

Engines, and Endpoints, and Apps!

(oh my)

- The ESW Wiki is a good source:
 - <http://esw.w3.org/topic/SparqlImplementations>
 - <http://esw.w3.org/topic/DawgShows>
- Far too much to explore now!
 - Brief mention of notable engines
 - Tour of several SPARQL based apps
- Excellent web client
 - http://demo.openlinksw.com/sparql_demo/#

(some) Notable RDF engines

- Oracle (SPARQL syntax coming)
- AllegroGraph
- OpenLink Virtuoso (Open Source as well)
- ARQ and Joseki from HP
- IBM's Boca ([ARQ](#) and [native interface](#))
- Rasqal for Redland
- SWI-Prolog
- Sesame
- D2R Server

(Some) notable OWL engines

(With conj. Query support)

- Pellet
- KAON2
- Racer (Not SPARQL syntax yet)
- QuOnto (DL Lite, online demo, not SPARQL syntax yet)

Garlik.com

- UK Based tech startup
 - “give people real power over their online data”
 - \$18.5m in venture capital
 - Incorporates members from the 3Store team
- DataPatrol
 - Reports on personal information online
 - Uses SPARQL to build these reports
 - Currently 57,000 users!
 - See the demo:
 - <http://www.garlik.com/index3.php?page=demo>
- Key developer, Steve Harris, member of DAWG

Garlik: Tech details

- Reports

- 500-2000 SPARQL queries to build a report
 - Often recursive, i.e., using prior results to find next ones
- 8 knowledge bases of 2 billion triples each
- Reports take **1-2 seconds** to generate

- Query characteristics

- Highly heterogenous
- Lots of GRAPH and OPTIONAL
- Some FILTER and ORDER BY

- Results

- XML Format but not the protocol (for performance)

JSpace

- An extended mSpace clone
 - <http://clarkparsia.com/jspace>
 - mSpace developed at U. of Southampton
 - “Google meets iTunes”
 - <http://www.mspace.fm/>
- Selections drive query building
 - Each column selection instantiates a variable and adds some conjuncts
 - One can browse intermediate results

POPS (a JSpace app)

- Expertise location service for NASA
 - NASA has lots of idiosyncratic problems/systems
 - Roladex culture
 - Serendipity is key
- Federates 4 diverse data sources
 - 4.5M triples
 - Most queries are built by browsing
 - Fixed queries for info pane and socnet
- Pilot for Office of the Chief Engineer
 - Production will see 10,000 users

BIANCA

- **Business Impact Analysis for Network Computer Assets**

- Integrated view of applications, servers, networks, and changes, and their relations
- Supports interruption analysis
- Sensitive data, so few users (~50) but high impact
- One of the first deployed SemWeb Apps at NASA

- **Tech details**

- 100,000 triples
- 6-8 sorts of queries
 - Classification tree, instance retrieval, graph building

HCLS demos

- Health Care and Life Sciences Interest Group
 - Organized by W3C; about 60 members
 - “chartered to develop and support the use of Semantic Web technologies and practices to improve **collaboration, research and development**, and **innovation adoption** in the [of HCLS] domains”
- Demo for WWW
 - Google Maps based interface for Allen Brain Atlas
 - 20,000 genes, 400000 images
 - Scraped 80,000 web pages to RDF

Allen Brain Atlas

Allen Brain Atlas - Thumbnail View

View Detailed Images Close Window

Hide Thumbnails Kcnip3 - Kv channel interacting protein 3, calseinin - sagittal - (17 images) Series Info

