

Why Libraries are too important to be left to Librarians : Part I

or

What Researchers Really Need



Messages

- Its a 2D problem
- The market is global
- Find a niche
- Internet \neq Web

Who do I identify with ?

- My Library ?
- My University ?
- My Nation ?
- My Discipline ?

try the party test

Subject vs Institution

























	Univ-A	Univ-B	Univ-C	Univ-D
Chemistry				
History				
Physics				
Linguistics				
Philosophy				
Maths				

Trad Solution-1 : Departmental Libraries

	Univ-A	Univ-B	Univ-C	Univ-D
Chemistry	★	★	★	★
History	★	★	★	★
Physics	★	★	★	★
Linguistics	★	★	★	★
Philosophy	★	★	★	★
Maths	★	★	★	★

- maximises uses of domain expertise
- inefficient in storage and staff effort

Trad Solution-2 : Vertical Integration

	Univ-A	Univ-B	Univ-C	Univ-D
Chemistry				
History				
Physics				
Linguistics				
Philosophy				
Maths				

- the central library
- efficient locally
- but duplicates nationally

Trad Solution-3 : National Centre

	Univ-A	Univ-B	Univ-C	Univ-D
Chemistry	★	★	★	★
History	★	★	★	★
Physics	★	★	★	★
Linguistics	★	★	★	★
Philosophy	★	★	★	★
Maths	★	★	★	★

- maximally efficient
- can offer rare items
- but access very slow

Speed vs Efficiency vs Domain Expertise

























Speed vs Efficiency vs Domain Expertise

























	Univ-A	Univ-B	Univ-C	Univ-D
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Physics	★	★	★	★
Linguistics	★	★	★	★
Philosophy	★	★	★	★
Maths	★	★	★	★

The good old days

compromise = Univ library
reasonably efficient
reasonably quick

Speed vs Efficiency vs Domain Expertise

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The good old days

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 reasonably quick

The network age

speed not an issue
 domain expertise wins
 horizontal integration wins
 global not national

What resources does research need ?

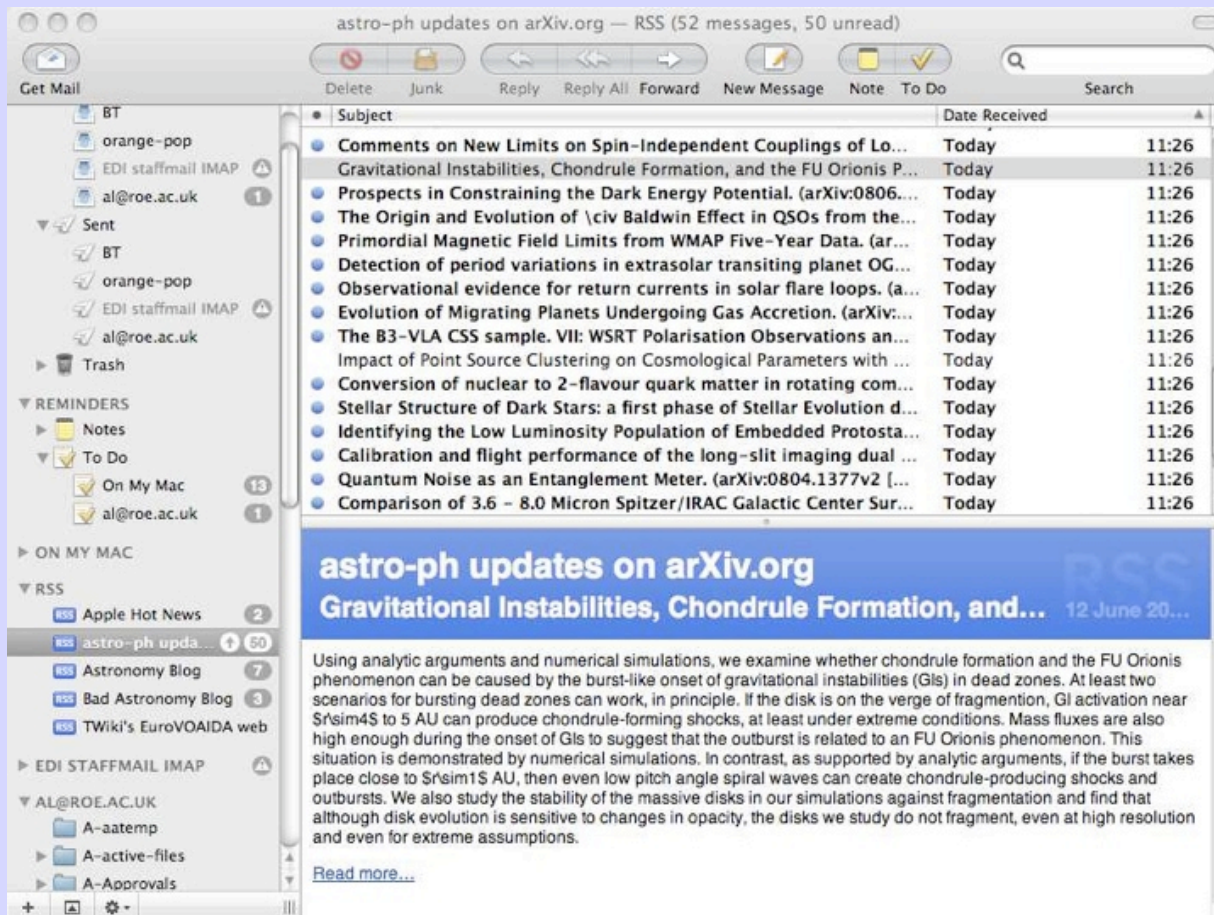
- books
- latest research papers
- archived research papers
- data from research papers
- archived data collections
- live public datasets

