

<http://eprints.ecs.soton.ac.uk/id/eprint/21666>

Pragmatics of Semantic Technologies in Education: Linked Data

SemHE '10: Semantic Web Applications in Higher Education

University of Southampton, UK

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UNIVERSITY OF
Southampton
School of Electronics
and Computer Science



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Linked Data – a little motivation

The screenshot shows the data.gov.uk website in a browser window. The browser's address bar displays 'http://data.gov.uk/'. The website header includes the HM Government logo and the text 'data.gov.uk' with a 'BETA' badge. A navigation bar contains links: Home, Blog, Data, SPARQL, Apps, Ideas, Forum, Wiki, Resources, and About. A search bar is located on the right side of the navigation bar. The main content area features a large banner with the text 'Unlocking innovation' and 'Working with UK Public Sector information and data', accompanied by a blue molecular structure graphic. Below the banner, there is a 'Latest datasets' section listing recent updates: 18 June (Estimated government workforce), 14 June (More COINS public spending data), 10 June (Lists of all Special Advisers and Cabinet Office staff), and 4 June (The COINS database). A 'What we do' section explains the site's role in the Government's Transparency programme. On the right sidebar, there are buttons for 'Subscribe by RSS', 'Community Log in / Sign up', and 'Local Data Panel'. Below these, a section titled 'What is the Semantic Web?' explains the concept of combining different data sources. At the bottom of the sidebar, there is a 'Digital Engagement Twitter stream' featuring a tweet from 'RT'. The footer includes a 'Search Data' section with a search bar and a 'Browse for Data' section with a 'Random dataset' link.

Unlocking innovation | data.gov.uk

data.gov.uk

Home Blog Data SPARQL Apps Ideas Forum Wiki Resources About

Unlocking innovation

Working with UK Public Sector information and data

Subscribe by RSS

Community Log in / Sign up

Local Data Panel

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

Digital Engagement Twitter stream

RT

Search Data

Enter keyword(s) Search

Browse for Data

Random dataset

DATA.gov

http://www.data.gov/

Wittgenstein

News WRPMP Single (24) And same as sameas Furniture iPhone ECS UoS DH ReSIST MacOS X Football RKB ENT

DATA Data.gov

An Official Web Site of the United States Government

Sunday, June 20, 2010 Text: A+ A- A Share

DATA.gov
EMPOWERING PEOPLE

HOME DATA TOOLS COMMUNITY METRICS DIALOGUE

A GLOBAL MOVEMENT TO DEMOCRATIZE DATA

VIEW MORE ▶

Most Popular Datasets

1. US Topo 7.5-minute map for Imperial, TX
2. U.S. Overseas Loans and Grants (Greenbook)
3. Worldwide M1+ Earthquakes, Past 7 Days
4. Latest Volumes of Foreign Relations of the...
5. MyPyramid Food Raw Data

SEARCH OUR CATALOGS

Search our catalogs.. SEARCH ▶

APPS



With so much government data to work with, developers are creating a wide variety of applications, mashups, and visualizations. From crime statistics by neighborhood to the best towns to find a job to seeing the environmental health of your community—these applications arm citizens with the information they need to make decisions every day. Enjoy these highlights of the hundreds of applications available.

COMMUNITY

Data.gov is leading the way in democratizing public sector data and driving innovation. The data is being surfaced from many locations making the Government data stores available to researchers to perform their own analysis. Developers are finding good uses for the datasets, providing interesting and useful applications that allow for new views and public analysis. This is a work in progress, but this movement is spreading to cities, states, and other countries. After just one year a community is born around open government data.

Just look at the numbers:

- 6 Other nations establishing open data
- 8 States now offering data sites
- 8 Cities in America with open data
- 236 New applications from Data.gov datasets

SEMANTIC WEB

As the Web of linked documents evolves to include the Web of linked data, we're working to maximize the potential of Semantic Web technologies to realize the promise of Linked Open Government Data.

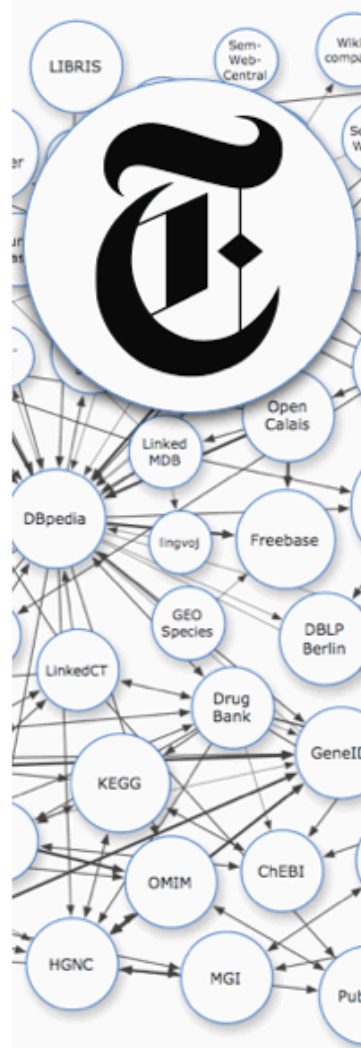


Thanks to our collaboration with the **Tetherless World Constellation** at the **Rensselaer Polytechnic Institute**, Data.gov is now hosting one of the largest open collections of RDF datasets in the world! Check out some of their semantic mashups **we're featuring** and read our blog entry to learn more about where we are, where we're going, and why we think this

The New York Times

Linked Open Data BETA

Search data.nytimes.com

**data.nytimes.com**

For the last 150 years, The New York Times has maintained one of the most authoritative news vocabularies ever developed. In 2009, we began to publish this vocabulary as linked open data.

The Data

As of 13 January 2010, The New York Times has published approximately 10,000 subject headings as [linked open data](#) under a [CC BY](#) license. We provide both [RDF](#) documents and a human-friendly [HTML](#) versions. The table below gives a breakdown of the various tag types and mapping strategies on data.nytimes.com.

Type	Manually Mapped Tags	Automatically Mapped Tags	Total
People	4,978	0	4,978
Organizations	1,489	1,592	3,081
Locations	1,910	0	1,910
			9,969

Browse individual data records:[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)**SKOS Files**

Download all of the data records as [SKOS](#) Files.

- [People](#)
- [Organizations](#)
- [Locations](#)

Using Our Linked Data

Want to learn more about the nuts and bolts of our RDF documents? [This page](#) provides technical documentation. [This blog post](#) provides step-by-step instructions for building your own NYT Linked Data Application.



Text only Help

Search

Explore the BBC

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MUSIC BETA

GENRES ARTISTS REVIEWS NEWS BLOG

QUICK FIND Enter an artist name ...

BBC Music > Artists > Iron Maiden

Iron Maiden

Formed 1975.
English heavy metal band

PLAYED MOST ON BBC RADIO



Robert Knight/Redferns

Biography

Iron Maiden are an English heavy metal band from Leyton in East London, formed in 1975. The band is directed by founder, bassist and songwriter Steve Harris. Since their inception, the group has released a collective total of thirty albums: fourteen studio albums, seven live albums, four EPs and five compilations.

Pioneers of the New Wave of British Heavy Metal, with such an original sound they achieved success during the early 1980s and after several lineup changes, went on to release a series of platinum and gold albums. These include the US platinum-selling landmarks *The Number of the*

Now On The BBC

Bruce Dickinson's Friday Rock Show

Bruce plays brand new and classic metal with an array of top flight guests on 6 Music



Latest Tracks Played On The BBC

Run To The Hills

BBC 6 Music | [Lauren Laverne](#) 08/04/2010



Run To The Hills (Live at Maida Vale)

BBC Radio 1 | [Dev](#) 02/04/2010



Aces High

BBC 6 Music | [Jon Holmes](#) 27/02/2010




British Museum – Search object details

http://www.britishmuseum.org/research/search_the_collection_database/search_object_details.aspx?objectId=11763

News WRPMO Single (24) And same as sameas Furniture iPhone ECS UoS DH ReSIST MacOS X Football RKB ENT iPhone App

British Museum – Search object ...






AN16456004

© The Trustees of the British Museum

[Larger image](#)

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Gallery Side: right Side: left

Department: Ancient Egypt & Sudan

Registration number: .24

BM/Big number: 24

Additional IDs
BS.24

Location:
G4/CSE

[Commission photography](#)

[Back to search results](#)

[Back to search](#)

Excavated/Findspot: Fort Saint Julien ([all objects](#))

Date
196BC

Period/Culture
Ptolemaic ([scope note](#) | [all objects](#))

Description
Part of grey and pink granodiorite stela bearing priestly decree concerning Ptolemy V in three blocks of text: Hieroglyphic (14 lines), Demotic (32 lines) and Greek (53 lines).

Inscriptions
Inscription Type: inscription
Inscription Language: Greek

Inscription Type: inscription
Inscription Script: hieroglyphic
Inscription Language:
Inscription Comment: The inscription is a decree passed by a council of priests, one of a series that affirm the royal cult of the 13 year-old Ptolemy V on the first anniversary of his coronation.

Inscription Type: inscription
Inscription Script: demotic
Inscription Language:

Dimensions
Length: 112.3 centimetres (max)
Width: 75.7 centimetres
Thickness: 28.4 centimetres

[More about object](#) **Conservation**

[April 2010 – Temporary Exhibition](#) +

[April 1992 – Examination](#) +

[About these records](#)

◀ Previous 4 of 26 Next ▶

One error in opening the page. For more information, choose Window > Activity.

Repositories

- **Eg Dspace, ePrints**
- **Open sharing of material (usually)**
- **Benefit scientific research**
 - Makes available results
 - Quickly
 - Accessible to almost all
- **Benefit researchers**
 - A vehicle for publication and easy access
 - Reputation is enhanced
 - Online access is many times more seen than paper
- **Some argue**
 - Researchers do the work, often funded by government
 - They give the outputs to publishers (or even pay)
 - Then they pay to get the outputs back from the publishers

- **Which repositories?**

- Institutional
- Professional organisation
- Governments and other stakeholders
- Publishers
- Third parties

- **What?**

- Open Archive people are concerned to make the content public
- Here, we are concerned primarily with the metadata

- **Metadata publishing should be non-controversial**

- But many organisations do not understand!

CERN DD/OC

Information Management: A Proposal

Tim Berners-Lee, CERN/DD

March 1989

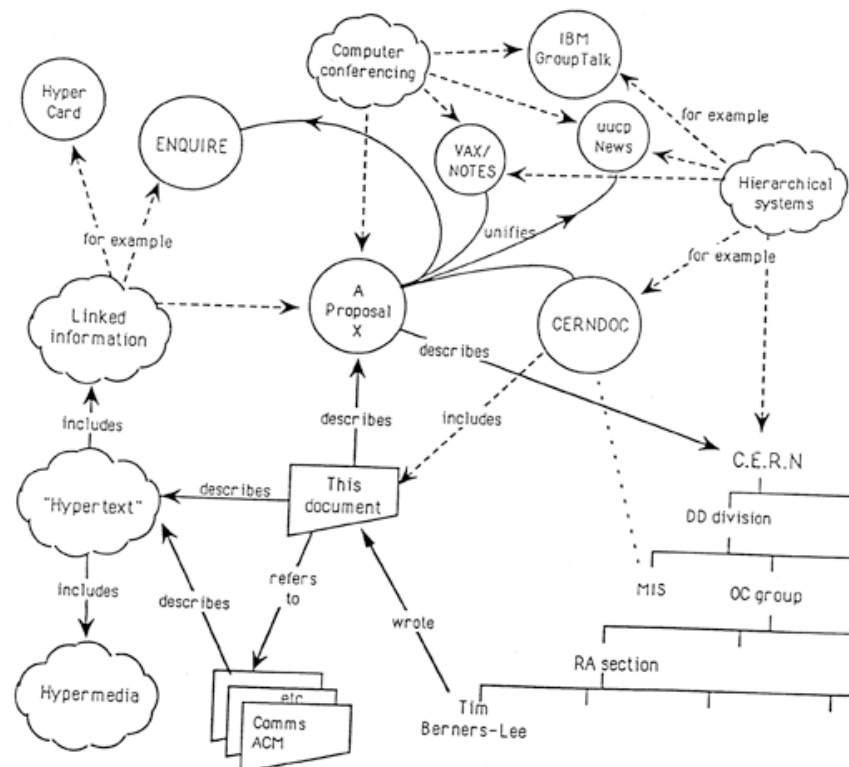
<http://www.w3.org/History/1989/proposal.html>

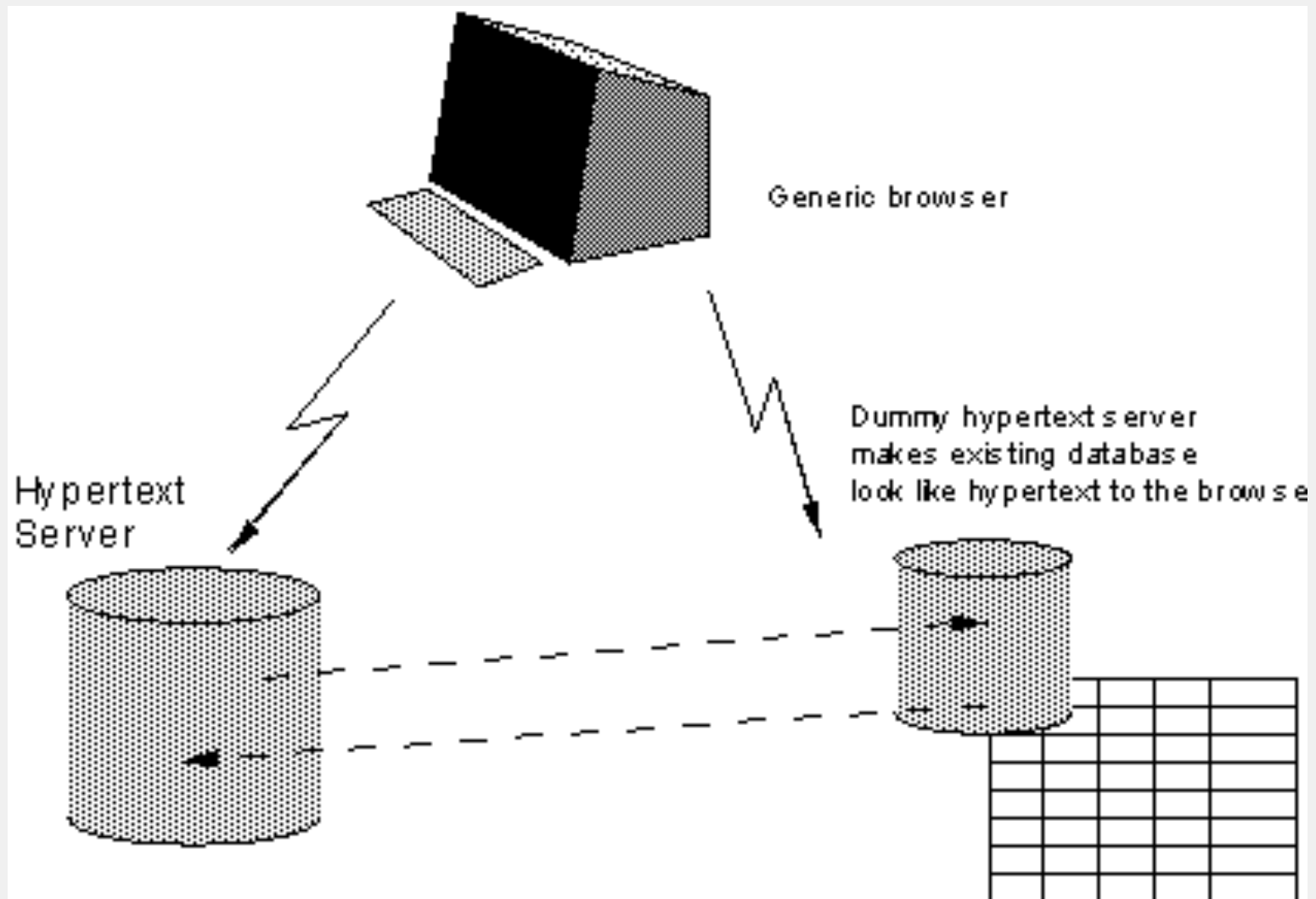
Information Management: A Proposal

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





Linked Data

Tim Berners-Lee speaks on Linked Data

This slide set was presented at the TED 2009 conference, "The Great Unveiling" in Long Beach, CA. USA, 4, Feb 2009.

