also mentions that during the Smarter Government seminar, Sir Tim Berners-Lee and Professor Nigel Shadbolt spoke about the work they have been doing on the 'Make Public Data Public' project. The sidebar on the left contains links to Latest News, Speeches and Transcripts, Statements and Articles, Prime Minister's Questions, Press Briefings, Press Notices, and Webchats. Below these links is a calendar for November 2009. The right sidebar features a Newsletter sign-up, a "Around the Web" section with a Flickr link, and a "Latest Videos" section with a video titled "The Cabinet in the East Midlands" dated Thu Nov 26 2009.

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 > Ordnance Survey to open up data - PM

News

Latest News
Speeches and Transcripts
Statements and Articles
Prime Minister's Questions
Press Briefings
Press Notices
Webchats

November 2009

M	T	W	T	F	S	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

« Oct

Tuesday 17 November 2009

Ordnance Survey to open up data - PM

The Prime Minister has announced that the public will have more access to Ordnance Survey maps from next year, as part of a government drive to open up data to improve transparency.

- Communities and Local Government website
- Read more about the Make Public Data Public project

Gordon Brown said the government and Ordnance Survey, Great Britain's national mapping agency, will open up the data relating to electoral and local authority boundaries, postcode areas and mapping information.

Mr Brown made the announcement at a Smarter Government seminar at Downing Street this afternoon.

He said:

"I think we're on the verge of a revolution that can transform public services and the public sector. I'm speaking very specifically about how government can change to meet the needs of the times. I think we are determined to be the first government in the world to open up public information in a way that is far more accessible to the general public."

Gordon Brown said Smarter Government will help secure necessary efficiencies while building on the public services already available.

During the Smarter Government seminar, Sir Tim Berners-Lee and Professor Nigel Shadbolt spoke about the work they have been doing on the 'Make Public Data Public' project. As part of the project, the Government has already released 1,100 datasets to the public.

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The Cabinet in the East Midlands
Thu Nov 26 2009

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data.gov.uk

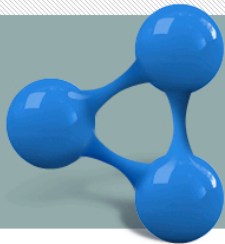
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Unlocking innovation

Working with UK Public Sector information and data



Advised by Sir Tim Berners-Lee and Professor Nigel Shadbolt and others, government are opening up data for reuse. This site seeks to give a way into the wealth of government data and is under constant development. We want to work with you to make it better.

We're very aware that there are more people like you outside of government who have the skills and abilities to make wonderful things out of public data. These are our first steps in building a collaborative relationship with you.

Search Data

Enter keyword(s) [Search](#)

e.g. [education](#), [NHS](#), [crime](#), [transport](#), [environment](#)


Powered by: [CKAN](#)

Browse for Data


[List all datasets](#)

[Common tags](#)


Most Recent Apps

**Clear Books - Companies House Data**

An accounting software app that allows you to efficiently search and

**Scottish Index of Multiple Deprivation**

Rich interactive map describing areas of concentrated deprivation across

**mycounciltax.org.uk**

mycounciltax.org.uk is an unofficial mash-up, which was built using publicly available government information.

[View all apps +](#)

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What is the Semantic Web?


Combining different data sources has never been easy but the Semantic Web will enable data to be joined easily across boundaries.




[Read more](#)

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Search Data Feeds

Your search returned 2879 records

2008 Injury Road Traffic Collisions in Northern Ireland

Name: 2008_injury_road_traffic_collisions_in_northern_ireland
Description: Calander Year statistics on Injury Road Traffic Collisions in Northern Ireland. Source agency: Police Service of Northern Ireland (PSNI) Designation...
Tags: injury-road-traffic-collisions health-well-being-and-care travel-and-transport transport-accidents-and-casualties safety roads road-safety casualties traffic road

Abandoned vehicles

Name: abandoned_vehicles_2003-04_to_2005-06
Description: Number of abandoned vehicles Source: Department for Environment Food and Rural Affairs (DEFRA): Municipal Waste Management Survey Publisher: DCLG FL...
Tags: waste

Abortions

Name: abortions_2003-05_2007
Description: The abortion rate is the number of abortions (NHS and private) per 1,000 women aged 11-49. Source: Department of Health (DoH) Publisher: Information...
Tags: health