Books

- only need a few specialised books
- most in own office or departmental library
- rare books in national libraries
- no case for institutional libraries ?

Latest research papers

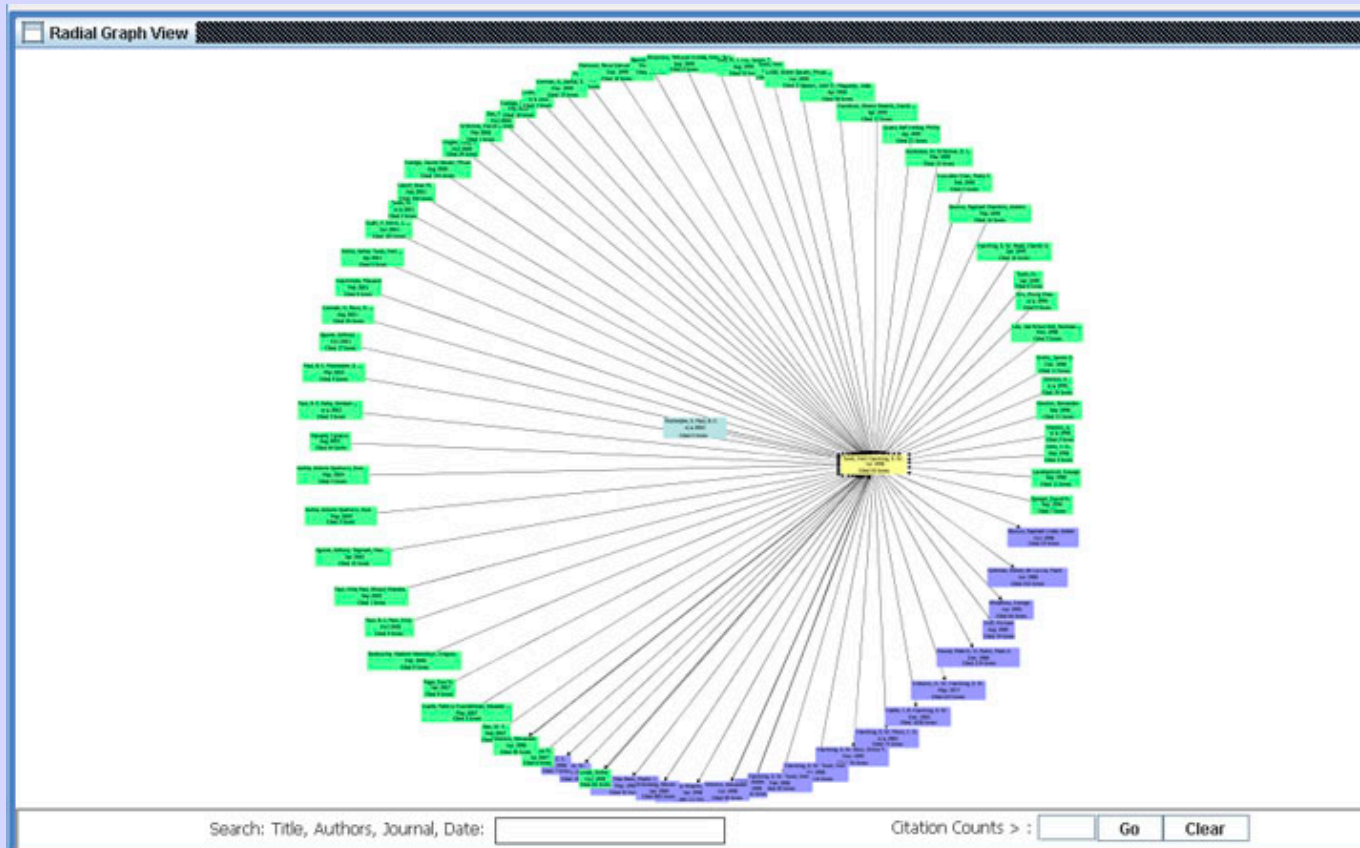
- ALL astronomers put preprints on ArXiv
- available on web or RSS reader