- **Tim Berners-Lee**

- <http://www.w3.org/2009/Talks/0204-ted-tbl/>
- “the Semantic Web done right, and the Web done right”



Linked Data Principles

1. Use URIs as names for things

- **Everything**
 - If you don't name something you can't talk about it
 - Things of course
 - Year of publication
 - Ideas
 - ...
- **Cool URIs**
 - Think of the consumer/customer
 - https://secure.ecs.soton.ac.uk/gizmos/person_by_username.php?username=hg
 - <https://secure.ecs.soton.ac.uk/person/username/hg>
- **RESTful Interfaces**
- **Ambiguity**
 - URIs help to avoid it, especially if you...

2. Use HTTP URIs so that people can look up those names

- HTTP URI names come with an excellent look up mechanism
- And ownership, etc.

3. When someone looks up a URI, provide useful information, using the standards (RDF, SPARQL)

- **So they know what you mean**
- **Deliver some human readable data**
 - html
- **Deliver some machine processable data**
 - RDF
 - JSON
 - CSV
 - text

RDF (Resource Description Framework)

“Hugh Glaser works for the University of Southampton”

person-00021

name

"Hugh Glaser"

person-00021

works-for

Southampton_University

Southampton_University

label

"The University of Southampton"

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How to Publish Linked Data on the Web:- <http://www4.wiwiiss.fu-berlin.de/bizer/pub/LinkedDataTutorial/>

RDF (Resource Description Framework)

“Hugh Glaser works for the University of Southampton”

```
<http://southampton.rkbexplorer.com/id/person-00021>
```

```
<http://xmlns.com/foaf/0.1/name>
```

```
"Hugh Glaser" .
```

```
<http://southampton.rkbexplorer.com/id/person-00021>
```

```
<http://aktors.org/ontology/portal#works-for>
```

```
<http://dbpedia.org/resource/Southampton_University> .
```

```
<http://dbpedia.org/resource/Southampton_University>
```

```
<http://www.w3.org/2000/01/rdf-schema#label>
```

```
"The University of Southampton" .
```

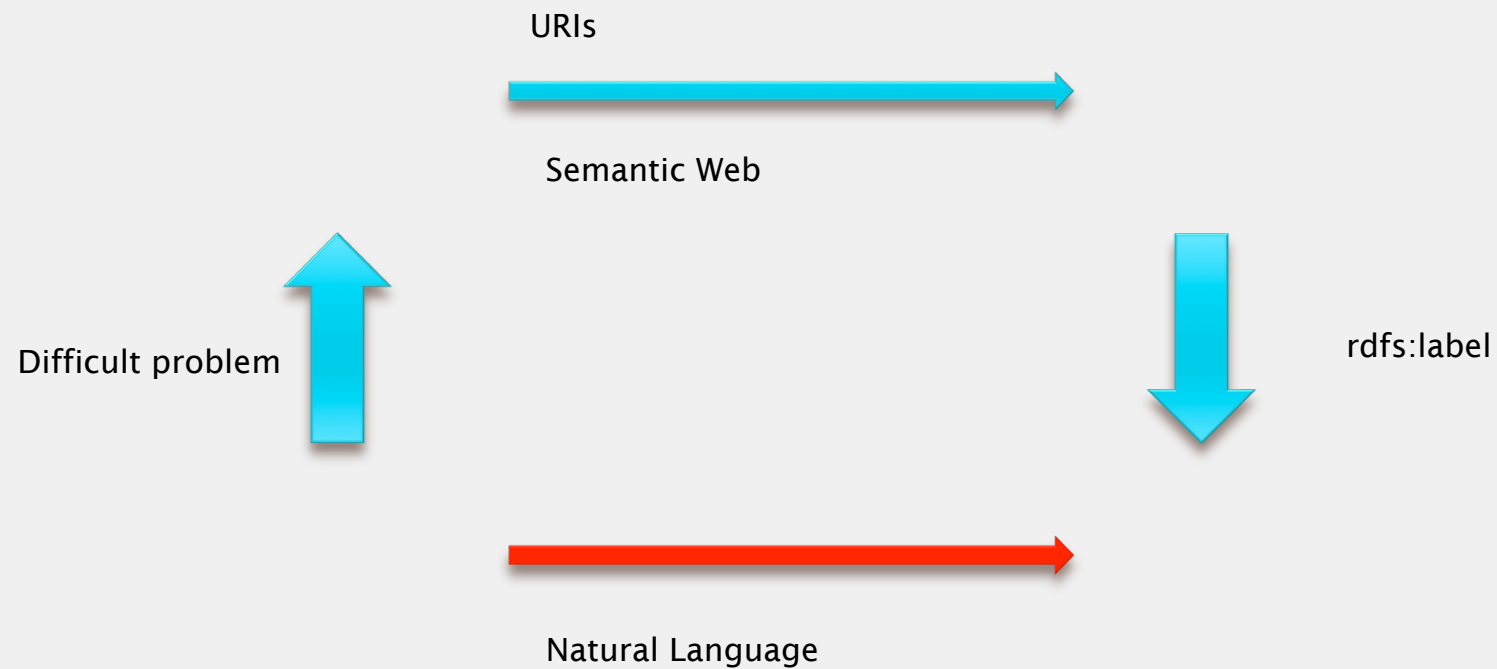
RDF (Resource Description Framework)

- **RDF Triples constitute a graph**
 - <subject-uri> <predicate-uri> <object-uri>
 - <subject-uri> <predicate-uri> “String”
- ***ontologies* define vocabularies, types and relationships**
- **Agreed URIs facilitate linkage between datasets**

4. Include links to other URIs. so that they can discover more things

- **“Foreign” URIs**
 - `dbpedia:Southampton_University`
- **Equivalence**
 - `owl:sameAs`
 - `skos:exactMatch`
 - ...

Making Processing “safer”



Example – This Presentation in HTML

Pragmatics of Semantic Technologies in Education: Linked Data – ECS EPrints Repository

http://eprints.ecs.soton.ac.uk/21666/

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School of Electronics and Computer Science

Search Enter keywords here go

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University of Southampton > ECS > Research > Publications
Logged in as **Glaser, Hugh** | [Manage my deposits](#) | [Manage Records](#) | [Saved searches](#) | [Admin](#) | [Logout](#)

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- Modify REF2013 Information

RSS 1.0 Feed

RSS 2.0 Feed


Atom Feed

Pragmatics of Semantic Technologies in Education: Linked Data

URI & RDF

Glaser, H. (2010) Pragmatics of Semantic Technologies in Education: Linked Data. In: *SemHE '10: The Second International Workshop on Semantic Web Applications in Higher Education*, 2010-11-03, University of Southampton, UK. (Unpublished)Full text not available from this repository.

Item Type: Conference or Workshop Item

Creator/Authors:  [Hugh Glaser](#)

Research Group: [Intelligence, Agents, Multimedia](#)

Date: 03 November 2010

Information about this record:


Performance Indicator: EZ~01~01~05

ID Code: 21666

Last Modified: 01 Nov 2010 19:03

Deposited On: 01 Nov 2010 19:03 by **Glaser, Hugh**

Tools & Metadata

ID Plus Text Citation 


- [Look up in Google Scholar](#)

Corrections

ECS staff and postgraduates may [modify this record](#)

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This Presentation in RDF

```
http://eprints.ecs.soton.ac.uk/cgi/export/eprint/21666/RDFN3/ecs-eprint-21666.n3
http://eprints.ecs.soton.ac.uk/cgi/export/eprint/21666/RDFN3/ecs-eprint-21666.n3
@prefix dct: <http://purl.org/dc/terms/> .
@prefix ecs: <http://rdf.ecs.soton.ac.uk/ontology/ecs#> .

<>
cc:attributionName "University of Southampton, School of Electronics and Computer Science"^^xsd:string;
cc:attributionURL <http://www.ecs.soton.ac.uk/>;
cc:license <http://creativecommons.org/publicdomain/zero/1.0/>;
dct:license <http://creativecommons.org/publicdomain/zero/1.0/>;
dct:publisher <http://id.ecs.soton.ac.uk/UoS/ECS>;
dct:rightsHolder <http://id.ecs.soton.ac.uk/UoS>;
foaf:primaryTopic <http://eprints.ecs.soton.ac.uk/id/eprint/21666>;
rdfs:comment "While this data is made freely available, you may attribute it if you wish. Also, we would love to hear how
it is being used. Contact us at webmaster@ecs.soton.ac.uk to tell us about cool things you have done with it."^^xsd:string .

<http://eprints.ecs.soton.ac.uk/21666/>
dc:format "text/html";
dc:title "HTML Summary of #21666 Pragmatics of Semantic Technologies in Education: Linked Data";
foaf:primaryTopic <http://eprints.ecs.soton.ac.uk/id/eprint/21666> .

<http://eprints.ecs.soton.ac.uk/id/eprint/21666#authors>
rdf:_1 epid:person/ext-21 .

<http://eprints.ecs.soton.ac.uk/id/eprint/21666>
bibo:authorList <http://eprints.ecs.soton.ac.uk/id/eprint/21666#authors>;
bibo:presentedAt epid:event/ext-c3b9960fab197c45ac27112f4d5c1730;
bibo:status <http://purl.org/ontology/bibo/status/nonPeerReviewed>,
<http://purl.org/ontology/bibo/status/unpublished>;
dct:creator epid:person/ext-21;
dct:date "2010-11-03";
dct:isPartOf <http://eprints.ecs.soton.ac.uk/id/repository>;
dct:title "Pragmatics of Semantic Technologies in Education: Linked Data"^^xsd:string;
rdf:type bibo:AcademicArticle,
bibo:Article,
ep:ConferenceItemEPrint,
ep:EPrint;
rdfs:seeAlso <http://eprints.ecs.soton.ac.uk/21666/> .

epid:event/ext-c3b9960fab197c45ac27112f4d5c1730
dct:title "SemHE \10: The Second International Workshop on Semantic Web Applications in Higher Education"^^xsd:string;
event:place epid:location/ext-6b0cf8434e087celd8323elal6ffldde;
rdf:type bibo:Conference,
event:Event .

epid:location/ext-6b0cf8434e087celd8323elal6ffldde
rdf:type geo:SpatialThing;
rdfs:label "University of Southampton, UK"^^xsd:string .

epid:person/ext-21
foaf:family_name "Glaser"^^xsd:string;
foaf:givenname "Hugh"^^xsd:string;
foaf:name "Hugh Glaser"^^xsd:string;
foaf:type foaf:Person;
owl:sameAs ecsid:person/21 .
```



Seme4
LINKED DATA SOLUTIONS

Seme4.com

Machine-Processable Metadata

- **Accessible data**
- **Common vocabularies**
- **Relations**
 - Eg dct:creator
- **Instances**
 - Eg epid:person/ext-21

Metadata Out There

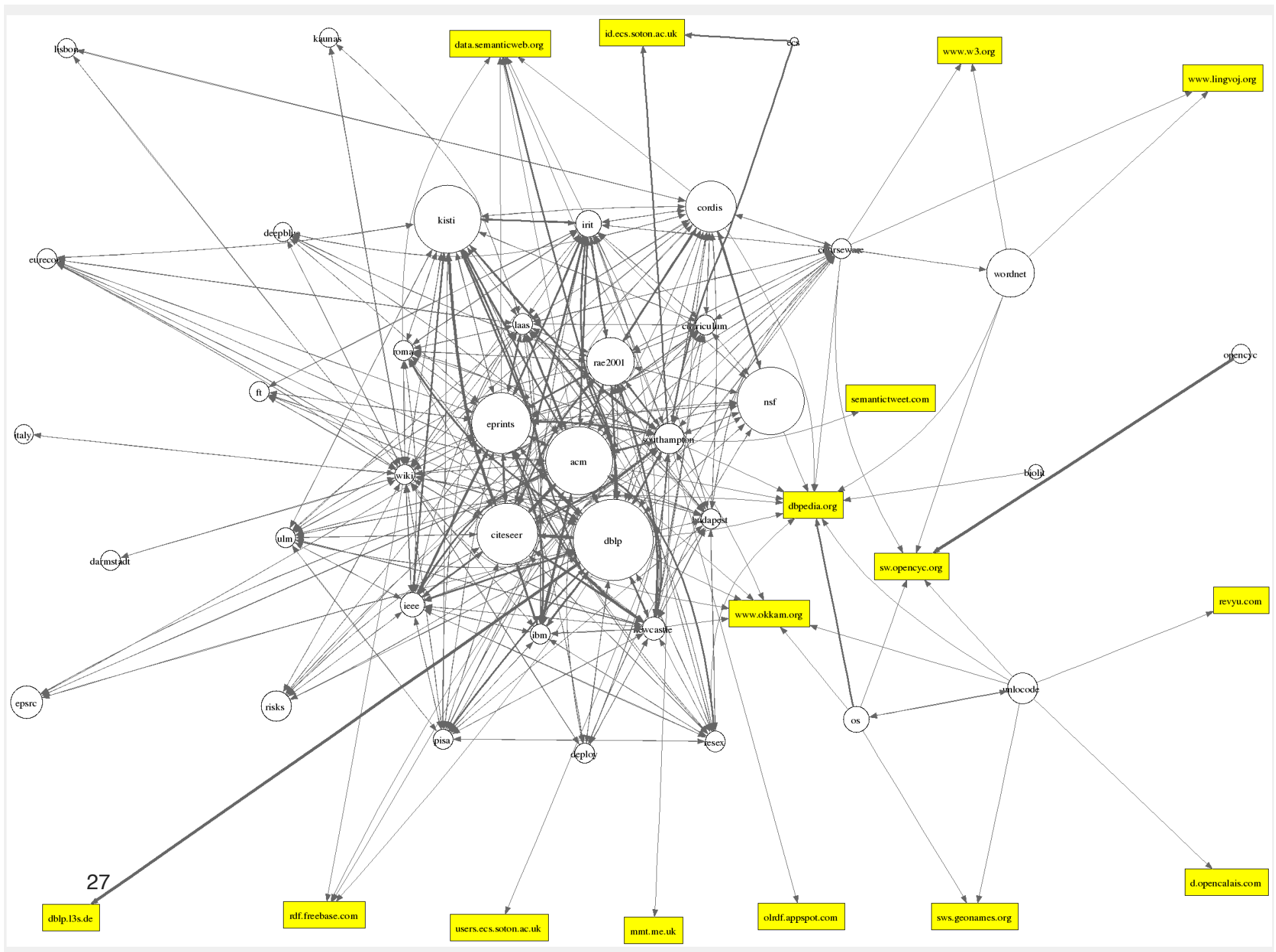
- **Current statistics for this RDF repository (<http://oai.rkbexplorer.com/sparql/>) —**
- **Last data assertion 2010-01-06 21:22:05**
- **Number of triples 24206591**
- **Number of symbols 8512102**
- **Size of RDF dataset 22G**