Abortions Statistics

Name: abortions_statistics
Description: The Abortion update contains information on notifications, to the Chief Medical Officer for Scotland, of terminations of pregnancy under the Abortion ...
Tags: well-being-and-care specialist-health-services maternity-and-pregnancy-services scotland health health-and-social-care

Abortion Statistics

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Browse Common tags

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- [accommodation](#) (25)
- [alcohol](#) (35)
- [anti-social-behaviour](#) (9)
- [asylum](#) (14)
- [benefit](#) (157)
- [births](#) (33)
- [burglary](#) (8)
- [business](#) (79)
- [cancer](#) (49)
- [carbon-dioxide](#) (1)
- [care](#) (450)
- [census](#) (198)
- [child](#) (410)
- [child-protection](#) (13)
- [children](#) (305)
- [communities](#) (161)
- [crime](#) (84)
- [criminal-damage](#) (2)
- [deaths](#) (73)
- [disability](#) (36)
- [disease](#) (16)
- [drug](#) (40)
- [earnings](#) (46)
- [economic](#) (71)
- [education](#) (185)
- [electricity](#) (17)
- [emissions](#) (25)
- [employment](#) (114)
- [energy](#) (47)
- [ethnicity](#) (43)
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SPARQL search

Enter your [SPARQL](#) query against a datasource

Datasources:

Analytics

Please select a datasource

Data format:

XML

Please select a data format

Enter your SPARQL query:

```
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>
PREFIX owl: <http://www.w3.org/2002/07/owl#>
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
SELECT DISTINCT ?type
WHERE {
  ?thing a ?type
}
LIMIT 10
```

Submit

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Applications – extracting information from data

Here you will find applications that others have already created and submitted. You can view, comment on and rate all published applications.

It would be great if you could submit your applications and mashups so they can be shared back with the community.


[Submit your app](#)

RECENT APPS [View all apps +](#)

**Clear Books - Companies House Data**


An accounting software app that allows you to efficiently search and store data from over 2 million companies through the Companies House WebCheck service.

By Nick Braithwaite
21/01/2010 - 11:33

**Scottish Index of Multiple Deprivation**


Rich interactive map describing areas of concentrated deprivation across Scotland from 2009. Makes comparative use of previous data sets from 2006 and 2004.




By Dan Moss
21/01/2010 - 11:20

**mycounciltax.org.uk**

mycounciltax.org.uk is an unofficial mash-up, which was built using publicly available government information. mycounciltax.org.uk makes it easier to find out how much...

By Don Riden
21/01/2010 - 10:56

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Wouldn't it be good if...? [Submit your idea](#)


Ideas – the seeds of innovation


Got a great idea you'd like to see realised?


Wouldn't it be good if, for example, you could see a map that showed all the local schools, alongside their performance ratings for instant comparison? You might not be able to create such a map but you know it would be useful. Submit your ideas here and the chances are high that someone with the know-how, who shares your interest, will pick up your suggestion.


[Submit your idea](#)




Most Recent Ideas [View all Ideas +](#)

 **County Court Judgement Data**
County Court Judgement data is a matter of public record, anyone willing to pay per search is welcome to the data.
By Phil
21/01/2010 - 11:32

 **Fuel prices vs public transport provision by area**
It would be useful to see how the cost of fuel affects people in rural or remote areas where public transport may not be as prevalent or useful as in urban areas. Showing...
By Lauro
21/01/2010 - 11:24

Do you have a great idea?


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Alastair Dant (left) / David McCandless (right)