run by Cornell

Archived research papers

- ALL papers available thru ADS
- available on web or Java tool

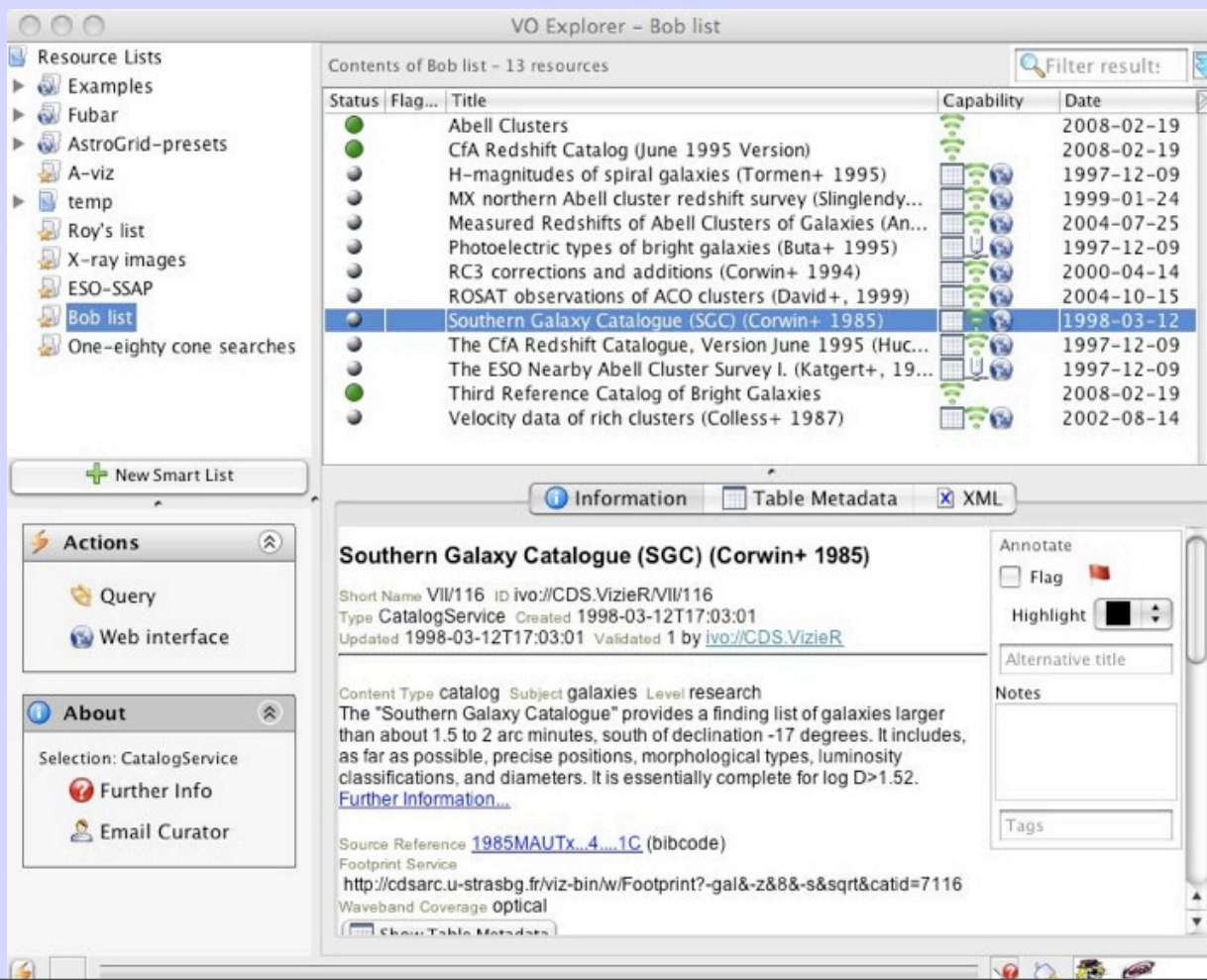


run by
Smithsonian

Data from research papers

- ALL tables available thru Vizier
- available on web or Java tools

run by U.Strasbourg



The screenshot shows the VO Explorer interface with the following components:

- Resource Lists:** A sidebar on the left containing a tree view with items like 'Examples', 'Fubar', 'AstroGrid-presets', 'A-viz', 'temp', 'Roy's list', 'X-ray images', 'ESO-SSAP', 'Bob list' (selected), and 'One-eighty cone searches'.
- Contents of Bob list - 13 resources:** A table with columns for Status, Flag, Title, Capability, and Date. The 'Southern Galaxy Catalogue (SGC) (Corwin+ 1985)' is highlighted in blue.
- Information Panel:** A detailed view for the selected resource, showing its name, ID, type, creation/updated/validated dates, and a description of the catalog.

Status	Flag...	Title	Capability	Date