In the OAI.rkbexplorer.com Repository

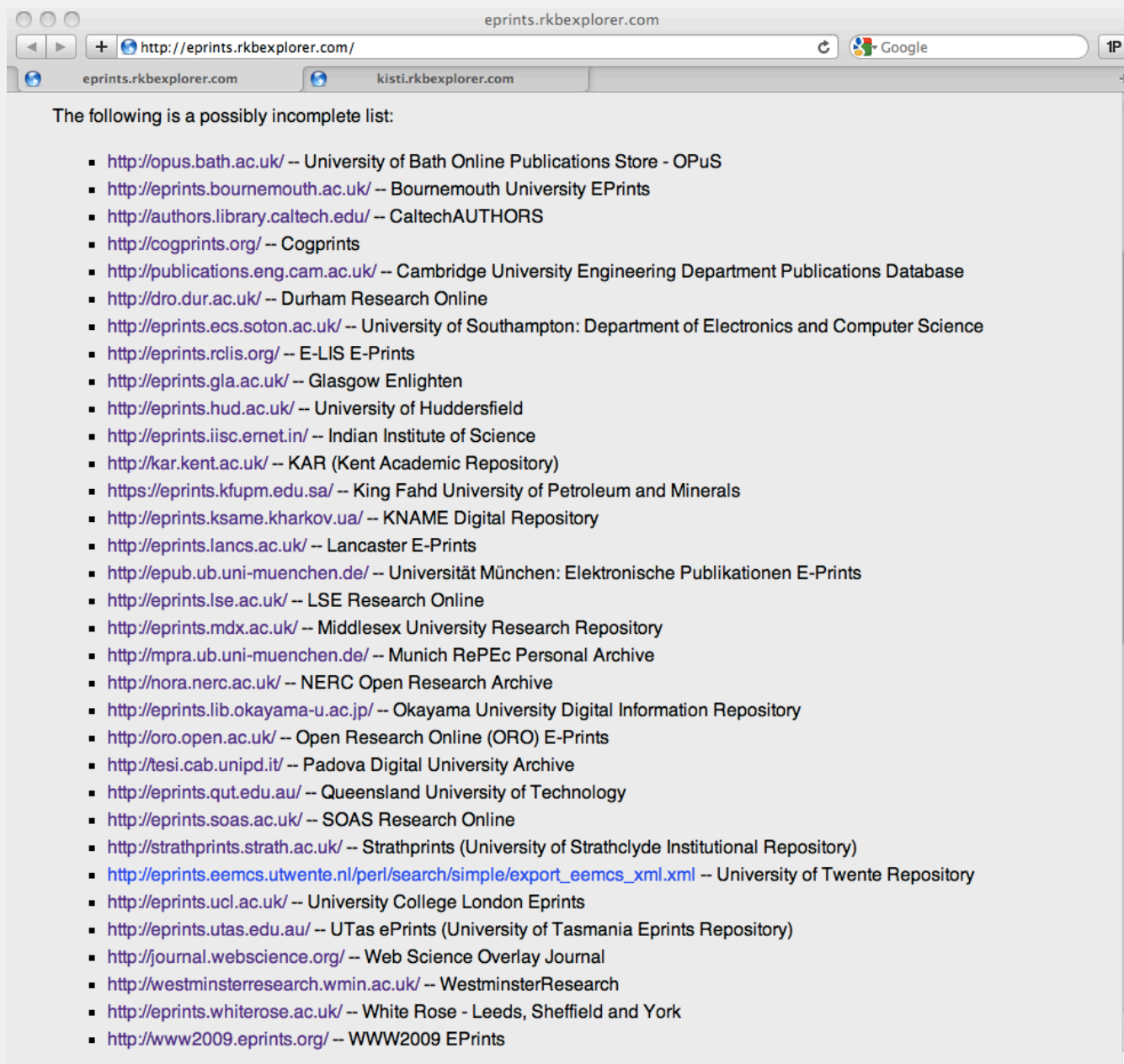
```
Small — ssh — 154x29 — 88
[hg@cohen data]$ l
ar az bg bw ch co cu de edu es fr gh hk id in is jp kz mx net nl org ph pt sa si tw uk ve za
at bd bo by cl com cy dk ee et fx gov hr ie int it kg lk my ng no other pk ro se th ua us ws zw
au be br ca cn cr cz ec eg fi gb gr hu il ir jm kr mil na ni nz pe pl ru sg tr ug uy yu
[hg@cohen data]$ l in
Allama-Iqbal-Library-Digital-Collection
Bioinformation
DSpace-INFILIBNET-Home
DSpace-at-Bangalore-Management-Academy-Home
DSpace-at-Guru-Gobind-Singh-Indraprastha-University-Delhi
DSpace-at-ICFAI-BUSINESS-SCHOOL-IBS-Ahmedabad
DU-Eprint-Archive
Delhi-College-of-Engineering
Digital-Knowledge-Repository-of-Central-Drug-Research-Institute-DKR-CDRI
Dspace-IIA-Indian-Institute-of-Astrophysics
Dyuthi-at-CUSAT
EPrints-IIT-Delhi-Home
ETD-IISc-Electronic-Theses-and-Dissertations-at-Indian-Institute-of-Science
Eprints-MDRF
Eprints-NML
Eprints-SBT-MKU
ISI-Library-Bangalore
Indian-Institute-of-Information-Technology
Indian-Institute-of-Management-Kozhikode
Indian-Institute-of-Science-Bangalore-India
Institutional-repository-at-MDI
Kautilya
Librarians-Digital-Library
[hg@cohen data]$
MedknowEprints
NAL-IR
NISCAIR-ONLINE-PERIODICALS-REPOSITORY-NOPR
National-Center-for-Antarctic-Research-Goa-India
National-Centre-for-Catalysis-Research-IIT-Catalysis-Database
National-Institute-Of-Oceanography-India
National-Institute-of-Immunology-NII-India
National-Institute-of-Technology-Rourkela-India
National-chemical-Laboratory-Pune
OneWorld-South-Asia-Open-Archive-Initiative
Open-Access-Repository-of-Indian-Theses
OpenMED-NIC
Rajiv-Ghandi-Center-For-Biotechnology
Raman-Research-Institute-Digital-Repository
S-V-National-Institute-of-Technology-Repository
Welcome-to-ethesis-nitr-ethesis
commands.sh
ePrints-IIMK-Indian-Institute-of-Management-Kozhikode-Scholarship-Repository
eprints-immr
fetch.log
http-www-freeewebs-com-siddhapapers-20071109114146
last_update
roar_list.csv
```

Somehow Open Data should offer Linkage

- **At present very little linkage between repositories**
- **Our other data stores:**



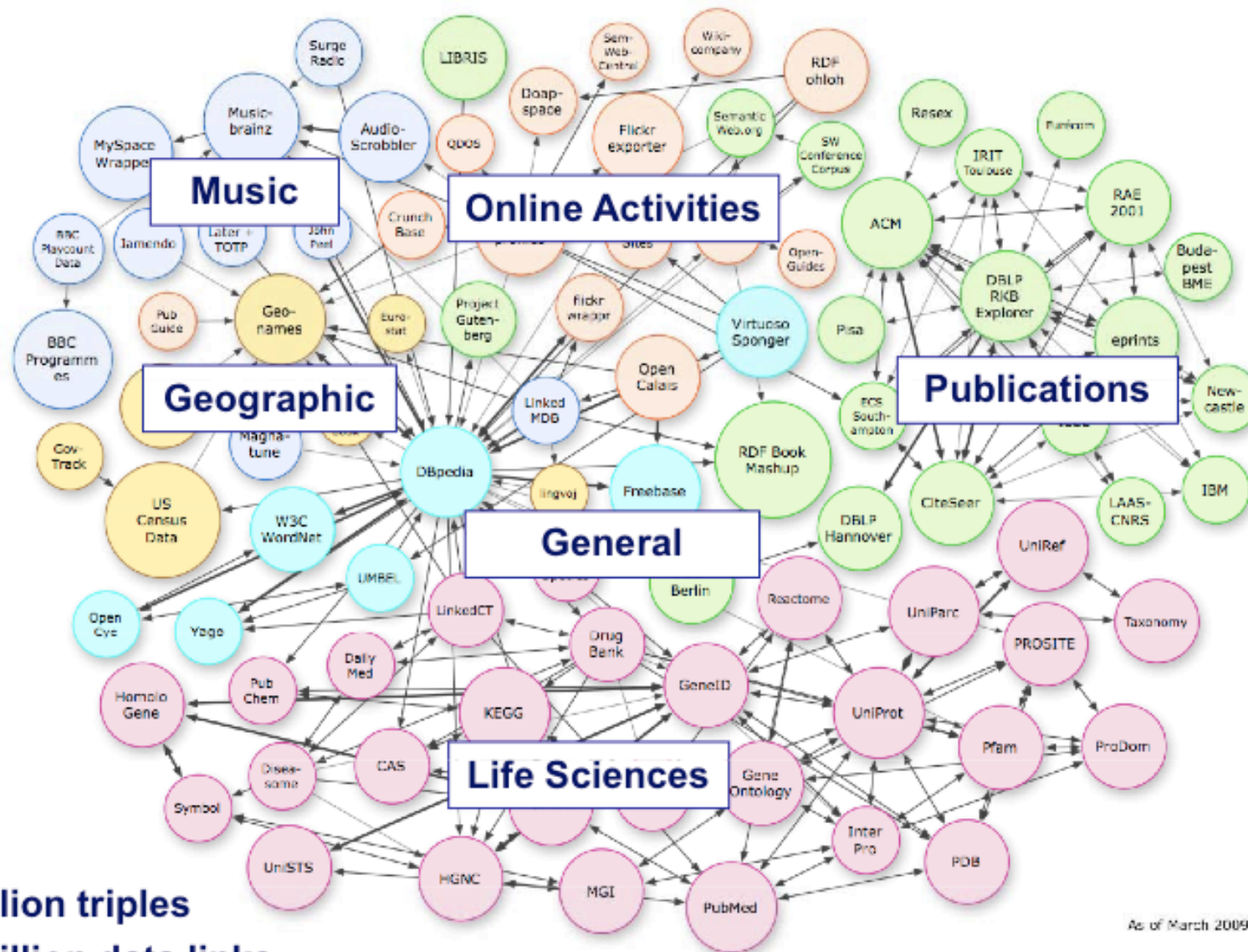
ePrints repositories



The following is a possibly incomplete list:

- <http://opus.bath.ac.uk/> -- University of Bath Online Publications Store - OPuS
- <http://eprints.bournemouth.ac.uk/> -- Bournemouth University EPrints
- <http://authors.library.caltech.edu/> -- CaltechAUTHORS
- <http://cogprints.org/> -- Cogprints
- <http://publications.eng.cam.ac.uk/> -- Cambridge University Engineering Department Publications Database
- <http://dro.dur.ac.uk/> -- Durham Research Online
- <http://eprints.ecs.soton.ac.uk/> -- University of Southampton: Department of Electronics and Computer Science
- <http://eprints.rclis.org/> -- E-LIS E-Prints
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- <http://eprints.hud.ac.uk/> -- University of Huddersfield
- <http://eprints.iisc.ernet.in/> -- Indian Institute of Science
- <http://kar.kent.ac.uk/> -- KAR (Kent Academic Repository)
- <https://eprints.kfupm.edu.sa/> -- King Fahd University of Petroleum and Minerals
- <http://eprints.ksame.kharkov.ua/> -- KNAME Digital Repository
- <http://eprints.lancs.ac.uk/> -- Lancaster E-Prints
- <http://epub.ub.uni-muenchen.de/> -- Universität München: Elektronische Publikationen E-Prints
- <http://eprints.lse.ac.uk/> -- LSE Research Online
- <http://eprints.mdx.ac.uk/> -- Middlesex University Research Repository
- <http://mpira.ub.uni-muenchen.de/> -- Munich RePEc Personal Archive
- <http://nora.nerc.ac.uk/> -- NERC Open Research Archive
- <http://eprints.lib.okayama-u.ac.jp/> -- Okayama University Digital Information Repository
- <http://oro.open.ac.uk/> -- Open Research Online (ORO) E-Prints
- <http://tesi.cab.unipd.it/> -- Padova Digital University Archive
- <http://eprints.qut.edu.au/> -- Queensland University of Technology
- <http://eprints.soas.ac.uk/> -- SOAS Research Online
- <http://strathprints.strath.ac.uk/> -- Strathprints (University of Strathclyde Institutional Repository)
- http://eprints.eemcs.utwente.nl/perl/search/simple/export_eemcs_xml.xml -- University of Twente Repository
- <http://eprints.ucl.ac.uk/> -- University College London Eprints
- <http://eprints.utas.edu.au/> -- UTas ePrints (University of Tasmania Eprints Repository)
- <http://journal.webscience.org/> -- Web Science Overlay Journal
- <http://westminsterresearch.wmin.ac.uk/> -- WestminsterResearch
- <http://eprints.whiterose.ac.uk/> -- White Rose - Leeds, Sheffield and York
- <http://www2009.eprints.org/> -- WWW2009 EPrints

LOD Datasets on the Web: March 2009



4.5 billion triples
180 million data links

As of March 2009

Context: RKB and RKBExplorer

- **RKB (ReSIST Knowledge Base) and RKBExplorer**
- **Knowledge-enabled infrastructure for cooperation in research into resilient systems**
- **Came out of CS AKTiveSpace**
 - (Semantic Web Challenge winner 2003)
- **Reasonably mature system and ongoing development**

RKBExplorer – the ReSIST Project

RKBExplorer » Projects » ReSIST Resilience for Survivability in IST

http://www.rkbexplorer.com/explorer/#display=project-%7Bhttp%3A//wiki.rkbexplorer.com/id/resist%7D

Search... Search

about system requirements
help data sources
contact acknowledgements

Related projects

Details

Title:
Resilience for survivability in IST

Other Names:
ReSIST Resilience for Survivability in IST

Project Overview:
ReSIST is a NoE that addresses the strategic objective "Towards a global dependability and security framework" of the Work Programme, and responds to the stated "need for resilience, self-healing, dynamic content and volatile environments". It will integrate leading researchers active in the multidisciplinary domains of Dependability, Security, and Human Factors, in order that Europe will have a well-focused coherent set of research activities aimed at ensuring that future "ubiquitous computing systems", the immense systems of ever-evolving networks of computers and mobile devices which are needed to support and provide Ambient Intelligence (AmI), have the necessary resilience and survivability, despite any residual development and physical faults, interaction mistakes, or malicious attacks and disruptions. The objectives of the Network are: 1) Integration of teams of researchers so that the fundamental topics