£ Massive Outgoings

Cost for average British taxpayer per day

GOVERNMENTS



ESSENTIALS

NHS



£9.05

Schools



£2.56

Defence



£3.99

TRAVEL

Roads



£3.10

LRT



£0.14

BANKING CHARGES

Recapitalisations



£9.23

SECURITY

Police



£0.53

Prisons



£0.19

Afghanistan



£0.32

GOING OUT

Arts



£0.04

Museums



£0.03

HELPING OTHERS

Child support



£1.86

Job Seekers



£0.25

Housing benefit



£1.52

Disability benefit



£1.44

Pensions



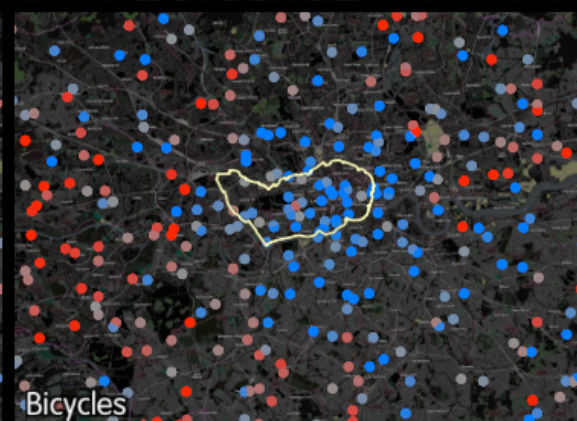
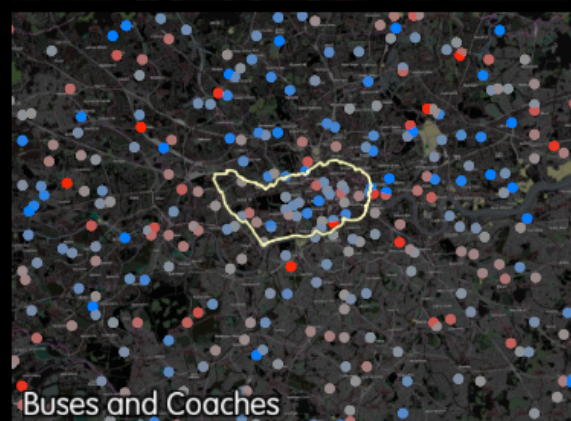
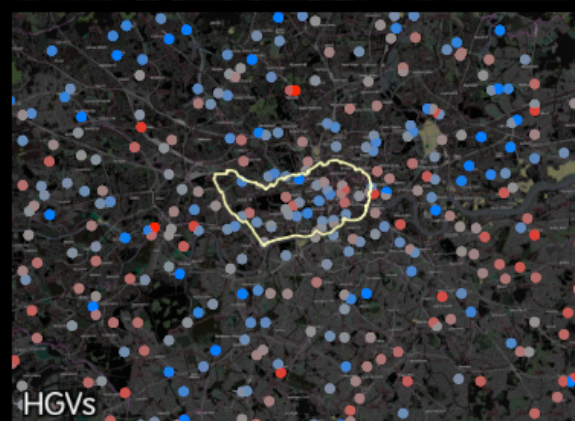
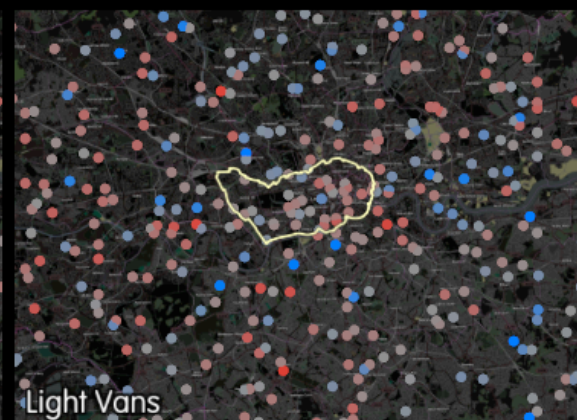
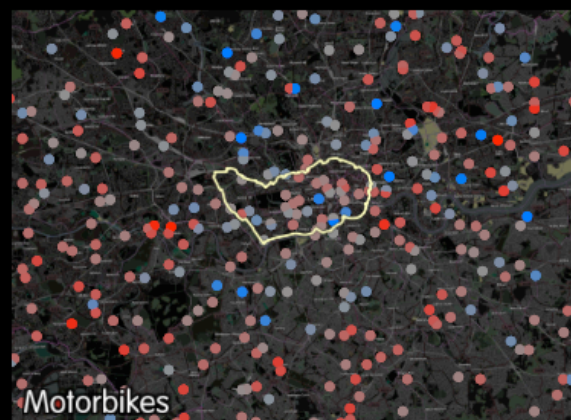
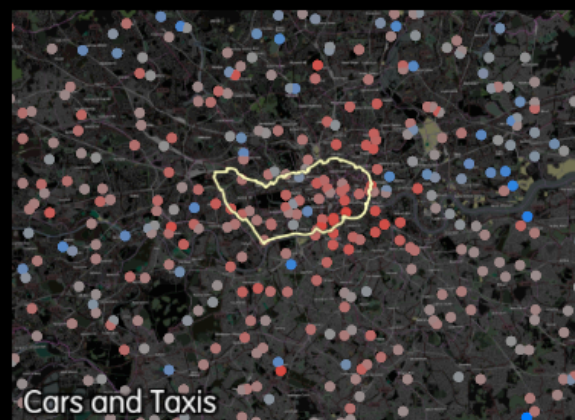
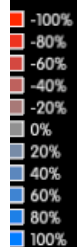
£5.55

