

Abstract

- Many people think that the Web has revolutionised the lives of researchers and academics, but to a large extent it has failed.
- This seminar will describe
 - where it has fizzled out
 - explain some of the work that we are engaged in to fan the flames again
 - seek to re-ignite the explosive potential that the web architecture provides.

I Want to Tell You A Story

- It is a story of us
 - Researchers, students, academics
 - Knowledge workers
- It is very partial and ideosyncratic



If you are reading this on the Web, then you're probably wondering how a Web researcher can possibly claim that the Web has failed to have an impact on researchers.

This talk is about how researchers are failing to engage with the Web as writers, disseminators and information producers. This is evidenced in the worldwide attempts to provide Open Access via repositories and in the low priority that researchers give to maintaining accurate and up-to-date home pages and project pages on the web.

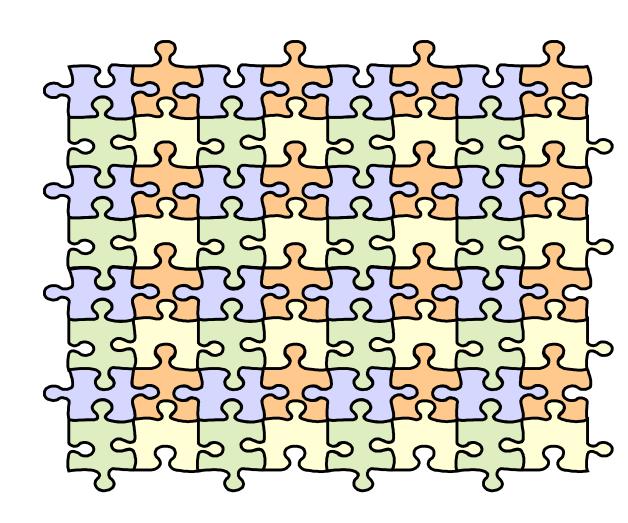
This talk pins the blame on the researchers' relationship to the publishing industry, and their dissociation from their own intellectual outputs. It raises the issue of responsibility in the context of research knowledge.

Plot of the Story (Part I)

- The literature
- Not accessible, subscription etc
- Open Access, Budapest
- Institutional Repositories
- Empty too difficult to fill
- Conclusion Open Access is wrong, repositories are too hard.
- Or is it?