●		Abell Clusters		2008-02-19
●		CfA Redshift Catalog (June 1995 Version)		2008-02-19
●		H-magnitudes of spiral galaxies (Tormen+ 1995)		1997-12-09
●		MX northern Abell cluster redshift survey (Slinglender...)		1999-01-24
●		Measured Redshifts of Abell Clusters of Galaxies (An...)		2004-07-25
●		Photoelectric types of bright galaxies (Buta+ 1995)		1997-12-09
●		RC3 corrections and additions (Corwin+ 1994)		2000-04-14
●		ROSAT observations of ACO clusters (David+, 1999)		2004-10-15
●		Southern Galaxy Catalogue (SGC) (Corwin+ 1985)		1998-03-12
●		The CfA Redshift Catalogue, Version June 1995 (Huc...)		1997-12-09
●		The ESO Nearby Abell Cluster Survey I. (Katgert+, 19...)		1997-12-09
●		Third Reference Catalog of Bright Galaxies		2008-02-19
●		Velocity data of rich clusters (Colless+ 1987)		2002-08-14

Southern Galaxy Catalogue (SGC) (Corwin+ 1985)
Short Name VII/116 ID ivo://CDS.VizieR/VII/116
Type CatalogService Created 1998-03-12T17:03:01
Updated 1998-03-12T17:03:01 Validated 1 by ivo://CDS.VizieR