Select This Series to View in Detail Show thumbnails in expression view

Kcnip3_10 Position: 250 Show expression view

Kcnip3_18 Position: 450 Show expression view

Kcnip3_34 Position: 650 Show expression view

Kcnip3_42 Position: 1050 Show expression view

Kcnip3_50 Position: 1250 Show expression view

Kcnip3_58 Position: 1450 Show expression view

Kcnip3_66 Position: 1650 Show expression view

Kcnip3_74 Position: 1850 Show expression view

Kcnip3_98 Position: 2450 Show expression view

Kcnip3_106 Position: 2650 Show expression view

Kcnip3_114 Position: 2850 Show expression view

Kcnip3_148 Position: 3650 Show expression view

Kcnip3_154 Position: 3850 Show expression view

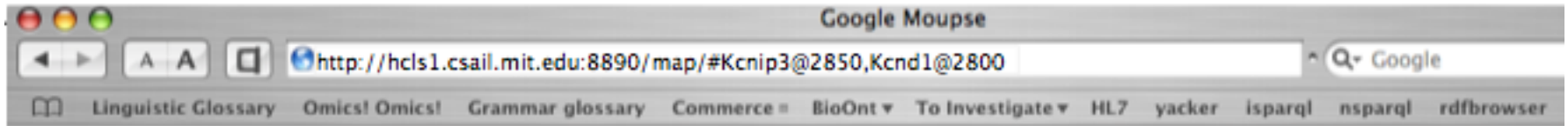
Allen Brain Atlas ...eries Information

IMAGE SERIES INFORMATION

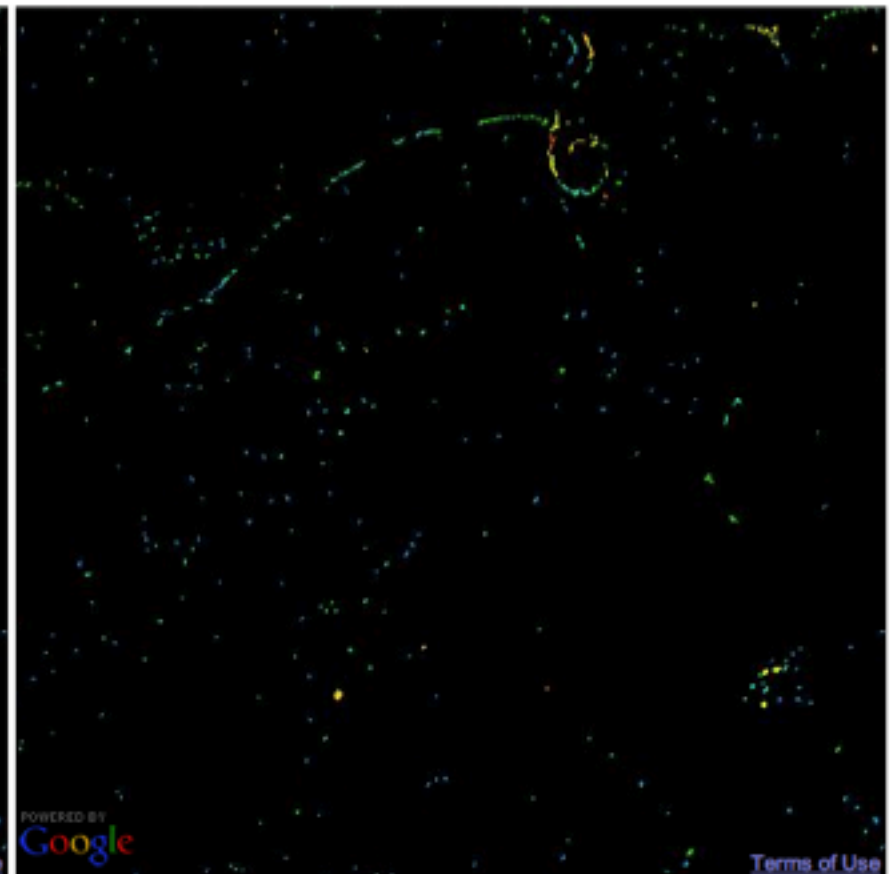
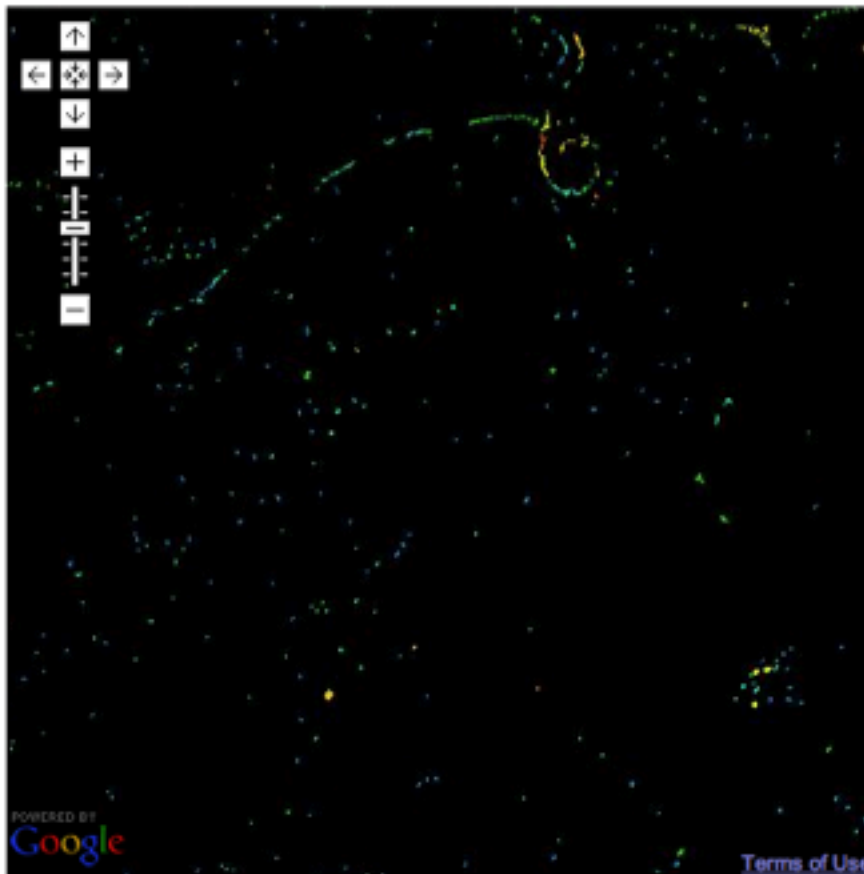
Gene:	Kv channel interacting protein 3, calseinin (Kcnip3)
Images:	17
Probe info:	Probe
Plane of Section:	sagittal
Probe Orientation:	antisense
Organism:	Mus musculus
Strain:	C56/B57
Age:	56 days
Sex:	male