People

- Jean-Claude Laprie
- Aad van Moorsel
- Abdelmajid Khelil
- Achour Mostefaou
- Adnan Noon Mian
- Afraz Jaffri
- Agnan de Bonneval
- Alberto Pasquini
- Alessia Milani

Organisations

- The University of Newcastle upon Tyne
- LAAS-CNRS
- CITY UNIVERSITY LONDON
- Laboratoire d'Analyse et d'Architecture des Systèmes
- The University of Pisa
- Institut Eurecom
- Technische Universität Darmstadt
- UNIVERSITA DEGLI STUDI DI ROMA "LA SAPIENZA" - UNIVERSITY OF ROME "LA SAPIENZA"

Publications

- Malicious- and Accidental-Fault Tolerance in Internet Applications: conceptual model and architecture
- Conceptual Model and Architecture
- Conceptual model and architecture of MAFTIA
- ASSERT Automated proof based system and software engineering for real-time applications
- Malicious- and Accidental-Fault Tolerance in Internet Applications: reference model and use cases
- Revised version in Predictably dependable computing systems

Research Areas

- Testing
- Safety
- Trust
- Human Made Fault
- Symbolic Execution
- Dependability And Security Provision
- Dependability, High Confidence, Survivability
- Development Fault
- Environment

Applet eu.resist.rkb.RKBExplorer2 started

RKBExplorer.com

RKBExplorer » People » Nigel Shadbolt

Search... Search

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help data sources
contact acknowledgements

Related people

Details

Full Name:
[Nigel Shadbolt](#)

Works For:
[University of Southampton](#)

Telephone:
+44 (0)23 8059 7682

Fax:
+44-602-590339

Email Address:
nrs@ecs.soton.ac.uk

Web Address:
<http://www.ecs.soton.ac.uk/people/nrs>

Web Address:
http://en.wikipedia.org/wiki/Nigel_Shadbolt

Description:
Nigel Richard Shadbolt is Professor of Computer Science University of Southampton in southern

People

- [Kieron O'Hara](#)
- [Harith Alani](#)
- [Nicholas Gibbins](#)
- [David De Roure](#)
- [Paul Lewis](#)
- [Paul Smart](#)
- [Terry Elliott](#)
- [Bo Hu](#)
- [Srinandan Dasmahapatra](#)
- [Yannis Kalfoglou](#)
- [Nick Jennings](#)

Organisations

- [University of Southampton](#)
- [Intelligence, Agents and Multimedia](#)
- [Intelligence, Agents, Multimedia Group](#)
- [School of Electronics and Computer Science](#)
- [UNIVERSITY OF NOTTINGHAM](#)

Publications

- [Facilitating Knowledge Management in Pervasive Health Care Systems](#)
- [A Controlled Natural Language Interface for Semantic Media Wiki Using the Rabbit Language](#)
- [A Controlled Natural Language Interface for Semantic Media Wiki Using the Rabbit Language](#)
- [Contextualising Tags in Collaborative Tagging Systems](#)
- [Lifelogging: Privacy and Empowerment with Memories for Life](#)
- [Lifelogging: Privacy and Empowerment with Memories for Life](#)
- [On Measuring Expertise in Collaborative Tagging Systems](#)
- [On Measuring Expertise in Collaborative](#)

Research Areas

- [I.2.6. Learning](#)
- [I.2.1. Applications and Expert Systems](#)
- [I.2.4. Knowledge Representation Formalisms and Methods](#)
- [Computer Science](#)
- [I.2.11. Distributed Artificial Intelligence](#)
- [H.3.4. Systems and Software](#)
- [H.3.5. Online Information Services](#)
- [I.2.0. General](#)
- [I.2.7. Natural Language Processing](#)

Appllet eu.resist.rkb.RKBExplorer2 started

Or a Paper

RKBExplorer » Publications » A Web-Based Resource Model for eScience: Object Reuse & Exchange

http://www.rkbexplorer.com/explorer/#display=publication-%7Bhttp%3A/dblp.rkbexplorer.com/id/journals/corr-abs-0811-05: Google

RKBExplorer » Publications » A Web-Based Resource Model for eScience: Object Reuse & Exchange

Search... Search

about system requirements
help data sources
contact acknowledgements

Related publications

Details

Title:
A Web-Based Resource Model for eScience: Object Reuse & Exchange

Author:
[Herbert Van de Sompel](#)
[Simeon Warner](#)
[Michael Nelson](#)
[Pete Johnston](#)
[Robert Sanderson](#)
[Carl Lagoze](#)

Web Address:
<http://arxiv.org/abs/0811.0573>

Journal:
abs/0811.0573

Volume:
abs/0811.0573

People

Carl Lagoze
Herbert Van de Sompel
Michael Nelson
Pete Johnston
Robert Sanderson
Simeon Warner

Organisations

Cornell University

Publications

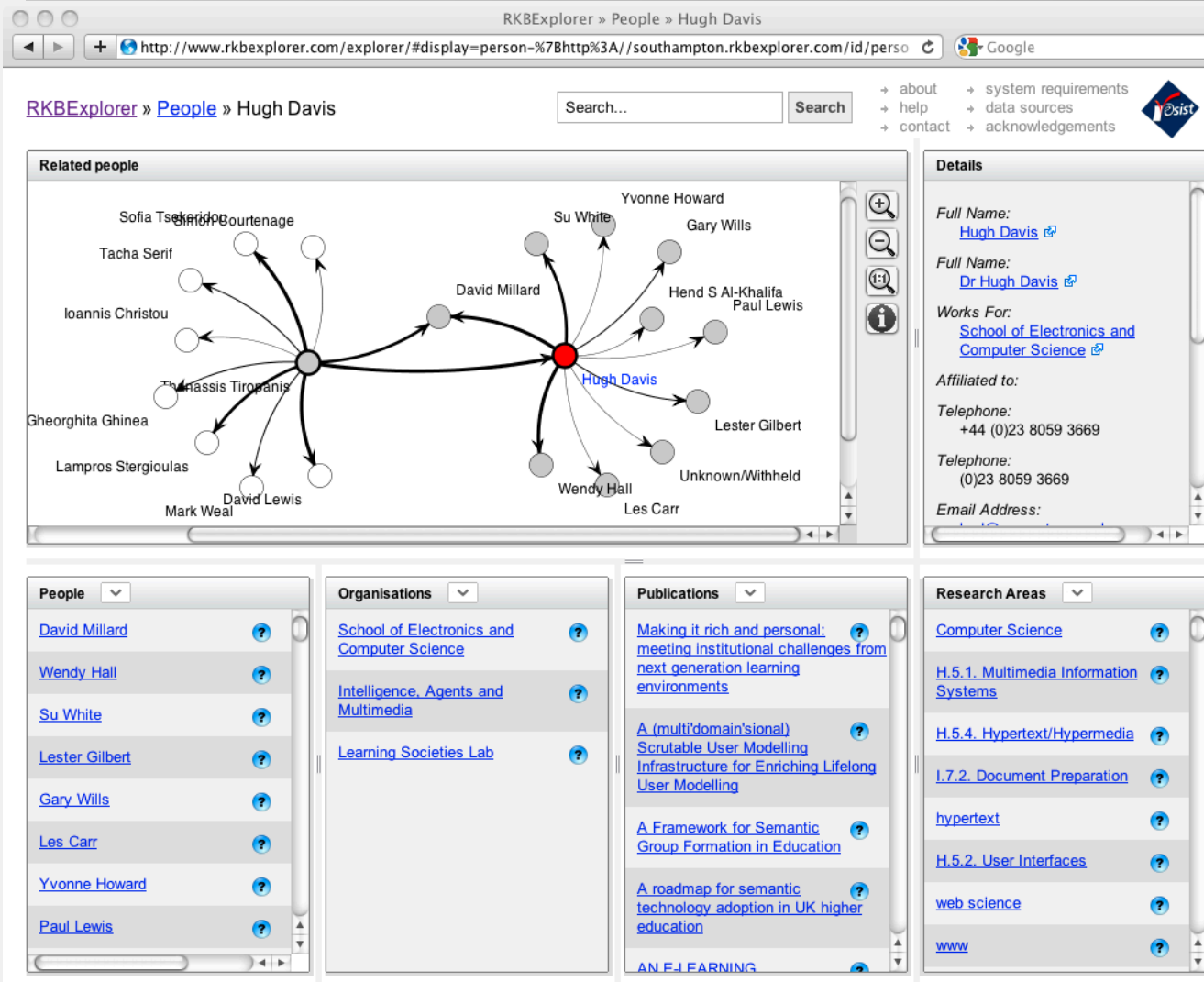
Object Re-Use & Exchange: A Resource-Centric Approach
Pathways: augmenting interoperability across scholarly repositories
A Practical Ontology for the Large-Scale Modeling of Scholarly Artifacts and their Usage
Access Interfaces for Open Archival Information Systems based on the OAI-PMH and the OpenURL Framework for Context-Sensitive Services
An Architecture for the Aggregation and Analysis of Scholarly Usage Data

Research Areas

No results found

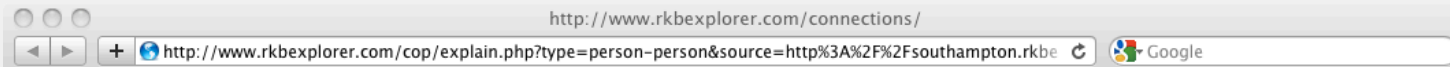
33

Or a Couple of People



And how
they are
linked

And Why they are Linked?



www.rkbexplorer.com

Hugh Davis is connected to **David Millard**

They are linked by 70 relations.

Publications

They have co-authored 64 papers:

- [Solent --- a Platform for Distributed Open Hypermedia Applications](#)
- [Interoperability between Hypermedia Systems: The Standardisation Work of the OHSWG](#)
- [Naming in OHP](#)

(61 more)

Affiliations

They are both affiliated to **School of Electronics and Computer Science**.

Projects

They are both contacts for 4 projects:

- [Multimedia Annotation and Community Folksonomy Building](#)
- [Assessment Delivery Engine for QTIv2 Questions](#)
- [Rendering and response processing services for QTIv2 questions](#)

(1 more)

Organisation

They are both affiliated to: **School of Electronics and Computer Science**.



Seme4.com

One of Many KBs, including other ePrints

acm.rkbexplorer.com
budapest.rkbexplorer.com
citeseer.rkbexplorer.com
cordis.rkbexplorer.com
courseware.rkbexplorer.com
darmstadt.rkbexplorer.com
dblp.rkbexplorer.com
dbpedia.org
deepblue.rkbexplorer.com
deploy.rkbexplorer.com
epsrc.rkbexplorer.com
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laas.rkbexplorer.com
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nsf.rkbexplorer.com
pisa.rkbexplorer.com
rae2001.rkbexplorer.com
resex.rkbexplorer.com
roma.rkbexplorer.com
southampton.rkbexplorer.com
ulm.rkbexplorer.com
unlocode.rkbexplorer.com
wiki.rkbexplorer.com
xxx.yyy.zzz

Range from a few 100 to more than 10,000,000 “facts”



The Need to Expose More

- **Drill down from the papers to the data**
- **And the experimental method**
- **Climategate**

BBC News - 'Show Your Working': What 'ClimateGate' means

http://news.bbc.co.uk/2/hi/8388485.stm

News WRPMO Single (30) And same as sameas Furniture iPhone ECS UoS DH ReSIST MacOS X Football

climategate site:bbc.co.uk ... Climategate: the final nail i... Climatic Research Unit em... BBC News - 'Show Your W...

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Page last updated at 14:56 GMT, Tuesday, 1 December 2009

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'Show Your Working': What 'ClimateGate' means

VIEWPOINT
Mike Hulme and Jerome Ravetz

The "ClimateGate" affair - the publication of e-mails and documents hacked or leaked from one of the world's leading climate research institutions - is being intensely debated on the web. But what does it imply for climate science? Here, Mike Hulme and Jerome Ravetz say it shows that we need a more concerted effort to explain and engage the public in understanding the processes and practices of science and scientists.

As the repercussions of [ClimateGate](#) reverberate around the virtual community of global citizens, we believe it is both important and urgent to reflect on what this moment is telling us about the practice of science in the 21st Century.

In particular, what is it telling us about the social status and perceived authority of scientific claims about climate change?

We argue that the evolving

“ Practising scientists know that they do not simply follow a rulebook to do their science, otherwise it could be done by a robot ”

THE GREEN ROOM
A weekly series of thought-provoking pieces on environmental topics

Decision time
It is time for nations to face two decades of dead-end whale conservation

Your comments

my experiment RDF

[Submit Feedback/Bug Report](#)

RDF API

myExperiment's RDF API provides myExperiment data in RDF/XML format. Please see the [guide](#) explaining how to request RDF for myExperiment. There are also [some examples of various myExperiment entities represented in RDF/XML](#). Alternatively if you can download a dump of [all myExperiment's public RDF data](#).

Some of myExperiment's data is private and is protected using HTTP authentication. If you request a URI that is private then you will need to provide your myExperiment username and password to prove you have permission to retrieve this RDF. To save time you can "log in" using the login form to the right. This will save you having to provide your credentials for each URI. It will also allow you to make requests for RDF for all entities of a certain type that you have permission to see.

Login

Username:

Password:

Login

Ontology

The structure of myExperiment RDF is defined by a [ontology modules](#) that can be assembled to build the complete [myExperiment Ontology](#). This is a set of modules that borrows classes/properties from FOAF, SIOC, Dublin Core, Creative Commons and OAI-ORE, that can be assembled to build a comprehensive specification for the myExperiment data model. [An autogenerated specification document](#) for the ontology is also [available](#). A [ChangeLog](#) is also maintained for the ontology.

SPARQL Endpoint

All myExperiment's public RDF data can be queried using the query language SPARQL at [myExperiment's SPARQL Endpoint](#). There is also [a guide of how to use the endpoint and write SPARQL queries](#) with real executable examples.