The Literature: As We Imagine

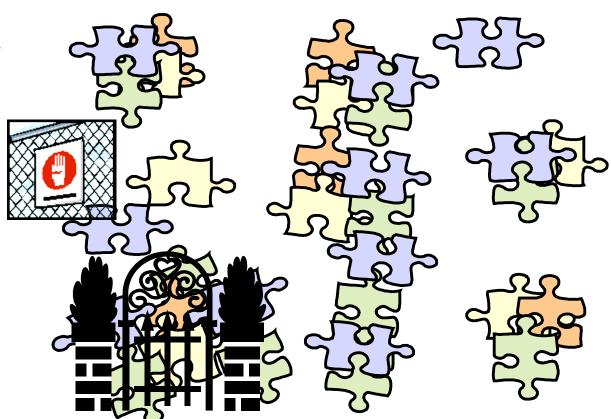
- Integrated
- Available



The Literature: As It Is

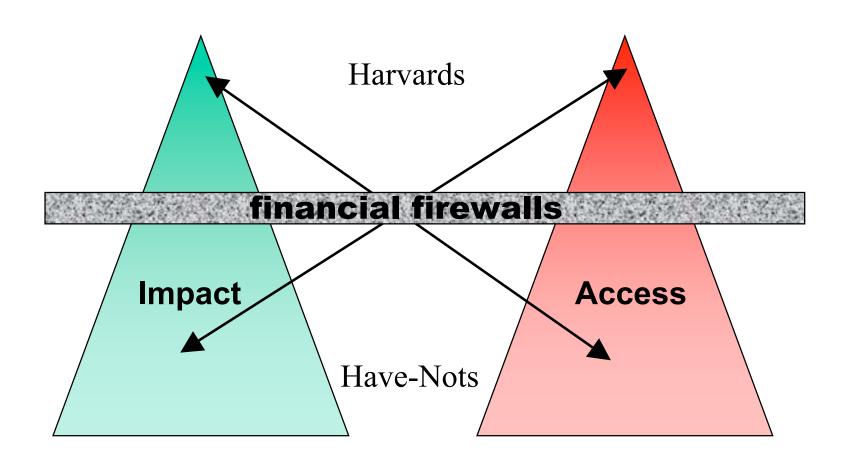
Inaccessible

Disjoint



The Twin Peaks Problem

24,000 journals with 2,500,000 articles/yr



The Budapest Open Access Initiative

- Old tradition of scholarly publishing
 New technology of the Internet
- Public good: free and unrestricted access to peer-reviewed journal literature



An Open Access Strategies

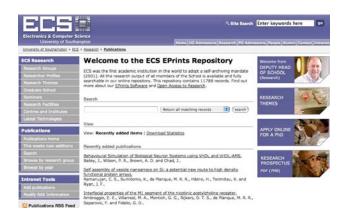
Green: Self-Archiving

- Journals continue as normal
- Authors deposit a copy of their papers into an 'instituional repository'
- Public copy is a supplement to the publishers official article for those who can't afford a subscription
- Also an institutional record of its work for sharing, reuse, marketing etc

Fast Forward to Open Access

- The Optimal and Inevitable for Researchers.
 - The entire full-text refereed corpus online
 - On every researcher's desktop, everywhere
 - 24 hours a day
 - All papers citation-interlinked
 - Fully searchable, navigable, retrievable
 - For free, for all, forever
 Stevan Harnad, Les Carr
 OpCit International DLI Project Proposal (1999)

Problem





- ECS repository, 11,000
 records, 4,000 full text, 80 100% open access to our
 research output.
- Average repository, 300 items, 200 full text, negligible research output
- Recent NIH request for OA achieved 4% compliance

Cliffhanger

Open Access is just too difficult

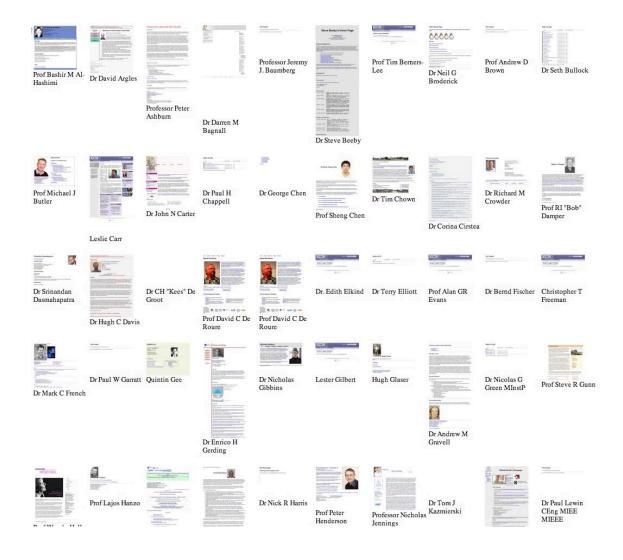
Repositories are too difficult

Only OA nutcases care

Plot of the Story (Part II)

- It's not just OA Repositories that aren't well used
- Neither are home pages, or project pages
- We don't make web dissemination a priority
- In a world of ubiquitous web use, we start to disappear

Home Sweet Home Page?



- 30% of ECS academics don't have working home page
- Neither do 20% of MIT professors

How Knowable Is Our Work?

- How does the outside world (external agents, e.g. journalists, industrialists, students, researchers) find out about us?
 - Google, linking
- Can you find joined up examples
 - BBC story links to researcher's home page links to their research links to opportunities for MSc and Postgraduate study - bingo!
 - No.
 - Not just us look at BBC tech stories about any uni.
 - Some researchers feel they don't need to care about the web.

Plot of the Story (Part III)

- Hypertext researchers go back to Vannevar Bush
- Let's also go back to HG Wells, a decade before
- Who is responsible for knowledge and how can it be found?
- Enter the villain!