Close

Google Maps/SPARQL/Allen Brain Atlas



- [documentation on google maps](#)
- [server side source code](#)
- [html source code](#)

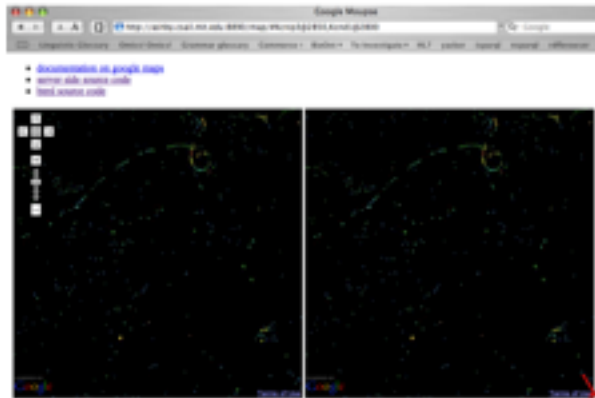


Slide from Alan Ruttenberg
<http://tinyurl.com/ysqm3z>

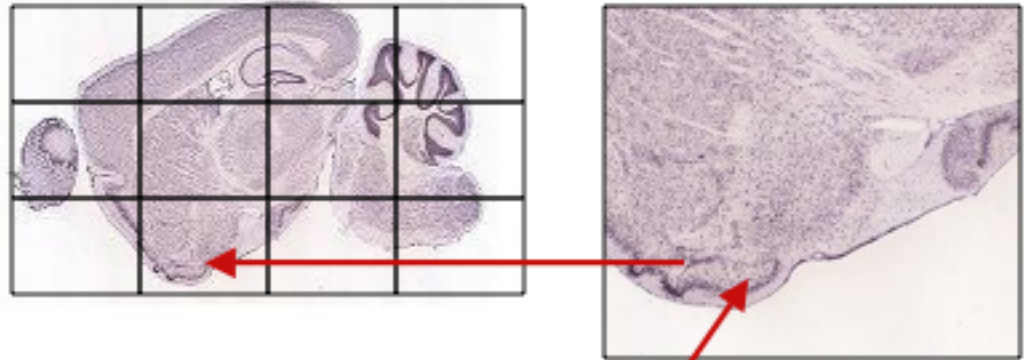
Architecture

<http://hcls1/map/#Kcnip3@2850,Kcnd1@2800>

Javascript



Allen Brain Institute Servers



http://www.brainmap.org://....0205032816_B.aff/TileGroup3/1-0-1.jpg

SPARQL
AJAX

Query

URL



Neurocommons Servers

Google
Maps
API



Thanks

- To Steve Harris for Garlik.com info
- To Kendall Clark and Andrew Schain for POPS/BIANCA details
 - See Kendall's seminal article:
[SPARQL: Web 2.0 Meet the Semantic Web](#)
- To Mike Grove and Mike Smith for JSpace demo set up
- To Alan Ruttenberg for HCLS slides