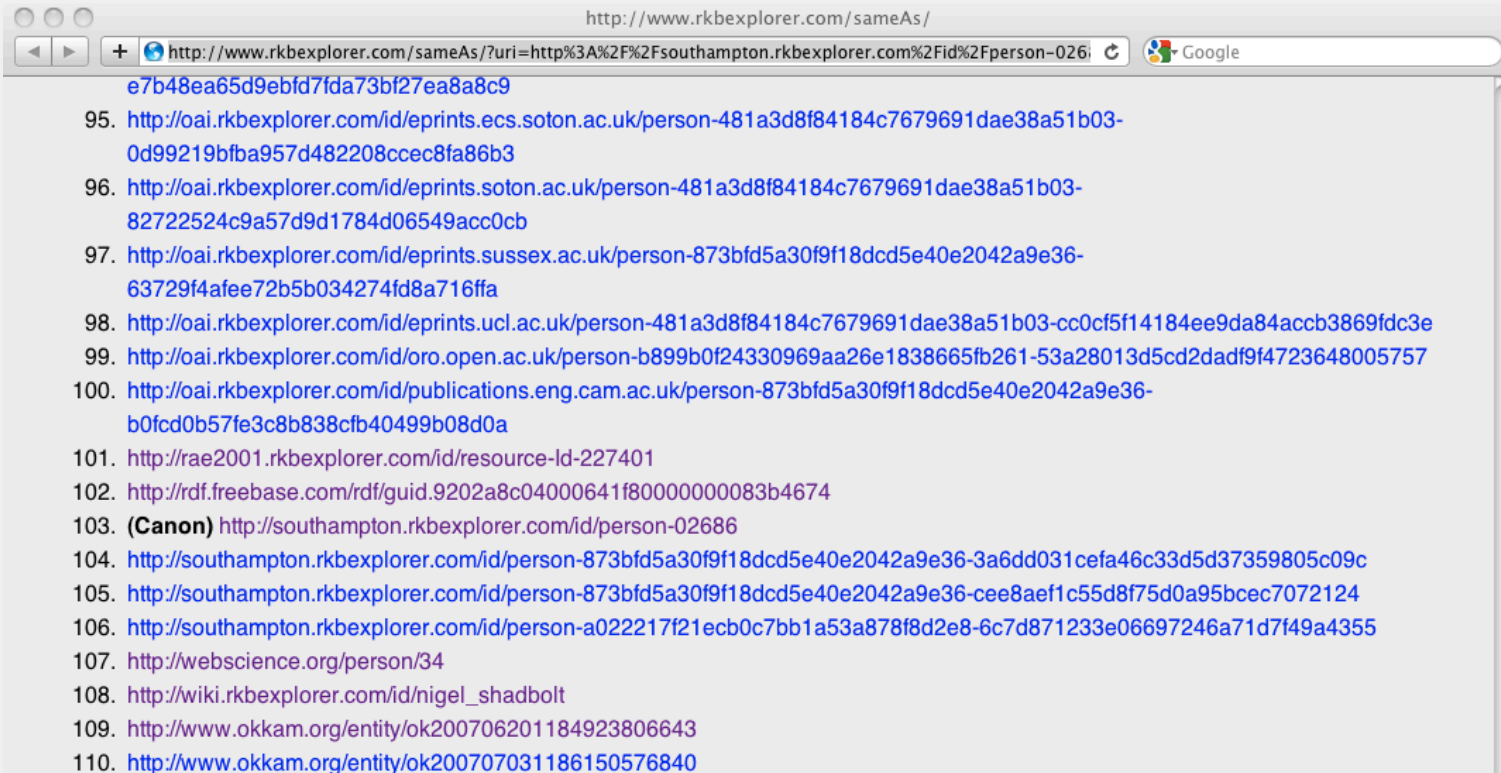
OAI-ORE Export

myExperiment Packs and Experiments can be exported as OAI-ORE Resource Maps. Like RDF export private entities can be accessed using HTTP authentication. A guide for how to export OAI-ORE Resource Maps can be found [here](#).

Co-Reference

- **Repositories have people, publications, etc. from other institutions who also have records there and elsewhere**
- **And vice versa**
- **Co-Reference is a Big Problem**
 - Everything is a URI (not title, name, number...)
 - Identifying multiple URIs for one resource
 - Rejecting incorrectly conflated resources
 - Publishing
 - Using
- **Coldstart**
 - A serious problem
 - Nothing is linked to anything
 - Not even (reliably) within most repositories

Who is Nigel Shadbolt?



The screenshot shows a web browser window with the address bar displaying `http://www.rkbexplorer.com/sameAs/?uri=http%3A%2F%2Fsouthampton.rkbexplorer.com%2Fid%2Fperson-026e7b48ea65d9ebfd7fda73bf27ea8a8c9`. The page content is a list of 110 URIs, numbered 95 to 110. The URIs are as follows:

- 95. <http://oai.rkbexplorer.com/id/eprints.ecs.soton.ac.uk/person-481a3d8f84184c7679691dae38a51b03-0d99219bfba957d482208ccec8fa86b3>
- 96. <http://oai.rkbexplorer.com/id/eprints.soton.ac.uk/person-481a3d8f84184c7679691dae38a51b03-82722524c9a57d9d1784d06549acc0cb>
- 97. <http://oai.rkbexplorer.com/id/eprints.sussex.ac.uk/person-873bfd5a30f9f18dcd5e40e2042a9e36-63729f4afee72b5b034274fd8a716ffa>
- 98. <http://oai.rkbexplorer.com/id/eprints.ucl.ac.uk/person-481a3d8f84184c7679691dae38a51b03-cc0cf5f14184ee9da84accb3869fdc3e>
- 99. <http://oai.rkbexplorer.com/id/oro.open.ac.uk/person-b899b0f24330969aa26e1838665fb261-53a28013d5cd2dadf9f4723648005757>
- 100. <http://oai.rkbexplorer.com/id/publications.eng.cam.ac.uk/person-873bfd5a30f9f18dcd5e40e2042a9e36-b0fcd0b57fe3c8b838cfb40499b08d0a>
- 101. <http://rae2001.rkbexplorer.com/id/resource-id-227401>
- 102. <http://rdf.freebase.com/rdf/guid.9202a8c04000641f80000000083b4674>
- 103. (Canon) <http://southampton.rkbexplorer.com/id/person-02686>
- 104. <http://southampton.rkbexplorer.com/id/person-873bfd5a30f9f18dcd5e40e2042a9e36-3a6dd031cefa46c33d5d37359805c09c>
- 105. <http://southampton.rkbexplorer.com/id/person-873bfd5a30f9f18dcd5e40e2042a9e36-cee8aef1c55d8f75d0a95bcec7072124>
- 106. <http://southampton.rkbexplorer.com/id/person-a022217f21ecb0c7bb1a53a878f8d2e8-6c7d871233e06697246a71d7f49a4355>
- 107. <http://webscience.org/person/34>
- 108. http://wiki.rkbexplorer.com/id/nigel_shadbolt
- 109. <http://www.okkam.org/entity/ok200706201184923806643>
- 110. <http://www.okkam.org/entity/ok200707031186150576840>

See this bundle as [RDF XML](#) or [N3](#)

Client applications can retrieve different data formats by specifying an HTTP Accept header when requesting

`http://www.rkbexplorer.com/sameAs/?uri=...`

Use `application/rdf+xml` for a bundle representation, or `text/n3` for owl:sameAs relationships.

Alternatively, you can append `&format=rdf` or `&format=n3` to the request.

For example:

<http://www.rkbexplorer.com/sameAs/?format=rdf&uri=http://sws.geonames.org/2647554/>

<http://www.rkbexplorer.com/sameAs/?format=n3&uri=http://sws.geonames.org/2647554/>

Co-Reference Service (CRS)

- **CRS Subsystem**
 - Find co-references
 - Store them
 - Publish them
 - Essentially:
 - $URI_i \rightarrow \{ URI_1, \dots, URI_i, \dots, URI_n \}$
 - Recommend a “Canon”
- **Published by the Data Publisher**
 - And possibly others
- **Middleware aggregates co-references from recognised CRSes**

CRS continued

- **CRS Policies are defined by context**
 - Often one per Triplestore
 - Can be many per Triplestore for different purposes
 - May not be associated with a particular Triplestore
- **Maintenance**
 - Provenance
 - Rollback
- **Can be used to infer owl:sameAs**
- **Eg OAI CRS has**
 - 7531045 different URIs
 - in
 - 2544955 bundles

Co-Reference Closure

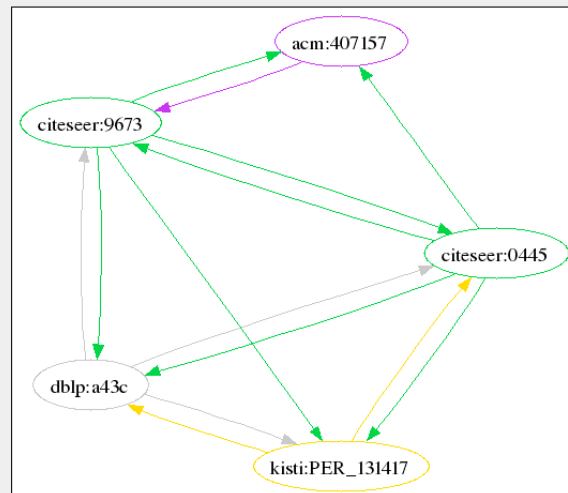
Complete Co-Reference Information

This service computes the equivalence class within the known URIs for a specified URI, by consulting all relevant CRS knowledge bases.

Equivalent URIs...

1. **(Canon)** <http://acm.rkbexplorer.com/id/person-407157>
2. <http://citeseer.rkbexplorer.com/id/resource-CSP179673>
3. <http://citeseer.rkbexplorer.com/id/resource-CSP180445>
4. <http://dblp.rkbexplorer.com/id/people-1ec5a600299222dd6374695ef5214f05-90d423eb148125a6e5c573dc5a15a43c>
5. http://kisti.rkbexplorer.com/id/PER_0000000000000131417

The following diagram shows the interconnectivity between the CRS knowledge bases which maintain the context-dependent representation of coreference for each of the RKBExplorer domains.



Seungwoo Lee

Showing information queried from all repositories ...

Showing information queried from all repositories ...

Subject	Property	Object/Value	Source
Seungwoo Lee	akt:full-name	Seungwoo Lee [Explore]	acm-periodicals.rdf >>
Seungwoo Lee	akt:full-name	Seungwoo Lee [Explore]	acm-proceedings.rdf >>
Seungwoo Lee	akt:full-name	Seungwoo Lee [Explore]	dblp-publications-2001.rdf >>
Seungwoo Lee	akt:has-affiliation	Electrical and Computer Engineering Division, Pohang University of Science & Technology (POSTECH), Pohang, South Korea.gblee@postech.ac.kr	acm-periodicals.rdf >>
Seungwoo Lee	akt:has-affiliation	POSTECH, Pohang, Korea	acm-proceedings.rdf >>
Seungwoo Lee	kisti:engNameOfPerson	Seungwoo Lee [Explore]	datatypeproperties.ttl >>
Seungwoo Lee	rdf:type	akt:Affiliated-Person	acm-periodicals.rdf >>
Seungwoo Lee	rdf:type	akt:Affiliated-Person	acm-proceedings.rdf >>
Seungwoo Lee	rdf:type	Generic Agent	acm-periodicals.rdf >>
Seungwoo Lee	rdf:type	Generic Agent	acm-proceedings.rdf >>
Seungwoo Lee	rdf:type	Generic Agent	dblp-publications-2001.rdf >>
Seungwoo Lee	rdf:type	akt:Person	acm-periodicals.rdf >>
Seungwoo Lee	rdf:type	akt:Person	acm-proceedings.rdf >>
Seungwoo Lee	rdf:type	akt:Person	dblp-publications-2001.rdf >>
Seungwoo Lee	rdf:type	PER_char(20)^^^	datatypeproperties.ttl >>
Seungwoo Lee	rdf:type	PER_char(20)^^^	objectproperties.ttl >>
Seungwoo Lee	rdf:type	PER_char(20)^^^	resources.ttl >>

Subject	Property	Object	Source
Automatic acquisition of named entity tagged corpus from world wide web	akt:has-author	Seungwoo Lee	acm-proceedings.rdf >>
A Corpus-Based Learning Method of Compound Noun Indexing Rules for Korean	akt:has-author	Seungwoo Lee	acm-periodicals.rdf >>
SiteQ: Engineering High Performance QA System Using Lexico-Semantic Pattern Matching and Shallow NLP.	akt:has-author	Seungwoo Lee	dblp-publications-2001.rdf >>
A Corpus-Based Learning Method of Compound Noun			dblp-publications-2001.rdf >>



Distributed System – discoverable with attribution

Source of <http://southampton.rkbexplorer.com/data/person-00021>

```
<owl:Ontology rdf:about="">
  <dc:creator>ReSIST Project</dc:creator>
  <dcterms:created rdf:datatype="&xsd;dateTime">2010-10-27T10:49:59</dcterms:created>
  <dc:source rdf:resource="http://southampton.rkbexplorer.com/id/person-00021"/>
  <coref:coreferenceData rdf:resource="http://southampton.rkbexplorer.com/crs/person-00021" />
</owl:Ontology>
<rdf:Description rdf:about="http://southampton.rkbexplorer.com/id/person-00021">
  <rdf:type rdf:resource="&akt;Person"/>
  <rdf:type rdf:resource="&akt;Affiliated-Person"/>
  <rdf:type rdf:resource="&akt;Academic"/>
  <owl:sameAs rdf:resource="http://id.ecs.soton.ac.uk/person/21"/>
  <akt:full-name>Hugh Glaser</akt:full-name>
  <akt:given-name>Hugh</akt:given-name>
  <akt:family-name>Glaser</akt:family-name>
```

A General Facility - Finding Co-reference

The screenshot shows a web browser window with the address bar displaying `http://sameas.org/html?q=Les+Carr&x=24&y=22`. The page title is "Les Carr « owl:sameAs". The main heading is "<sameAs> interlinking the Web of Data". Below this, a text block explains: "The Web of Data has many equivalent URIs. This service helps you to find co-references between different data sets. Enter a known URI, or use Sindice to search first." There are two search input fields: one labeled "<sameAs>" containing the URI `http://southampton.rkbexplorer.com/`, and another labeled "Sindice" containing the name "Les Carr". Below the search results, a section titled "Search results from Sindice, with co-references applied..." shows a list of URIs under the heading "Sindice 'Les Carr'". The list includes three URIs from southampton.rkbexplorer.com and one from kisti.rkbexplorer.com, with a "Show 118 more" link. Below this, another section titled "Sindice 'Les Carr'" shows a single URI from dblp.l3s.de. At the bottom, it states "Currently serving 23268924 URIs in 8454882 bundles!" and includes links for "about" and "contact", a Creative Commons BY-NC-SA license logo, and the page number "46".

Les Carr « owl:sameAs

http://sameas.org/html?q=Les+Carr&x=24&y=22

Google

iGoogle Canada dwb IPK iPhone RKB Freqs iPhone Single (51) And ECS Benny Uni DH UoS ReSIST MacOS X Football

Les Carr « owl:sameAs

<sameAs>

interlinking the Web of Data

The Web of Data has many equivalent URIs.
This service helps you to find co-references
between different data sets.
Enter a known URI, or use Sindice to search first.

<sameAs>

Sindice

Search results from [Sindice](#), with co-references applied...

Sindice "Les Carr"

<sameAs> {

1. <http://southampton.rkbexplorer.com/id/person-00060>
2. <http://southampton.rkbexplorer.com/id/person-98e0f2e8dd84b079a54318...f484814122>
3. <http://southampton.rkbexplorer.com/id/person-a635f51b18c81bf1df7dab...84425e0250>

Show 118 more

122. http://kisti.rkbexplorer.com/id/PER_000000000000000081787

rdf+xml · n3 · json · text

Sindice "Les Carr"

<sameAs> {

1. http://dblp.l3s.de/d2r/resource/authors/Les_Carr

rdf+xml · n3 · json · text

Currently serving 23268924 URIs in 8454882 bundles!

about · contact

ZERO

46

http://dbpedia.org/resource/London « owl:sameAs

http://sameas.org/html?uri=http%3A%2F%2Fdbpedia.org%2Fresource%2FLondon

News WRP MO ENT sameas iPhone Single (26) And ECS UoS DH ReSIST MacOS X Football RKB iPhone App dwb Benny Uni >>

http://dbpedia.org/resource/Lon... http://webscience.org/person/2... http://dbpedia.org/resource/14-...

The Web of Data has many equivalent URIs.
This service helps you to find co-references
between different data sets.
Enter a known URI, or use Sindice to search first.