H. G. Wells, World Brain: The Idea of a Permanent World Encyclopaedia, Encyclopédie Française, August, 1937

- Encyclopaedias of the past sufficed for the needs of a cultivated minority
 - universal education was unthought of
 - gigantic increase in recorded knowledge
 - more gigantic growth in the numbers of human beings requiring accurate and easily accessible information

Permanent World Encyclopaedia

- Discontent with the role of universities and libraries in the intellectual life of mankind
- Universities multiply but do not enlarge their scope
 - thought & knowledge organization of the world
- No obstacle to the creation of an efficient index to all human knowledge, ideas and achievements



Vannevar Bush, *As We May Think* Atlantic Monthly, July 1945

- Director of the Office of Scientific Research and Development in USA, coordinating 6,000 American scientists during WW2
- Make our 'bewildering store' of knowledge more accessible
- "For many years inventions have extended man's physical powers rather than the powers of his mind."

Memex

- The Memex (never built) was to be a mechanised device to allow a library user to
 - consult all kinds of written material
 - organize it in any way the user wanted
 - add private comments and link documents together at will.

- A personal library station which held all written articles and journals on microfilm.
 - system of levers allowed users to add links
 - create trails

Wells vs Bush

- Wells: a centralised, managed global knowledge repository to combat fragmenting academic authority.
- **Bush**: a *cross-disciplinary* scholarly paradigm to combat fragmenting scientific knowledge.

The Big Bad Wolf



- 1960s Robbins Report / expansion of higher education & expansion of science budget
- After the war Robert Maxwell decided to publish scientific journals and set up Pergamon Press which was quickly and hugely profitable. (BBC News)
- Up to this point, journal publishing was done by university presses and scholarly societies
- The New Demand made for a very profitable system - with an increasing number of commercial publishers moving into STM.

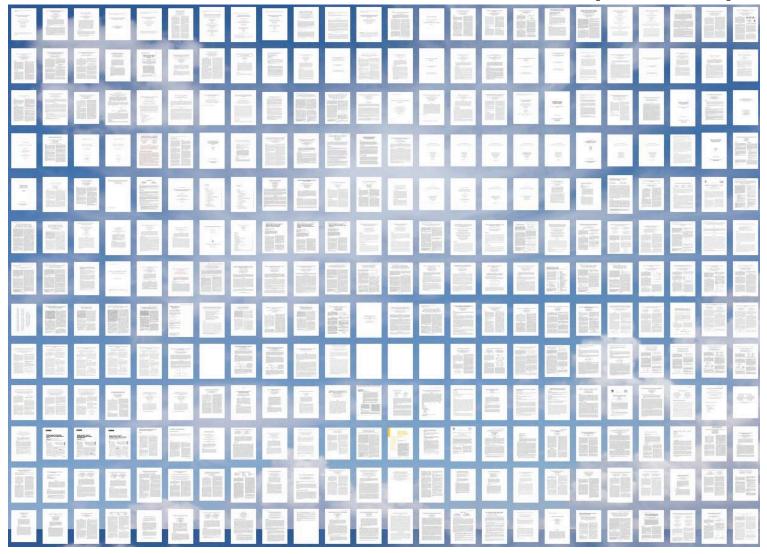
Plot of the Story (Part IV)

- Result is that universities further abdicated on their Wellsian responsibilities
 - Knowledge dissemination outsourced
 - Ownership of research materials given away
- Scholarly comunications now largely in the hands of commercial concerns
- Popular imagination is that publishers do reviewing
 - Researchers are passive consumers of publishers output

Recapitulation Story V = I

- Who takes responsibility for curating the knowledge of the world?
- Back to OA & repositories we do!
- The Institutional repository is a place where the members of an institution can curate their intellectual outputs / knowledge capital
 - Share
 - Use
 - Reuse
- The real Web revolution of ubiquitous knowledge will arrive.

Our Research (ECS)



Only a small part (7%)

Hurrah!
The
goodies
are
winning!

000

Where There is No Vision, The People Perish Proverbs 29:18

New! BCS President - A Year in Pictures

Personal academic web pages ad hoc and 2 years out of date (on average!)