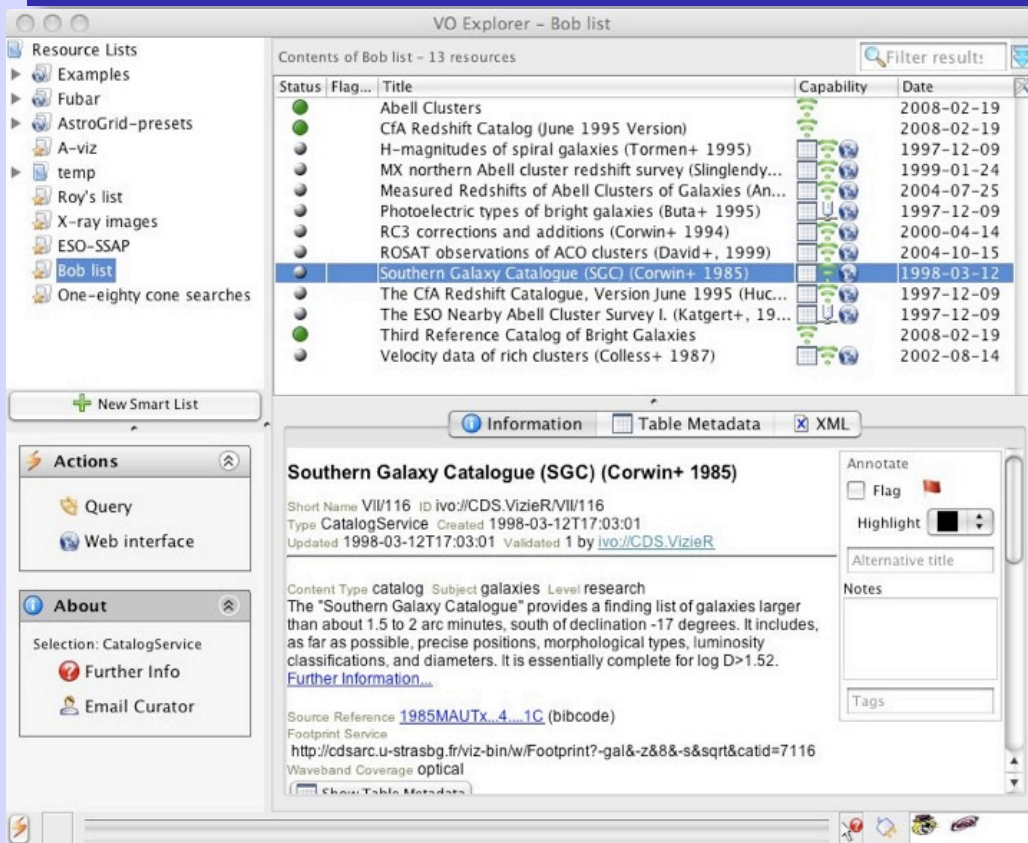
Content Type catalog Subject galaxies Level research
The "Southern Galaxy Catalogue" provides a finding list of galaxies larger than about 1.5 to 2 arc minutes, south of declination -17 degrees. It includes, as far as possible, precise positions, morphological types, luminosity classifications, and diameters. It is essentially complete for log D>1.52.
[Further Information...](#)

Source Reference [1985MAUTx...4...1C](#) (bibcode)
Footprint Service
<http://cdsarc.u-strasbg.fr/viz-bin/w/Footprint?-gal&-z&&-s&sqrt&catid=7116>
Waveband Coverage optical

run by AstroGrid consortium

Direct connection to analysis

Direct connection to analysis



VO Explorer - Bob list

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Information | Table Metadata | XML

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Waveband Coverage optical
[Show Table Metadata](#)

Annotate
 Flag
Highlight
Alternative title
Notes
Tags

Actions
Query
Web interface

About
Selection: CatalogService
Further Info
Email Curator

Direct connection to analysis

The image shows a screenshot of a computer interface with two main windows. The top window is 'VO Explorer - Bob list', which displays a list of 13 resources. The bottom window is 'TOPCAT(1): Table Browser', which shows a table of astronomical data for a file named '6df.vot'.