<sameAs>

Equivalent URIs for http://dbpedia.org/resource/London –

<sameAs> {

1. <http://dbpedia.org/resource/London>
2. <http://dbpedia.org/resource/Leondeon>
3. <http://dbpedia.org/resource/Lundúnir>
4. [http://dbpedia.org/resource/London_\(UK\)](http://dbpedia.org/resource/London_(UK))
5. [http://dbpedia.org/resource/London_\(Britain\)](http://dbpedia.org/resource/London_(Britain))
6. [http://dbpedia.org/resource/London_\(England\)](http://dbpedia.org/resource/London_(England))
7. [http://dbpedia.org/resource/London_\(Great_Britain\)](http://dbpedia.org/resource/London_(Great_Britain))
8. [http://dbpedia.org/resource/London_\(United_Kingdom\)](http://dbpedia.org/resource/London_(United_Kingdom))
9. <http://www.okkam.org/ens/id1d7d3fb0-44f8-41a1-8866-89c1458a1c66>
10. <http://www.okkam.org/entity/oke0ab0619-e28a-438d-b53b-cdd5c8157f30>
11. <http://os.rkbexplorer.com/id/osr7000000000041428>
12. <http://data.ordnancesurvey.co.uk/id/7000000000041428>
13. <http://linkededgeodata.org/triify/node/107775#id>
14. <http://mpii.de/yago/resource/London>
15. <http://rdf.freebase.com/ns/guid.9202a8c04000641f80000000000242b2>
16. <http://statistics.data.gov.uk/id/eer/07>
17. <http://statistics.data.gov.uk/id/eer?name=London>
18. <http://sw.opencyc.org/concept/Mx4rvVjWPJwpEbGdrcN5Y29ycA>
19. <http://sw.opencyc.org/2008/06/10/concept/en/CityOfLondonEngland>
20. <http://sw.opencyc.org/2009/04/07/concept/en/CityOfLondonEngland>
21. <http://sw.opencyc.org/2008/06/10/concept/Mx4rvVjWPJwpEbGdrcN5Y29ycA>
22. <http://sw.opencyc.org/2009/04/07/concept/Mx4rvVjWPJwpEbGdrcN5Y29ycA>
23. <http://sws.geonames.org/2643743/>
24. <http://telegraphis.net/data/capitals/GB/London#London>
25. <http://umbel.org/umbel/ne/wikipedia/London>
26. <http://www.ontologyportal.org/SUMO.owl#LondonUnitedKingdom>

rdf+xml · n3 · json · text · show fewer items

Other Subsystems

- **All fit into a Linked data framework**

This is a page that gives a simple demonstration showing papers which have been deemed related through textual analysis by IAI Saarbrücken. Up to the top 20 are listed for each paper, when they meet a simple thresholding:

1 – very strong – 0.9 – strongly – 0.7 – related – 0.6 – ignored – 0

The 1980 paper **Exception Handling and Software-Fault Tolerance** [\[browse\]](#)

is very strongly related to

- [\[browse\]](#) 2003 "Automatic detection and masking of non-atomic exception handling" [\[PDF\]](#)
- [\[browse\]](#) 1989 "Formal Verification of Programs with Exceptions"
- [\[browse\]](#) 1983 "Programming Reliable and Robust Software in ADA"

is strongly related to

- [\[browse\]](#) 1998 "Improving software robustness with dependability cases" [\[PDF\]](#)
- [\[browse\]](#) 1999 "Wrapping windows NT software for robustness" [\[PDF\]](#)
- [\[browse\]](#) 1981 "Exception Handling and Error Recovery Techniques in Modular Systems - An Application to the Isaure System"
- [\[browse\]](#) 2003 "Deadlock resolution via exceptions for dependable Java applications" [\[PDF\]](#)
- [\[browse\]](#) 2002 "Robust software - no more excuses" [\[PDF\]](#)

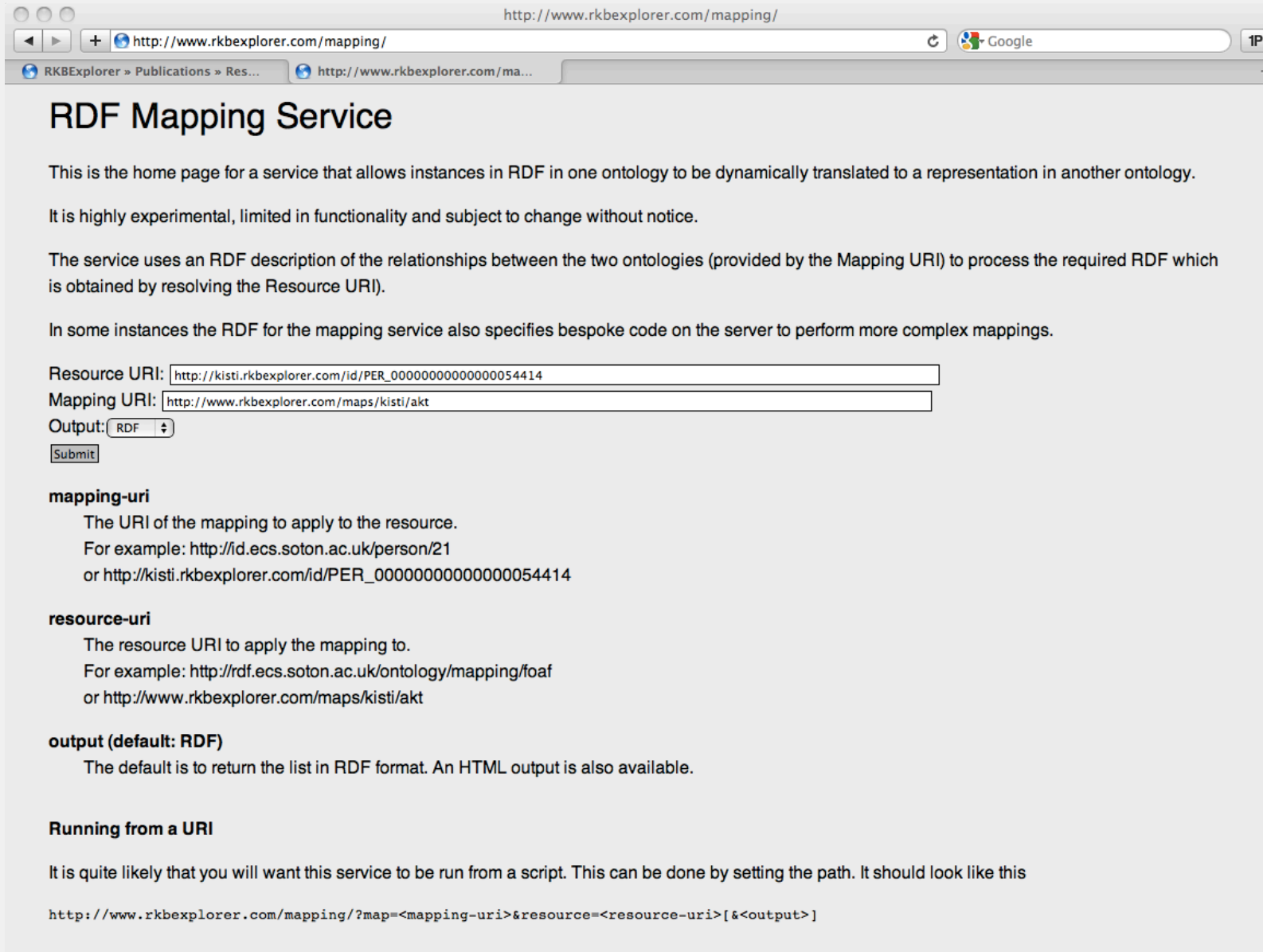
is related to

- [\[browse\]](#) 1995 "Fault tolerance in concurrent object-oriented software through coordinated error recovery" [\[PDF\]](#)
- [\[browse\]](#) 2004 "Implementing simple replication protocols using CORBA portable interceptors and Java serialization" [\[PDF\]](#)
- [\[browse\]](#) 1984 "Fault Tolerance Using Communicating Sequential Processes"
- [\[browse\]](#) 2001 "Middleware support for voting and data fusion" [\[PDF\]](#)

Dealing With Different Ontologies

- **The RKBExplorer application uses particular ontologies**
 - Mostly AKT Reference Ontology
 - Some KBs will use different ontologies
 - Eg kisti.rkbexplorer.com
 - Uses KISTI Research Ontology
- **One solution**
 - Represent the ontology mapping in RDF (as far as possible)
 - Resolve the URI through a mapping service to get RDF in the required ontology

On-The-Fly Translation



The screenshot shows a web browser window with the address bar displaying `http://www.rkbexplorer.com/mapping/`. The page title is "RKBExplorer » Publications » Res...". The main heading is "RDF Mapping Service". Below the heading, there is a paragraph explaining the service's purpose: "This is the home page for a service that allows instances in RDF in one ontology to be dynamically translated to a representation in another ontology. It is highly experimental, limited in functionality and subject to change without notice. The service uses an RDF description of the relationships between the two ontologies (provided by the Mapping URI) to process the required RDF which is obtained by resolving the Resource URI). In some instances the RDF for the mapping service also specifies bespoke code on the server to perform more complex mappings."

Below the text, there are two input fields: "Resource URI:" with the value `http://kisti.rkbexplorer.com/id/PER_0000000000000054414` and "Mapping URI:" with the value `http://www.rkbexplorer.com/maps/kisti/akt`. There is also an "Output:" dropdown menu set to "RDF" and a "Submit" button.

Below the form, there are three sections: "mapping-uri" with an explanation and examples, "resource-uri" with an explanation and examples, and "output (default: RDF)" with an explanation. At the bottom, there is a section "Running from a URI" with a paragraph and a URL template.

RDF Mapping Service

This is the home page for a service that allows instances in RDF in one ontology to be dynamically translated to a representation in another ontology. It is highly experimental, limited in functionality and subject to change without notice. The service uses an RDF description of the relationships between the two ontologies (provided by the Mapping URI) to process the required RDF which is obtained by resolving the Resource URI).

In some instances the RDF for the mapping service also specifies bespoke code on the server to perform more complex mappings.

Resource URI:

Mapping URI:

Output:

mapping-uri

The URI of the mapping to apply to the resource.
For example: `http://id.ecs.soton.ac.uk/person/21`
or `http://kisti.rkbexplorer.com/id/PER_0000000000000054414`

resource-uri

The resource URI to apply the mapping to.
For example: `http://rdf.ecs.soton.ac.uk/ontology/mapping/foaf`
or `http://www.rkbexplorer.com/maps/kisti/akt`

output (default: RDF)

The default is to return the list in RDF format. An HTML output is also available.

Running from a URI

It is quite likely that you will want this service to be run from a script. This can be done by setting the path. It should look like this

`http://www.rkbexplorer.com/mapping/?map=<mapping-uri>&resource=<resource-uri> [&<output>]`

User Interaction

- **Semantic MediaWiki**
- **Custom form interfaces**
- **Google Maps**
- **Raw Knowledge Browser**

- **RKBExplorer**
- **Why do you think that? information**

**RESILIENCE FOR SURVIVABILITY IN IST
KNOWLEDGE BASE**[Wiki](#)[RKB Browser](#)[Query RKB](#)[Course Metadata](#)

ReSIST / Welcome

Welcome to the ReSIST Wiki, which is the internal communication mechanism for the EU funded [ReSIST "Network of Excellence"](#).

Note that virtually all pages are private, and viewable only to ReSIST members who have [logged in](#).

Most content can be found by firstly browsing the main [ReSIST page](#), which details the different research areas in which activities are ongoing as part of the project.

If you have any questions or problems, please check that they have not previously been answered in the [frequently asked questions](#), before contacting [Ian Millard](#) or [Hugh Glaser](#) at Southampton.

Quick Links

[\[edit\]](#)

- [Frequently asked questions](#)
- [ReSIST project page](#)
- [Recent changes to the wiki](#)
- [Upload new file / View uploaded files](#)
- [ReSIST members / photos / locations](#)
- [Calendar of Events](#)
- [Browse](#), [query](#), or find out more about the [Resilience Knowledge Base](#)

Editing tools

- » [View Page](#)
- » [Discuss this page](#)
- » [Edit this page](#)
- » [History](#)
- » [Protect](#)
- » [Delete](#)
- » [Move](#)
- » [Watch this page](#)

Personal tools

- » [hugh glaser](#)
- » [My talk](#)
- » [Preferences](#)
- » [My watchlist](#)
- » [My contributions](#)
- » [Log out](#)

Search

Toolbox

- » [What links here](#)
- » [Related changes](#)
- » [Upload file](#)
- » [Special pages](#)



RESILIENCE FOR SURVIVABILITY IN IST
KNOWLEDGE BASE

Wiki

RKB Browser

Query RKB

Course Metadata

ReSIST / Courses / Editing 'Advanced seminars on Distributed Systems'

Step 1 of 4: Information regarding the organisation of the course

(For questions, problems or feedback filling out this form, please [email us](#) )

Name of the course

Advanced seminars on Distributed Systems

Taught at

(CTRL+Click to select multiple values)

Universita degli studi di Roma, La Sapienza
Universitat ULM
Universite De Toulouse 1
Universite de Rennes 1
University of Naples
University of Toulouse III

[\[Add new item\]](#)

Currently being taught

<Select Currently being taught>

Description

The course focuses on recent advances on distributed systems. A set of topic is selected and studied through the help of original papers and, practically, most known distributed system platforms are selected and analyzed.

Language(s) of the course

(CTRL+Click to select multiple values)

English
Esperanto
Estonian
Finnish
French
Gaelic

Select Author(s)

(CTRL+Click to select multiple values)

Roberto Baldoni
Roberto Beraldi
Roberto Bonato
Robin Bloomfield
Ruta Marcinkeviciene
Sadie Creese

[\[Add new item\]](#)

ReSIST / Resilience-Explicit Computing Mechanisms

Name of the resilience mechanism (A title to identify your mechanism)	N-Version Programming/1/1
Submitted by (The person(s) identified here shall be the point of contact for any queries relating to data entered into this form about this mechanism)	Zoe Andrews
Author of mechanism (Click on the "add new item" link to search for, and add, authors of this mechanism. These people should have a good understanding of the mechanism and may be the same as those identified in the previous question)	Algirdas Avizienis
Associated projects (Click on the "add new item" link to search for, and add, projects that are associated with this mechanism. Possible associations include projects that: funded research on the mechanism; address similar aims; or use similar techniques)	<None>
Mechanism Objectives (Summary of the purpose of your mechanism in a sentence or two)	To utilise design diversity and voting in order to tolerate software faults
Detailed Description (Either enter a detailed description of the mechanism here, should be detailed enough for the reader to be able to re-create the mechanism, or reference a paper with such text in below)	<p>The information here applies to the specific variant of the mechanism NVP/1/1, described in "Definition and Analysis of Hardware- and Software-Fault Tolerant Architectures". The specific variant considered, NVP/1/1, has three diverse implementations of a software module.</p> <p>For a more general overview of the mechanism please see "The N-Version Approach to Fault-Tolerant Software".</p>
Detailed Description Publication (If applicable (see above), click on the "add	Definition and Analysis of Hardware- and Software-Fault-Tolerant Architectures

Editing "N-Version Programming/1/1"

Step 5 of 7: Resilience metadata - how the mechanism helps a system's resilience

(For questions, problems or feedback filling out this form, please [email us](#) )

Failure Modes

(Select the ways in which your mechanism can fail to function as intended. To help you to decide what the appropriate failure modes are you could treat your mechanism as a black box and think about the kinds of failures you expect to observe from it. The terms in this list are taken from the ReSIST ontology on security and dependability.)