Hypermedia.
the Web

Career

Publications

Grants

IAM Group

Informal Photos

Wendy Hall is Professor of Computer Science at the <u>University of Southampton</u>, UK. She was the founding Head of the <u>Intelligence</u>, <u>Agents</u>, <u>Multimedia</u> (<u>IAM</u>) <u>Research Group</u> in the <u>School of Electronics and Computer Science</u> at Southampton and is currently the Head of School.

Her research interests include the development of web technologies (particularly the Semantic Web), open hypermedia systems and link services, advanced knowledge technologies, digital libraries, multimedia information management, agent-based systems and human computer interaction. More information about her research interests and work can be found by looking at her publications.

Her group developed the open hypermedia system, <u>Microcosm</u>, which was commercially exploited through Multicosm Ltd. The Microcosm software was an ITEA'95 award winner and a BCS IT award winner in 1996. The company is now called <u>Active Navigation Ltd</u>, and focuses on Web-based link services.

Wendy was awarded a CBE in the Queen's Birthday Honours list in June 2000, and became a Fellow of the Royal Academy of Engineering (EREng) in the same year. She is a Fellow of the British Computer Society (ERCS) and a



ECS - Prof Wendy Hall

Publications, PrePrints etc.

Number of items: 378.

Article

Bailey, C., Hall, W., Millard, D. E. and Weal, M. J. (2007) Adaptive Hypermedia through Contextualised Open Hypermedia Structures. ACM Transactions on Information Systems 25(4).

Andric, M., Devedzic, V., Hall, W. and Carr, L. (2007) Keywords linking method for selecting educational web resources à la ZigZag. International Journal of Knowledge and Learning (IJKL) 3(1)

Andric, M., Devedzic, V., Hall, W. and Carr, L. (2007) Keywords linking method for selecting educational web resources à la ZigZag. International Journal of Knowledge and Learning (IJKL) 3(1)

Web: A Peer-to-Peer Approach to Hypermedia Link Services. ACM Transactions on Internet

Framework for Web Science. Foundations and Trends in Web Science 1(1) pp. 1-130.

(2006) Extending the role of a healthcare digital library environment to support orthopaedic research. Health Informatics Journal 12(2) pp. 93-105.

O'Hara, K., Morris, R., Shadbolt, N., Hitch, G. J., Hall, W. and Beagrie, N. (2006) Memories for Life: A Review of the Science and Technology. Journal of the Royal Society Interface.

Shadbolt, N., Berners-Lee, T. and Hall, W. (2006) The Semantic Web Revisited. IEEE Intelligent Systems 21(3) pp. 96-101.

Berners-Lee, T., Hall, W., Hendler, J., Shadbolt, N. and Weitzner, D. (2006) Web Science. Science

and development costs. Computers in Industry 56(7) pp. 681-698.

Maier, P., Armstrong, R., Hall, W. and Ng, M. H. (2005) JointZone: users' view of an adaptive online learning resource for rheumatology. Learning, Media and Technology 30(3) pp. 281-297.

Wills, G., Miles-Board, T., Bailey, C., Carr, L., Gee, Q., Hall, W. and Grange, S. (2005) The Dynamic Review Journal: a scholarly archive. New Review of Hypermedia and Multimedia 11(1) pp. 69-89.

Crowder, R., Hughes, G. and Hall, W. (2003) Approaches to Locating Expertise using Corporate Knowledge. International Journal of Intelligent Systems in Accounting, Finance and Mangement 11

Alani, H., Kim, S., Millard, D. E., Weal, M. J., Hall, W., Lewis, P. H. and Shadbolt, N. R. (2003) Automatic Ontology-Based Knowledge Extraction from Web Documents. IEEE Intelligent Systems

Crowder, R., Wills, G. and Hall, W. (2003) Evaluation of a hypermedia maintenance support

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pp. 30-45.

Zhou, J., Hall, W., De Roure, D. and Dialani, V. (2007) Supporting Ad Hoc Resource Sharing on the

Berners-Lee, T., Hall, W., Hendler, J. A., O'Hara, K., Shadbolt, N. and Weitzner, D. J. (2006) A

Miles-Board, T., Carr, L., Wills, G., Power, G., Bailey, C., Hall, W., Stenning, M. and Grange, S.