Overseas aid



£0.43

David McCandless



2008 London Counts Compared To 2001

CC-by-SA www.itoworld.com
Map data www.openstreetmap.org: 15 Oct 2009

Chris Osborne

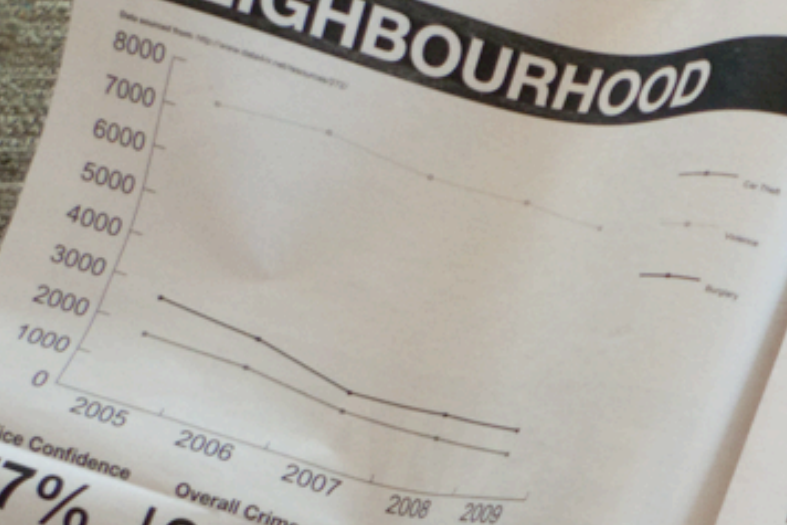


HGV Counts Along Motorways Compared To 2001
With A1 and A14

CC-by-SA www.itoworld.com
Map data www.openstreetmap.org 15 Oct 2009

Chris Osborne

NEIGHBOURHOOD



Police Confidence
77%

Overall Crime
↓39%

Gun Crime
↓37%

Knife Crime
↓17%

Robbery
↓14%

Theft
↓13%

Woundings
↓20%

10000
 fewer crime victims

Summary
 Hackney Police and the Council work very closely to tackle and prevent crime in the borough. Seventy seven per cent of residents now have confidence in Hackney's Police, according to the British Crime Survey, a rise of 55 per cent in less than two years.

The survey also reveals that crime in Hackney has dropped 36.5 per cent over five years, the second largest drop of all London boroughs. Last year, there were ten thousand fewer victims of crime in Hackney than five years ago.

In 2008/09, gun crime was reduced by over 37 per cent and knife crime by 17 per cent. Youth crime also fell by 10 per cent. Satisfaction with the Police and the Fire Brigade are six per cent above the London average.

— Hackney Council

ALLOTMENTS

- 1 St John's Road
Entrance at rear of 57 St John's Road
- 2 Acker Terrace
Entrance at north end of Church Road
- 3 Springdale Road
Entrance between 40 and 44 Springdale Road
- 4 Church Walk
Entrance at south end of Church Walk
- 5 Queensbridge Road
At rear of 205 Queensbridge Road
- 6 Manor Gardens
Western Road
- 7 Overbury Street
Corner of Overbury Street and Rushmore Road
- 8 Leaside Road
Entrance at west side of railway bridge over Leaside Road
- 9 Spring Lane
Entrance on Spring Lane at side of River Lee
- 10 Spring Hill
North west corner of sports field