VO Explorer - Bob list

Contents of Bob list - 13 resources

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TOPCAT(1): Table Browser

Table Browser for 1: 6df.vot

	TARGET	RA	DEC	RA2000	DEC2000	BMAG	RMAG	SGFLAG
1	g0001434-540403	00:01:43.35	-54:04:03.0	0.43063	-54.0675	17.04	16.06	1
2	g0003330-843630	00:03:32.95	-84:36:29.7	0.88729	-84.60825	16.65	16.16	1
3	g0005313-303512	00:05:31.28	-30:35:11.6	1.38033	-30.58656	15.99	14.7	1
4	g0007379-721154	00:07:37.87	-72:11:53.8	1.90779	-72.19828	15.04	14.41	1
5	g0010060-591637	00:10:05.98	-59:16:36.8	2.52492	-59.27689	16.71	14.99	1
6	g0012267-272811	00:12:26.69	-27:28:10.6	3.11121	-27.46961	16.54	15.02	1
7	g0014497-415612	00:14:49.73	-41:56:12.2	3.70721	-41.93672	16.91	16.09	1
8	g0017171-121507	00:17:17.09	-12:15:06.6	4.32121	-12.25183	15.93	15.21	1
9	g0019214-170521	00:19:21.36	-17:05:21.2	4.839	-17.08922	17.	15.89	1
10	g0021438-614240	00:21:43.76	-61:42:40.1	5.43233	-61.71114	15.36	14.81	1
11	g0023562-802734	00:23:56.18	-80:27:34.2	5.98408	-80.4595	16.77	15.24	1
12	g0026219-125906	00:26:21.94	-12:59:05.5	6.59142	-12.98486	17.19	15.92	1
13	g0029010-011342	00:29:00.97	-01:13:41.9	7.25404	-1.22831	16.01	15.05	1
14	g0031357-103023	00:31:35.72	-10:30:22.7	7.89883	-10.50631	14.59	14.47	1
15	g0034092-534523	00:34:09.22	-53:45:23.0	8.53842	-53.75639	12.71	16.11	2
16	g0036052-022014	00:36:05.22	-02:20:13.5	9.02175	-2.33708	16.92	16.11	1
17	g0037589-080426	00:37:58.86	-08:04:26.1	9.49525	-8.07392	15.3	14.51	1
18	g0039553-261243	00:39:55.29	-26:12:43.2	9.98038	-26.212	16.91	15.76	1
19	g0041398-421916	00:41:39.83	-42:19:15.5	10.41596	-42.32097	10.5	9.35	2
20	g0043399-213933	00:43:39.86	-21:39:33.3	10.91608	-21.65925	16.17	15.09	1
21	g0046047-481248	00:46:04.66	-48:12:47.6	11.51942	-48.21322	16.16	15.34	1
22	g0047555-291222	00:47:55.53	-29:12:21.7	11.98138	-29.20603	16.	15.29	1
23	g0049554-824729	00:49:55.39	-82:47:29.4	12.48079	-82.79428	16.85	16.27	1