(CTRL+Click to select multiple values)

Consistent Failures
Content And Timing Failure
Content Failure
Early Timing Failure
Erratic Failure
False Alarm

Threats Addressed


(Select the threats to resilience that your mechanism aims to address, ie the faults it aims to remove, the errors it aims to compensate for and the failures it aims to prevent. The terms in this list are taken from the ReSIST ontology on security and dependability.)



(CTRL+Click to select multiple values)

Accidental Fault
Budget Failure
Catastrophic Error
Catastrophic Failure
Commission Fault
Complete Development Failure

Resilience Metadata

In this question you are asked to think about the effect your mechanism has on the resilience of a system. If you were to compare your mechanism to a different mechanism addressing a similar aim, what data would you use to choose which was fit for a specific purpose? This question allows you to define such metrics and associate a value with them for your mechanism. New resilience metadata metrics and values can be added to this list by clicking on the "add new item" link. Existing metadata instances can be deleted or edited by clicking the cross or the pencil next to them respectively. Note that when you edit some metadata a new version is saved as well as the old one, which can then be deleted.)

Time-dependent probability $(P(t))$ of undetected failure 
POFOD (Undetected) * application software's execution 
rate * t Probability

Time-dependent probability $(P(t))$ of failure POFOD * 
application software's execution rate * t Probability 

Time-dependent probability $(P(t))$ of detected failure 


Update in Action

The image displays two side-by-side screenshots of the RKBExplorer web application, illustrating an update in the network graph for Hugh Glaser.

Left Screenshot (Initial State):

- Related people:** A network graph with Hugh Glaser at the center (red node). Connected nodes include Ian Millard, J M Wild, David De Roure, Nicholas Gibbins, Pieter Hartel, Afraz Jaffri, Stephen Harris, and Benedicto Rodriguez.
- People list:** D Till, Mike Reeve, Tom Anderson, A Salhi, S Cox, Algirdas Avizienis, Chidung Lac, Les Carr, Srinandan Dasmahapatra.
- Organisations list:** University of Southampton, Declarative Systems and Software Engineering, Dependable Systems and Software Engineering Research Group, School of Electronics and Computer Science.
- Publications list:** RKBExplorer, RKBExplorer.com: A Semantic Web Appli, RKBExplorer.com: A Driven Infrastructure Providers, URI Disambiguation i of Linked Data, Untangling Domain C Ontology Design Pat, Whose "Fault" Is Thi Domain Concepts in Patterns.

Right Screenshot (Updated State):

- Related people:** The network graph is updated. Hugh Glaser is still the center. The connections now include J M Wild, Nicholas Gibbins, Benedicto Rodriguez, Ian Millard, Nigel Shadbolt, Afraz Jaffri, David De Roure, Pieter Hartel, Harith Alani, Stephen Harris, and a new node, Les Carr.
- Details:** A profile for Hugh Glaser is shown, including a photo, full name (Hugh Glaser), works for (University of Southampton), and telephone (44 (0)23 8050 2670).
- People list:** Same as the left screenshot.
- Organisations list:** Same as the left screenshot.
- Publications list:** A Knowledge Base for Dependability and Security Research, Knowledge-Enabled Research Support: RKBExplorer.com, RKBExplorer: Repositories, Linked Data and Research Support, An Infrastructure for Managing URI Synonymy on the Semantic Web (Poster), An Integrated Knowledge Base for European Dependability Research, Diversity.
- Research Areas:** Static Analysis, Computer Science, D.3.2. Language Classifications, D.0. GENERAL, D.1.1. Applicative Programming, E.1. DATA STRUCTURES, K.3.2. Computer and Information Science Education, C.1.3. Other Architecture Styles, D.1.0. General.

Before and after inserting this paper in the Southampton ePrints repository

and RKB has noticed


Note the position of Les Carr in Hugh's related People

RKBExplorer » People » Hugh Glaser

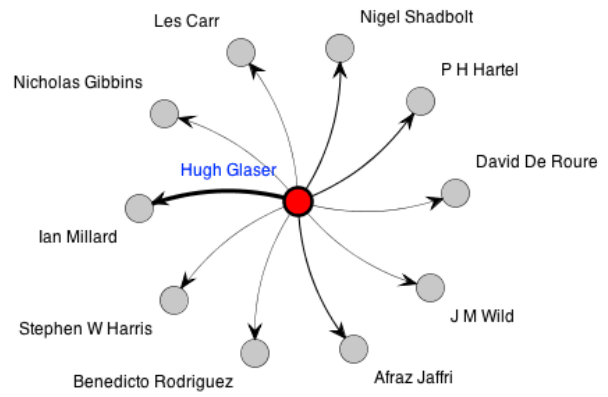
<http://www.rkbexplorer.com/explorer/#display=person-%7Bhttp%3A//southampton.rkbexplorer.com/id/person-0>
Google

RKBExplorer » People » Hugh Glaser

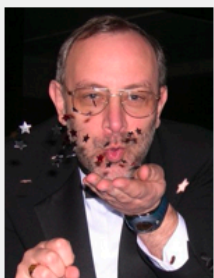
- about
- help
- contact
- system requirements
- data sources
- acknowledgements



Related people



Details



Full Name:
[Hugh Glaser](#)

Full Name:
[H Glaser](#)

Works For:
[School of Electronics and Computer Science](#)

People

- [Ian Millard](#)
- [P H Hartel](#)
- [Afraz Jaffri](#)
- [Nigel Shadbolt](#)
- [Nicholas Gibbins](#)
- [Benedicto Rodriguez](#)
- [Stephen W Harris](#)
- [David De Roure](#)
- [J M Wild](#)
- [Les Carr](#)
- [monica.schraefel](#)

Organisations

- [University of Southampton](#)
- [Declarative Systems and Software Engineering](#)
- [Intelligence, Agents, Multimedia Group](#)
- [UNIVERSITY OF SOUTHAMPTON](#)

Publications

- [Distributed Authority](#)
- [Domain-Specific Backlinking Services in the Web of Data \(Extended Version\)](#)
- [Domain-Specific Backlinking Services in the Web of Data](#)
- [From Information to Sense-Making: Fetching and Querying Semantic Repositories](#)
- [Linked Data: Making things more accessible](#)
- [Repositories and Linked Data](#)
- [SPARQL Query Rewriting for Implementing Data Integration over Linked Data](#)

Research Areas

- [Static Analysis](#)
- [Computer Science](#)
- [Parallel Computing](#)
- [D.3.2. Language Classifications](#)
- [D.0. GENERAL](#)
- [D.1.1. Applicative Programming](#)
- [E.1. DATA STRUCTURES](#)
- [K.3.2. Computer and Information Science Education](#)
- [Unknown/Withheld](#)

RKBExplorer » People » Hugh Glaser

<http://www.rkbexplorer.com/explorer/#display=person-%7Bhttp%3A//southampton.rkbexplorer.com/id/person-0>
Google

Search...
Search

about
system requirements
help
data sources
contact
acknowledgements

Related people

Details

Full Name: [Hugh Glaser](#)

Full Name: [H Glaser](#)

Works For: [School of Electronics and Computer Science](#)

People

- [Ian Millard](#)
- [P H Hartel](#)
- [Afraz Jaffri](#)
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- [D.3.2. Language Classifications](#)
- [D.0. GENERAL](#)
- [D.1.1. Applicative Programming](#)
- [E.1. DATA STRUCTURES](#)
- [K.3.2. Computer and Information Science Education](#)
- [C.1.3. Other Architecture Styles](#)

RKBExplorer » People » Hugh Glaser

http://www.rkbexplorer.com/explorer/#display=person-%7Bhttp%3A//southampton.rkbexplorer.com/id/person-0

3 matches Prag Done

about system requirements
help data sources
contact acknowledgements

RKBExplorer » People » Hugh Glaser

Search... Search

Related people

Details

Full Name: [Hugh Glaser](#)

Full Name: [H Glaser](#)

Works For: [School of Electronics and Computer Science](#)

People

- [Ian Millard](#)
- [P H Hartel](#)
- [Afraz Jaffri](#)
- [Nigel Shadbolt](#)
- [Nicholas Gibbins](#)
- [Benedicto Rodriguez](#)
- [Stephen W Harris](#)
- [David De Roure](#)
- [J M Wild](#)
- [Les Carr](#)

Organisations

- [University of Southampton](#)
- [Declarative Systems and Software Engineering](#)
- [Intelligence, Agents, Multimedia Group](#)

Publications

- [Pragmatics of Semantic Technologies in Education: Linked Data](#)
- [Knowledge-Enabled Research Support: RKBExplorer.com](#)
- [Managing Co-reference on the Semantic Web](#)
- [Diversity](#)
- [RKBExplorer](#)
- [Whose "Fault" Is This? Untangling Domain Concepts in an Ontology of Resilient Computing](#)
- [RKB Explorer: Application and Infrastructure](#)

Research Areas

- [Static Analysis](#)
- [Computer Science](#)
- [Parallel Computing](#)
- [D.3.2. Language Classifications](#)
- [D.0. GENERAL](#)
- [D.1.1. Applicative Programming](#)
- [E.1. DATA STRUCTURES](#)
- [K.3.2. Computer and Information Science Education](#)
- [C.1.3. Other Architecture](#)

edshare

RKBExplorer » Publications » Research in IAM - MSc Briefings

Search... Search

→ about → system requirements
→ help → data sources
→ contact → acknowledgements

Related publications

Details

Title:
Research in IAM - MSc Briefings

Authors:
[Thanassis Tiropanis](#)
[Leslie Carr](#)
[Alex Rogers](#)

Abstract:
This share contains a set of slides intended to help Web Technology MSc students become acquainted with the research in IAM and so to choose a topic for their summer projects and dissertations.

Web Address:
<http://www.edshare.soton.ac.uk/38>

Raw Linked Data:

People

- [Alex Rogers](#)
- [Leslie Carr](#)
- [Thanassis Tiropanis](#)

Organisations

- [School of Electronics and Computer Science](#)

Publications

- [3rd ACM International Conference on Digital Interactive Media in Entertainment and Arts - DIMEA 2008 - Proceedings](#)
- [A \(multi'domain'sional\) Scrutable User Modelling Infrastructure for Enriching Lifelong User Modelling](#)
- [A roadmap for semantic technology adoption in UK higher education](#)
- [A schema-based P2P network to enable publish-subscribe for multimedia content in open hypermedia systems.](#)
- [A service engineering approach to inter-domain TMN system development](#)

Projects

- [BASE2](#)

Applet eu.resist.rkb.RKBExplorer2 started

Our Application Domain: Supporting resilient computing

- People, Publication, Projects, Research Areas
- Resilience-related topics
- Resilience-Explicit Computing
- Educational Resources

- In the future
 - Automating discovery of issues and solutions
 - Design time
 - Run time

Finding mechanisms that are appropriate for Hardware and Aerospace

```
SELECT DISTINCT ?mechanismURI ?mechanismName ?metadataName ?metadataValue WHERE {  
  
  ?mechanismURI rdf:type resex:Resilience-Mechanism .  
  
  ?mechanismURI resex:applies-to-technology akt:Hardware-Platform .  
  
  ?mechanismURI resex:has-application-domain acm:J.2.0 .  
  
  ?mechanismURI rdfs:label ?mechanismName .  
  
}
```

Result	Binding	Value
1	?mechanismURI	http://resex.rkbexplorer.com/id/resilience-mechanism-267972cd
	?mechanismName	N-Self-Checking Programming/1/1
2	?mechanismURI	http://resex.rkbexplorer.com/id/resilience-mechanism-e679bd05
	?mechanismName	N-Version Programming/1/1
3	?mechanismURI	http://resex.rkbexplorer.com/id/resilience-mechanism-7425f52f
	?mechanismName	Recovery Blocks/1/1

Inspecting metadata, number of variants

```
SELECT DISTINCT ?mechanismURI ?mechanismName ?metadataName ?metadataValue WHERE {
```

```
?mechanismURI rdf:type resex:Resilience-Mechanism .
```

```
?mechanismURI resex:applies-to-technology akt:Hardware-Platform .
```

```
?mechanismURI resex:has-application-domain acm:J.2.0 .
```

```
?mechanismURI rdfs:label ?mechanismName .
```

```
?mechanismURI resex:has-resilience-metadata ?metadata .
```

```
?metadata resex:metadata-type id:resilience-metadata-type-231c8583
```

```
?metadata resex:metadata-type ?mt . ?mt rdfs:label ?metadataName .
```

```
?metadata resex:has-value ?metadataValue
```

```
}
```

Result	Binding	Value
1	?mechanismURI	http://resex.rkbexplorer.com/id/resilience-mechanism-7425f52f
	?mechanismName	Recovery Blocks/1/1
	?metadataName	Number of variants
	?metadataValue	2
2	?mechanismURI	http://resex.rkbexplorer.com/id/resilience-mechanism-e679bd05
	?mechanismName	N-Version Programming/1/1
	?metadataName	Number of variants
	?metadataValue	3
3	?mechanismURI	http://resex.rkbexplorer.com/id/resilience-mechanism-267972cd
	?mechanismName	N-Self-Checking Programming/1/1
	?metadataName	Number of variants
	?metadataValue	4

Inspecting metadata, average cost of implementing fault tolerant system - vs- cost of implementing non fault tolerant system

```
SELECT DISTINCT ?mechanismURI ?mechanismName ?metadataName ?metadataValue WHERE {
```

```
  ?mechanismURI rdf:type resex:Resilience-Mechanism .
```

```
  —?mechanismURI resex:applies-to-technology akt:Hardware-Platform .
```

```
  ?mechanismURI resex:has-application-domain acm:J.2.0 .
```

```
  ?mechanismURI rdfs:label ?mechanismName .
```

```
  ?mechanismURI resex:has-resilience-metadata ?metadata .
```

```
    ?metadata resex:metadata-type id:resilience-metadata-type-de1eddf9 .
```

```
    ?metadata resex:metadata-type ?mt . ?mt rdfs:label ?metadataName .
```

```
    ?metadata resex:has-value ?metadataValue
```

```
}
```

Result	Binding	Value
1	?mechanismURI	http://resex.rkbexplorer.com/id/resilience-mechanism-e679bd05
	?mechanismName	N-Version Programming/1/1
	?metadataName	Av CFT/CNFT
	?metadataValue	2.25
2	?mechanismURI	http://resex.rkbexplorer.com/id/resilience-mechanism-267972cd
	?mechanismName	N-Self-Checking Programming/1/1
	?metadataName	Av CFT/CNFT
	?metadataValue	3.01
3	?mechanismURI	http://resex.rkbexplorer.com/id/resilience-mechanism-7425f52f
	?mechanismName	Recovery Blocks/1/1
	?metadataName	Av CFT/CNFT
	?metadataValue	1.75