O'Hara, K., Morris, R., Shadbolt, N., Hitch, G. J., Hall, W. and Beagrie, N. (2006) Memories for Life: A Review of the Science and Technology. Journal of the Royal Society Interface.

313(5788) pp. 769-771. Crowder, R., Wills, G. and Hall, W. (2005) Hypermedia maintenance support applications: Benefits

schraefel, m. c., Carr, L., De Roure, D. and Hall, W. (2004) You've Got Hypertext. Journal of Digital Information (JoDI) 5(1.253).

Postgraduate, full-time

Postgraduate, full-time mlw05r Postgraduate, full-time research Postgraduate, full-time research

Postgraduate, full-time research

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Interests: semantic web VCard: http://vcard.ecs.soton.ac.uk/person/1650

Seminars Given and Upcoming

Web Science Briefing (Wednesday 20th September, 2006)

Memberships

- Strategy Committee
- Finance Committee
- Strategy Committee
- Head of school
- Policy and Resource Committee

Projects

- AIMS: Academic Information Management Systems
- AKT: Advanced Knowledge Technologies
- Churchill Archive Project
- COHSE: Informed WWW Link Navigation Using Ontologies
- Collaborative Orthopaedic Research Environment
- Equator
- FIRM: Factory Information Resource Management
- Hystream: Applying Open Hypermedia to Multimedia Streams
- Knowledge Capture, Sharing and Reuse in the Design Process LinkMe: Distributed Link Services for Mobile Environments
- Magnitude: Mobile AGents Negotiating for ITinerant Users in the Distributed
- Malibu Hybrid Libraries
- Management Reporting System
- Market-Based Recommender Systems
- Mavis: Multimedia Thesaurus and Intelligent Agent support for content based retrieval
- OpCit: The Open Citation Project
- Perspectives in Electronic Publishing OuIC: Oueries in Context
- Turing Archive Project Virtual Orthopaedic European University

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Prof Tim Berners-Lee

A Prof Brian S Collins

A John Darlington

Simon J Farrenden

Dr Jessie MN Hey

A Dr Gary J Hill Dr Steve M Hitchcock

A Prof R James

Maralyn B Knight

Paul Kelly

Joyce Lewis

Ms D Mead

A Lynn Oloro

Dr Su White

Reena Pau

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Portal pages: draw together all official info from many databases



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Homepage: http://www.ecs.soton.ac.uk/~wh/ Email: wh@ecs.soton.ac.uk Interests: semantic web

VCard: http://vcard.ecs.soton.ac.uk/person/1650

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- OpCit: The Open Citation Project
- Perspectives in Electronic Publishing
- QuIC: Queries in Context
- Turing Archive Project
 Virtual Orthopaedia Fu
- Virtual Orthopaedic European University

Semantic web portal pages: equivalent information published as RDF. Policy establishes ontology, individuals and **persistent URIs**.

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Demo Repository



About Browse by Year Browse by Subject

Logged in as Unnamed user with email lac@ecs.soton.ac.uk | Manage deposits | Profile | Saved searches | Review | Admin | Logout

Search

The Semantic Web Revisited

Shadbolt, Nigel and Berners-Lee, Tim and Hall, Wendy (2006) The Sema-

(3). pp. 96-101. ISSN 1541-



PDF - Requires a PDF viewer such as GSview, Xpdf 127Kb



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Image (JPEG) 17Kb



Other (Spreadsheet) - Registered users only 14Kb



Abstract

The original Scientific American article on the Semantic Web appeared in 2001. It described the evolution of a Web that consisted largely of documents for humans to read to one that included data and information for computers to manipulate.

The Semantic Web is a Web of actionable inf interpreting the symbols. This simple idea, ho Web, but these are essentially handcrafted for and information types. Because we haven't ye that the Semantic Web has failed to deliver. and that the Web standards for expressing sh we see the use of ontologies in the e-science use of HTTP within the CERN particle physic

Repository pages: metadata and data deposited by user on a regular basis (backed by policy) for Open Access.