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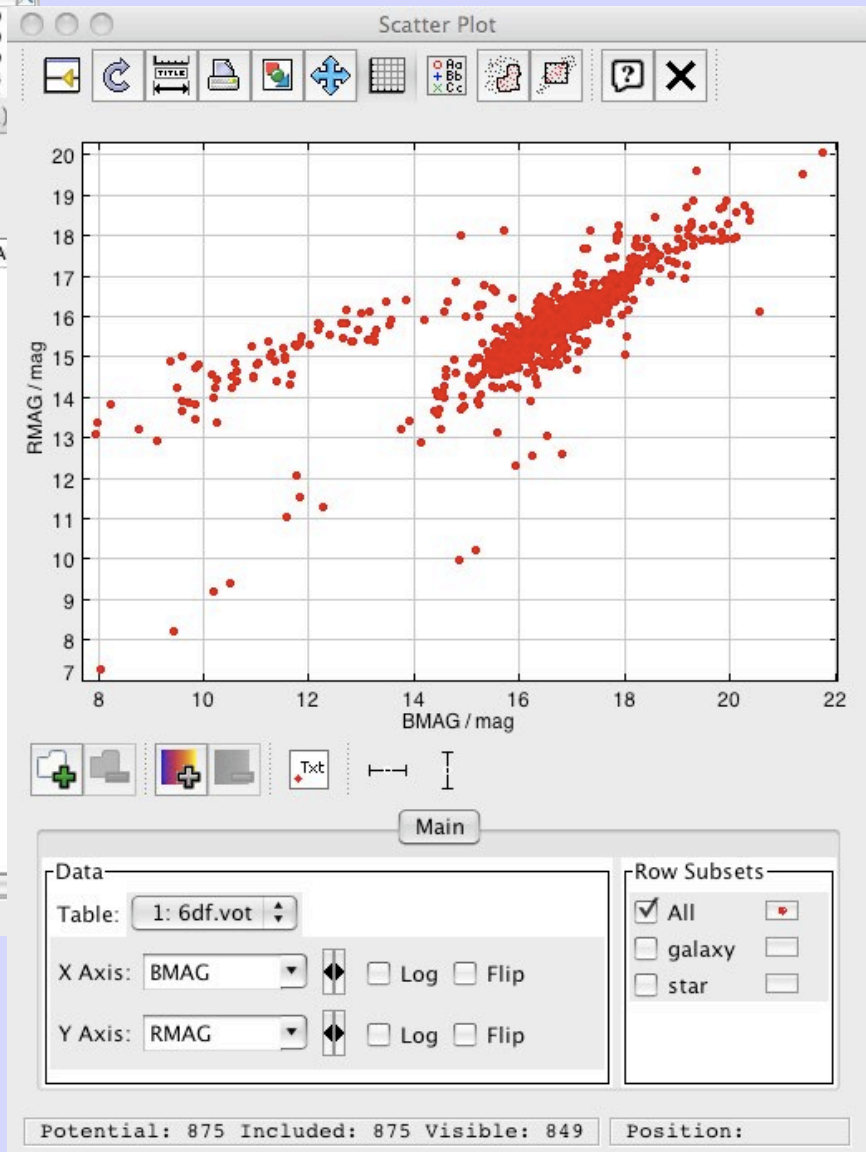
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13 g0029010-011342	00:29:00.97	-01:13:41.9	
14 g0031357-103023	00:31:35.72	-10:30:22.7	
15 g0034092-534523	00:34:09.22	-53:45:23.0	
16 g0036052-022014	00:36:05.22	-02:20:13.5	
17 g0037589-080426	00:37:58.86	-08:04:26.1	
18 g0039553-261243	00:39:55.29	-26:12:43.2	
19 g0041398-421916	00:41:39.83	-42:19:15.5	
20 g0043399-213933	00:43:39.86	-21:39:33.3	
21 g0046047-481248	00:46:04.66	-48:12:47.6	
22 g0047555-291222	00:47:55.53	-29:12:21.7	
23 g0049554-824729	00:49:55.39	-82:47:29.4	



Data collections

- curated by various data centres world wide
- published in various registries run by AstroGrid, Strasbourg, Caltech, ESA, NASA
 - no need for central repository
 - registries are "smart repositories"
- follows standards agreed by IVOA
 - global subject based standards body
 - but built on Dublin core ..
- searchable and analysable by various tools

Whats left for libraries ?

- many global services provided by Universities
 - find a niche; solve *one problem* at a time
- physicists like rolling their own
- but others will prefer pret-a-porter
- not just storage
 - curation, databases, tools

Conclusions

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- The Library is dead

Conclusions

- The Library is dead
- Long Live Librarians

Conclusions

- The Library is dead
- Long Live Librarians
- Sprinkle them over the garden

FIN

Traditional Library Tasks

- store
- provide study space
- organise and catalogue
- preserve
- provide access
- purchase

Traditional Library Tasks

TASK	STILL NEEDED ?	WHY ?
store	no	who needs books ?
provide study space	no	was only needed because of the books
organise and catalogue	maybe	better done by domain experts ?
preserve	maybe	better done by domain experts ?
provide access	maybe	better done by domain experts ?
purchase	maybe	depends on outcome of open access war