Comparison of the operational overheads in determining a fault has occurred

```
SELECT DISTINCT ?mechanismURI ?mechanismName ?metadataName ?metadataValue WHERE {
```

```
  ?mechanismURI rdf:type resex:Resilience-Mechanism .
```

```
  ?mechanismURI resex:applies-to-technology akt:Hardware-Platform .
```

```
  ?mechanismURI resex:has-application-domain acm:J.2.0 .
```

```
  ?mechanismURI rdfs:label ?mechanismName .
```

```
  ?mechanismURI resex:has-resilience-metadata ?metadata .
```

```
    ?metadata resex:metadata-type id:resilience-metadata-type-3443934c .
```

```
    ?metadata resex:metadata-type ?mt . ?mt rdfs:label ?metadataName .
```

```
    ?metadata resex:has-value ?metadataValue
```

```
}
```

Result	Binding	Value
1	?mechanismURI	http://resex.rkbexplorer.com/id/resilience-mechanism-7425f52f
	?mechanismName	Recovery Blocks/1/1
	?metadataName	Errors op time overheads
	?metadataValue	One variant and acceptance test execution
2	?mechanismURI	http://resex.rkbexplorer.com/id/resilience-mechanism-267972cd
	?mechanismName	N-Self-Checking Programming/1/1
	?metadataName	Errors op time overheads
	?metadataValue	Possible result switching
3	?mechanismURI	http://resex.rkbexplorer.com/id/resilience-mechanism-e679bd05
	?mechanismName	N-Version Programming/1/1
	?metadataName	Errors op time overheads
	?metadataValue	Usually negligible


Open System

- **RKBExplorer is only one interface**
 - And not a required part
- **Services:**
 - Details for a paper (the right hand pane in RKBExplorer):
 - <http://www.rkbexplorer.com/detail/?uri=http://southampton.rkbexplorer.com/id/eprints-12614>
 - Network of people for a publication (lower pane):
 - <http://www.rkbexplorer.com/network/?uri=http://southampton.rkbexplorer.com/id/eprints-12614&type=publication-person>
 - ...
- **Services**
 - <http://www.rkbexplorer.com/services/>
- **Other Interfaces (using the services)**
 - Personal Web pages
 - iPhone
 - iGoogle Gadget

http://www.rkbexplorer.com/services/

News WRPMO Single (24) And same as sameas Furniture iPhone ECS UoS DH ReSIST MacOS X Football RKB ENT iPhone App

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www.rkbexplorer.com

[contact](#)

This page gives convenient access to various useful links and demonstrations associated with RKBExplorer. It is primarily for the use of project members and collaborators, and not intended as a general entry point for other people. It exposes many of the services of the RKB system in RESTful-style manners. One day I will find the time to make a better page, with documentation.

If you are interested in something here and want to explore using it, please contact [Hugh Glaser](#) or [Ian Millard](#).

RKB Explorer application
[ReSIST project](#), [Jean-Claude Laprie](#), [ALRL Paper](#)

iGoogle Gadgets of the RKB Panels
[\[Main Page\]](#)

Complete Co-Reference Information
[\[Main Page\]](#),
 or try: [Nigel Shadbolt](#), [Hugh Glaser](#), [Brian Randell](#), [Jean-Claude Laprie](#), [Seungwoo Lee](#)

Ontology Mapping
[\[Main Page\]](#),
 or try: [KISTI -> AKT \(RDF, html\)](#);

Networks (Communities of Practice)
[\[Find the Network of a URI\]](#),
 or try: [Hugh Glaser](#), [The Semantic Web Revisited](#), [Tim Berners-Lee](#)

Detail Information
[\[Find Information about a URI\]](#),
 or try: [Hugh Glaser](#), [The Semantic Web Revisited](#), [Tim Berners-Lee](#)

Why? - Why are two Things Related?
[\[Main Page\]](#),

⏪ ⏩ +  http://www.google.com/ig?refresh=1

📖

🔍

iPhone ▾

Single (50) ▾

And ▾

ECS ▾

UoS ▾

DH ▾

ReSIST ▾

MacOS X ▾

Football ▾

RKB ▾

iPhone App ▾

dwb ▾

Benny Uni ▾

Air ▾

Canada ▾

P ▾

SWC ▾

GPS ▾

IPK ▾

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RKBGadget » People
RKBGadget » Project
Google Translate

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Updates
Friends

Chat
Search, add, or invite

●

Hugh Glaser

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[Sign out of chat.](#)

●

Christopher Gutte

new [splashurl.net](#) f

●

Valanto Kousetti

●

Andrew Landells

●

Joyce Lewis

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Detect langu ▾ >> English ▾ Translate

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RKBGadget » People

Berners-Lee

Search Reset

Found 3 results for "Berners-Lee"
[M Berners-Lee](#) [Mary Lee Berners-Lee](#) [Lee](#) [Tim Berners-Lee](#)

Tim Berners-Lee

Full Name:
[Tim Berners-Lee](#)
Email Address:
[timbl@w3.org](#)
Web Address:
[http://en.wikipedia.org/wiki/Tim_Berners-Lee](#)

My Gadgets

Gadget
[dictionary.xml](#)

Inlined Cached
☐ ☒

RKBGadget » Project

Search Reset

KNOWLEDGE WEB
Title:
Realizing the semantic web
Other Names:
KNOWLEDGE WEB
Project Overview:
The current World Wide Web (WWW) is, by its function, the syntactic web where structure of the content has been presented while the content itself is inaccessible to computers. The next generation of the Web (the Semantic Web) aims to alleviate such problem and provide specific solutions targeted the

BBC News | News Front Page | World Edition

[+ Afghan poll media blackout urged](#)

[+ US Colombia deal 'not a threat'](#)

[+ Sony cuts price of PS3 consoles](#)

[+ Honduras expels Argentine envoys](#)

[+ US journalist Robert Novak dies](#)

[+ Turnaround 'will not be simple'](#)


[+ Russia detains ship 'hijackers'](#)

[+ New Israeli settlements 'on hold'](#)

[+ Jackson to be buried on birthday](#)

Weather

Southampton, England

 13°C

Current: Clear
Wind: SE at 3 km/h
Humidity: 94%

Tue

Wed


Thu

Fri

 21° | 13°

 24° | 16°

 20° | 11°

 18° | 9°

Search YouTube

YouTube

Best Silverlight Apps

Zingals uses Silverlight apps to enhance user experience. READ
Ads by Google

⏮ ⏭

[Confucius Quotes](#)



Gmail

Loading "http://www.google.com/ig?refresh=1", completed 20 of 22 items



MyExperiment

Search...



Location of Project Members



Details

Names:

MyExperiment

Starts:

01/03/2007

Ends:

31/03/2009

Web Address:

<http://www.myexperiment.org/>

Description:

The myExperiment Virtual Research Environment enables you and your research

Project Members

[Carole Goble](#) ?

[Darius Michaelides](#) ?

[David De Roure](#) ?

[Frederique VanTill](#) ?

Participating Organisations

[University of Southampton](#) ?

Related JISC Projects

[Meeting Memory Technology Informing Collaboration](#) ?

[myExperiment Repository Enhancement](#) ?

[Collaborative Orthopaedic Research Environment](#) ?

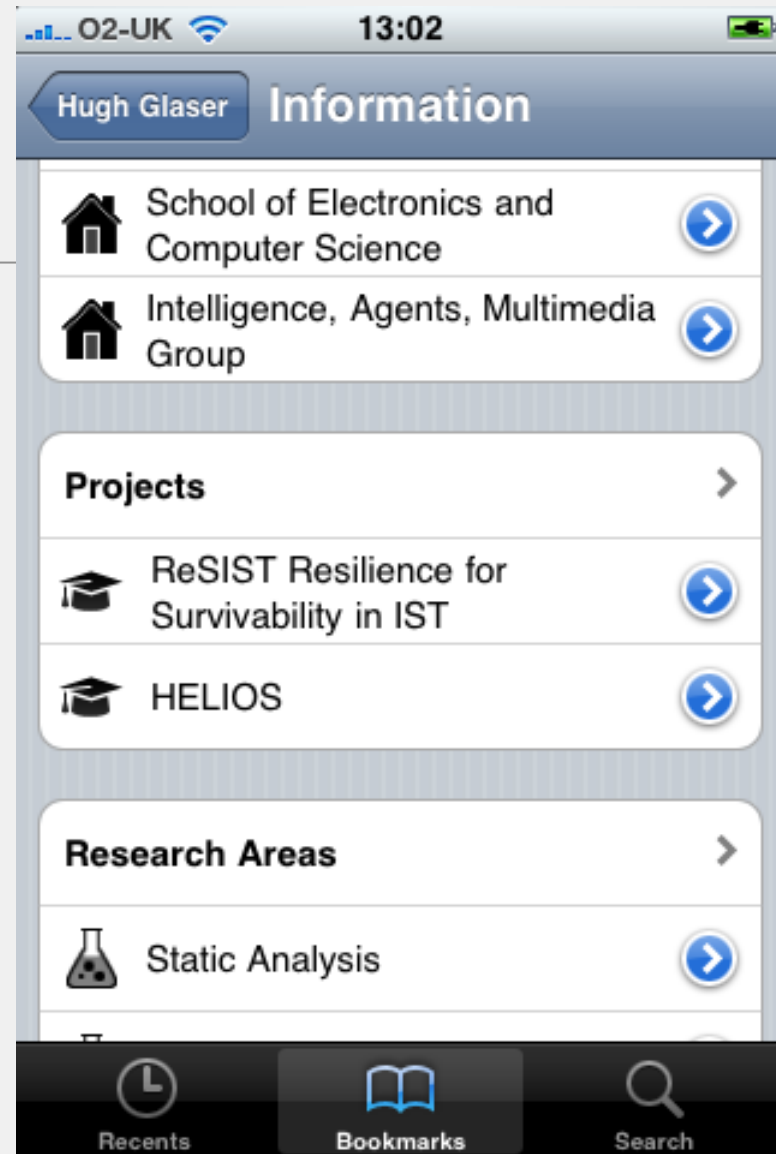
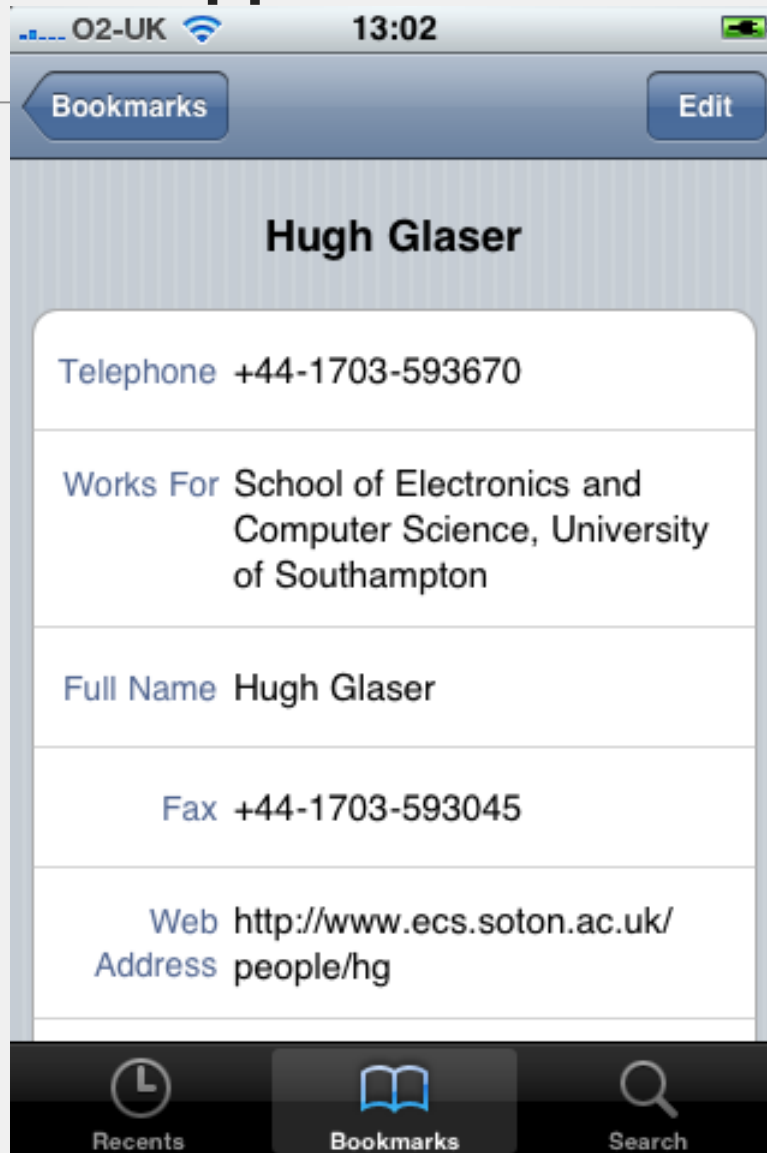
[Internet-Based Behavioural Research](#) ?

[Virtual Research Integration Collaboration](#) ?

[Building Research and Innovation Networks](#) ?

Publications

iPhone App



Semantic Web is not “All or Nothing”

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Search Enter keywords here

University of Southampton > ECS > People > Hugh Glaser

Hugh Glaser

- [Contact](#)
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Search People

Enter a name here

Search

Hugh Glaser
School of Electronics and Computer
Science
University of Southampton
Southampton
SO17 1BJ
United Kingdom



Hugh Glaser

Position: Visiting academic staff in
Intelligence, Agents, Multimedia Group
Fax: +44 (0)23 8059 3045
Email: hg@ecs.soton.ac.uk
URI: <http://id.ecs.soton.ac.uk/person/21>
[[browse](#)]

Interests: genetic algorithms, ontology
maintenance, semantic grid, semantic
squirrels, semantic web, semantic wiki,
service composition, ubiquitous
computing, web 2.0

The group secretary for the Intelligence,
Agents, Multimedia Group is [Jane
Morgan](#).

Additional Contact Details

[I may be here](#)

Duties

ECS - Staff Training Budget
ECS - Travel Budget
Staff Teaching allocation (with Mark
Zwollinski)

Hugh works with:

- [Dr Ian Millard](#) ([explain](#))
- [Afraz O Jaffri](#) ([explain](#))
- [Professor Nigel R
Shadbolt](#) ([explain](#))
- [Dr Nicholas Gibbins](#) ([explain](#))
- [Bene Rodriguez-Castro](#) ([explain](#))
- [Professor David C De
Roure](#) ([explain](#))
- [dr monica mc schraefel](#) ([explain](#))
- [Dr Harish Alani](#) ([explain](#))

This list of people is sourced from
[BKBExplorer](#), the result of an ECS project.
Click on the "explain" link to the right of each
person to find out how they are connected.
Note: the explain link requires heavy
processing and may take some time to load.

Tel: +44 (0)23 8059 6000 | [Contact ECS](#) | [Intranet](#) | © University of Southampton

Concluding Remarks

- **Linked Data works for integration**
- **Much added value**
- **Repositories are a rich source of metadata**
- **Need to support the entire research life-cycle**
- **Linked Data works pretty well**
- **RDF works pretty well**
- **A little Ontology goes a long way**
- **Please don't stop at the repository**
- **Drill down to the science**
- **Go on and get the added value of Linked Data**
- **Worry about your co-reference**
 - Do you have IDs in your repository?
 - Can you reliably identify all the papers of a single person?

You are never alone

- **Ian Millard**
- **ReSIST Project**
- **AKT Project**
- **EnAKTing Project**
- **10 years of collaborators**