Demo Repository



► Mexican Musk Turtles and Man

► The Citation Advantage of Open Access

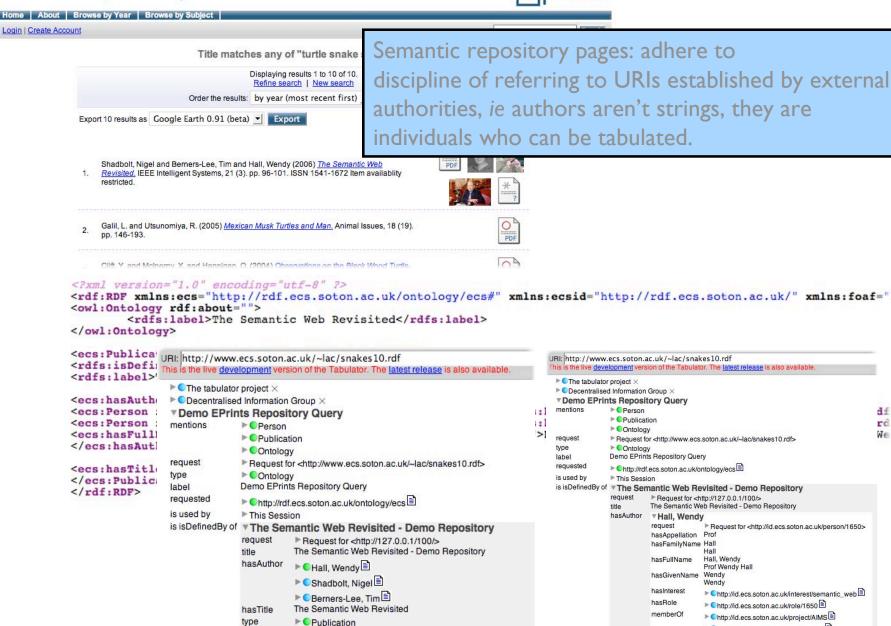
Home About Browse by Year Browse by Subject Login | Create Account Search Title matches any of "turtle snake semantic" Displaying results 1 to 10 of 10. Refine search | New search Order the results: by year (most recent first) ▼ Reorder RDF Atom RSS 1.0 RSS 2.0 Export 10 results as Google Earth 0.91 (beta) ▼ Export Shadbolt, Nigel and Berners-Lee, Tim and Hall, Wendy (2006) The Semantic Web 1. Revisited. IEEE Intelligent Systems, 21 (3). pp. 96-101. ISSN 1541-1672 Item availability Galil, L. and Utsunomiya, R. (2005) Mexican Musk Turtles and Man. Animal Issues, 18 (19). 04 Clift V and Molnamy X and Hannings O (2004) Observations on the Black Wood Turtle <?xml version="1.0" encoding="utf-8" ?> <rdf:RDF xmlns:ecs="http://rdf.ecs.soton.ac.uk/ontology/ecs#" xmlns:ecsid="http://rdf.ecs.soton.ac.uk/" xmlns:foaf=" <owl:Ontology rdf:about=""> <rdfs:label>The Semantic Web Revisited</rdfs:label> </owl:Ontology> <ecs:Publication rdf:about="http://127.0.0.1/100/"> <rdfs:isDefinedBy rdf:resource=""/> <rdfs:label>The Semantic Web Revisited</rdfs:label> <ecs:hasAuthor> <ecs:Person rdf:about="http://id.ecs.soton.ac.uk/person/2686"><ecs:hasFullName>Shadbolt, Nigel</ecs:hasFullName><rdf <ecs:Person rdf:about="http://id.ecs.soton.ac.uk/person/7113"><ecs:hasFullName>Berners-Lee, Tim</ecs:hasFullName><rd <ecs:hasFullName rdf:about="http://id.ecs.soton.ac.uk/person/1650">Hall, Wendy</ecs:hasFullName><rdfs:label>Hall, We </ecs:hasAuthor> URI: http://www.ecs.soton.ac.uk/~lac/snakes10.rdf <ecs:hasTitle>The Semantic Web Revisited</ecs:hasTitle> This is the live development version of the Tabulator. The latest release is also available. </ecs:Publication> ▶ The tabulator project × ▶ ODecentralised Information Group × ▼ Demo EPrints Repository Query mentions ▶ Person ▶ ● Publication Semantic repository pages: equivalent ▶ Ontology request Request for http://www.ecs.soton.ac.uk/~lac/snakes10.rdf information published as RDF. ▶ Ontology type Demo EPrints Repository Query label requested ► Ohttp://rdf.ecs.soton.ac.uk/ontology/ecs is used by ► This Session is isDefinedBy of ▶ The Semantic Web Revisited - Demo Repository