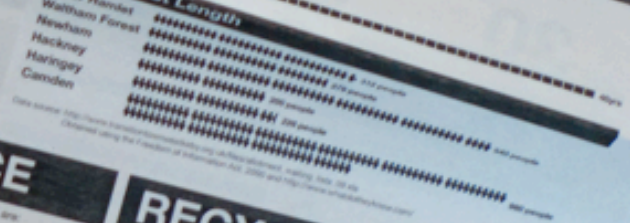
Allotment Plots

Tower Hamlet	282	Waltham Forest	1,382
Newham	415	Hackney	113
Haringey	1,715	Camden	195

Waiting List Time

Tower Hamlet	18 yrs
Waltham Forest	18 yrs
Newham	18 yrs
Hackney	18 yrs
Haringey	18 yrs
Camden	18 yrs

Waiting List Length

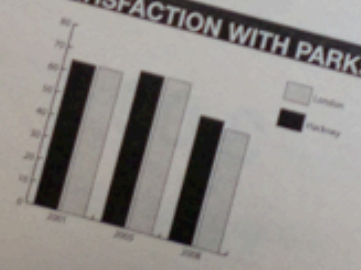


GREEN SPACE

23%
 by land area in Hackney

- Your nearest parks are:
- Hackney Marshes (10 mins east)
 - Victoria Park (15 mins south west)
 - London Fields (20 mins south west)

% SATISFACTION WITH PARKS



RECYCLING

Your nearest Recycling and Reuse Center is on South Access Road, Walthamstow, E17 (via Marshhouse Avenue, near Low Hall Manor Business Centre).

Open every day of the year, except on 25 December, 26 December and 1 January. Open from 8.30am to 5.15pm. South Access Road is for mixed, bulky household waste and trade waste. This site does not accept:

If you intend to use a van to bring your waste please call 020 8509 3664 at least 24 hours prior to visiting the site. Vans are only allowed to the site between 6.30am and 4pm Monday to Saturday.

You can recycle the following items at this site:

- Bicycles
- Car batteries
- Cardboard
- Computers and printers
- Cooking oil
- Electrical items
- Engine oil
- Food/drink cans and foil
- Furniture in good condition
- Garden waste
- Gas bottles
- Glass bottles and jars
- Hardcore/rubble
- Household batteries
- Long life light bulbs
- Metal
- Mobile telephones
- Paper
- Plasterboard
- Plastic bottles
- Reusable

TRAVEL TIMES

Times are based on TfL Journey Planner for a journey arriving at 9:30am

Oxford Circus

41 mins



42 mins

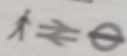


Tottenham Court Road

37 mins



47 mins



King's Cross

30 mins



35 mins



Victoria

51 mins

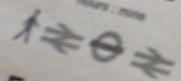


45 mins



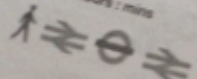
Manchester

2:44 hours : mins



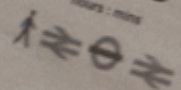
Paris

3:00 hours : mins



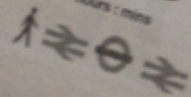
Edinburgh

5:00 hours : mins



Bristol

3:00 hours : mins



LOCAL TRANSPORT



Route finder

Start: Tottenham Court Road

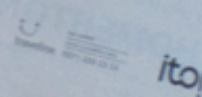
Destination	Route	Time
236 Tottenham Court Road	1	10 mins
242 Tottenham Court Road	1	15 mins
276 Tottenham Court Road	1	20 mins
308 Tottenham Court Road	1	25 mins
458 Tottenham Court Road	1	30 mins

Destination finder

Destination	Route	Time
236 Tottenham Court Road	1	10 mins
242 Tottenham Court Road	1	15 mins
276 Tottenham Court Road	1	20 mins
308 Tottenham Court Road	1	25 mins
458 Tottenham Court Road	1	30 mins

Destination	Route	Time
236 Tottenham Court Road	1	10 mins
242 Tottenham Court Road	1	15 mins
276 Tottenham Court Road	1	20 mins
308 Tottenham Court Road	1	25 mins
458 Tottenham Court Road	1	30 mins

For free cycle training in Hackney, call 020 8356 2897



Why does this matter to you

- Supports information interoperability
- The Sum is greater than the parts
- Exploitation of
 - open data
 - open standards
- Can apply to data intranets as well as extranets
- Publishing, news, media, content services, manufacturing, retail, supply chains, finance, all classic examples where there is heterogeneous information that could be shared, linked, mapped and enriched using this approach



Thank you

- Any further information

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