Demo Repository



► Ohttp://id.ecs.soton.ac.uk/project/AKT

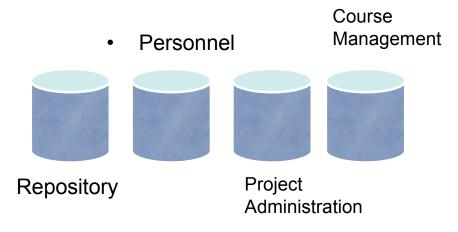
► Chttp://id.ecs.soton.ac.uk/project/COHSE



isDefinedBy ▶ € Demo EPrints Repository Query 🖹

The Semantic Institution

- The Repository is a single player in an institution's knowledge publishing activities
 - Artefacts
 - Agents
 - Activities
- Different domains of authority over different kinds of information
- Should be an integrated policy for information publishing
 - Who assigns ids to what?
 - Who makes statements about what?



The Semantic Nation



- Semantic Individuals
 - researchers who curate their own intellectual capital using repositories
- combine to make Semantic Institutions
 - organisations that defines policies on naming, identification, information sharing and preservation
 - see recent ECS initiative
- which co-operate to form a Semantic Nation
 - loose co-operation via SPARQL endpoints allow agents to query and combine all the information exported by every institution

Semantic Mashups

Mashups are impressive only because they are difficult



AKT award-winning CS AKTivespace involved ACM classification, EPSRC database, mining entire national CS home pages, RAE database, publication list & making proto Google Map

A Misty Look into the Future: Plot of the Story VI

- Ubiquitous knowledge
- No need for ignorance
- What are the implications for devices, services, us, education.

Personal Experience

- While talking on the phone (e.g. to a potential collaborator) I can appear not too uninformed if I use Google to look up all the projects and people that they mention.
 - I can make links between what I discover and what I know
 - I can do it fast enough to keep up with the conversation
 - BUT the keyboard clicks make it obvious to the other party

A Turing Test

- Can you tell the difference between a real expert and someone faking it with Google?
 - or other more advanced knowledge tools
- What are the limitations on chicanery?
 - How unintrusive can the technology be?
 - How should the queries be made?
 - How should the results be shown?
 - What sort of answers can be faked?
 - cf Bloom

Experimental Proposal

- Who Wants to Cheat at Millionaire?
 - How well can you perform if one of your lifelines is 30-seconds on Google?
 - A minute, two minutes
 - All your lifelines are Google
 - Every answer can use Google

This is Bloom's lowest layer - RECALL.

Experimental Proposal

- Open Book Exams?
 - How well can you perform on "understanding" questions in a typical Part I undergraduate exam (with Google)?
 - How long do you need?
 - How much do you retain?

Work your way up through Bloom

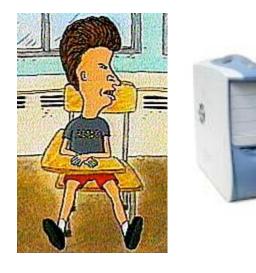
Why is this Important

- In a world with ubiquitous calculators, no-one needs to know how to use log tables or Napier.
- In a world with ubiquitous knowledge sources immediately to hand, no-one needs to know ?anything?
- What are the limits on knowledge support - what do people need to learn.

What's the Difference?

Clever Chap + Learning = Expert Idiot + Google = Expert?





The End

A "Total Imagination" Production
by
Leslie Carr