# Integrated repositories: usage, citations and other metrics

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### Contents

- Making best use of existing services
- Integration of ISI
- Integration of Google Scholar
- Use of citation data in the repository
- Repository usage statistics

### ISI Web of Science Web Services

- An API for the science-citation index (and related databases)
- Supports: search, record retrieval, citing/cited article lists
- Search over most ISI fields e.g. title, authorname, author-affiliation
- Retrieve full records: bibliographic data + abstract + citings
- SOAP (XML query/response)

### What we can do with ISI

- Add citation counts for our records
- (Re)publish most bibliographic fields for our publications e.g. filling in blanks
- Required to add a note that the data comes from Web of Science
- Can't republish list of citing/cited articles
- Can't republish abstracts (publisher copyright)
- No technical means to link to ISI record (unstable URLs) ???

# Integration with ISI

- Built a wrapper for SOAP API that:
  - Provides a search() method
  - Extracts result record XML
- Script that searches repository for relevant records to update:
  - is journal article OR conference item
  - Queries ISI ...
  - Sets cited count for any matches found

# **Querying ISI**

- Find the matching record in ISI's database
- First-named author:
  - Kiang, K. M., Frampton, K., Monro, T. M., ...
  - au = Kiang K\*
- Title:
  - Extruded single-mode non-silica glass holey optical fibres
  - ti = Extruded single mode ...
- (au = Kiang K\*) AND (ti = Extruded single mode ...)

# Performance of Matching

- Problems with inconsistent (or incorrect) titles
- (TODO: Check false-positives)
- Easy to refine search query

### Google Scholar

- Web site with a boolean query interface
- Can search for citing articles
- Blocks anything that queries too often no service agreement
- No structured data, except for cite count



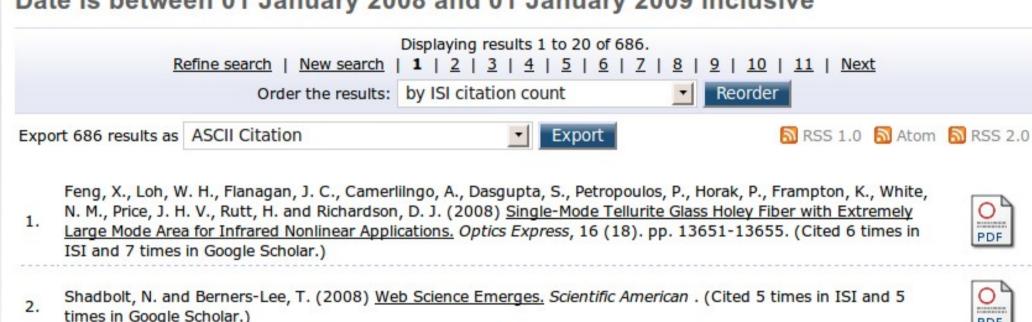
# Integration with Scholar

- A fake Web user that:
- Queries for title + name:
  - "Extruded single-mode ... author:Kiang K"
- Searches the first 100 matches:
  - a record that links to the repository OR
  - where the title link is identical
- Updates record with "Cited by X" count

### Adding Citations to the Repository

- Citation counts added as new metadata fields:
  - ISI Total Citations
  - Google Scholar Total Citations
- Added to search results
- Added as a sort-by value

#### Date is between 01 January 2008 and 01 January 2009 inclusive



# Not forgetting Elsevier's Scopus



#### THE UNIVERSITY OF LIVERPOOL RESEARCH ARCHIVE

#### Login

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Policies

Copyright Awareness

Depositors Helpline

### CpG island methylation phenotype (CIMP) in oral squamous cell carcinoma: associated with a marked inflammatory response and less aggressive tumour biology

Shaw, Richard J.; Hall, Gillian L.; Lowe, Derek; Bowers, Naomi L; Liloglou, Triantafillos; Field, John K.; Woolgar, Julia A. and Risk, Janet M. (2007) CpG island methylation phenotype (CIMP) in oral squamous cell carcinoma: associated with a marked inflammatory response and less aggressive tumour biology. Oral Oncology, 43 (9), pp. 878-886. ISSN 1368-8375



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Cited 14 times in SCOPUS



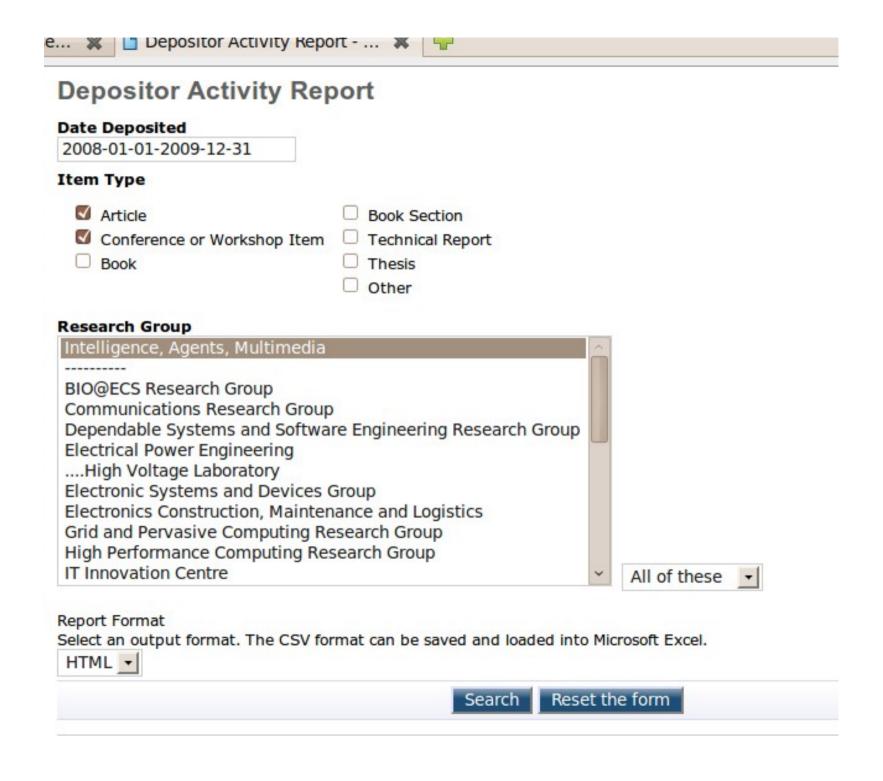
#### Abstract

Studies in several tumour sites highlight the significance of the CpG island methylation phenotype (CIMP), with distinct features of histology, biological aggression and outcome. We utilise pyrosequencing techniques of quantitative methylation analysis to investigate the presence of CIMP in oral squamous cell carcinoma (OSCC) for the first time, and evaluate its correlation with allelic imbalance, pathology and clinical behaviour. Tumour tissue, control tissue and PBLs were obtained from 74 patients with oral squamous cell carcinoma. Pyrosequencing was used to analyse methylation patterns in 75–200 bp regions of the CpG rich gene promoters of 10 genes with a broad range of cellular functions. Allelic imbalance was investigated using a multiplexed panel

# Reporting to research managers

- A tool that summarises the repository content
- Not being used for comparing (competing) people, groups

- Are faculty depositing their research?
- Proportion of deposits that are primary research outputs (vs. grey literature)?
- What are the notable papers (by cites)?

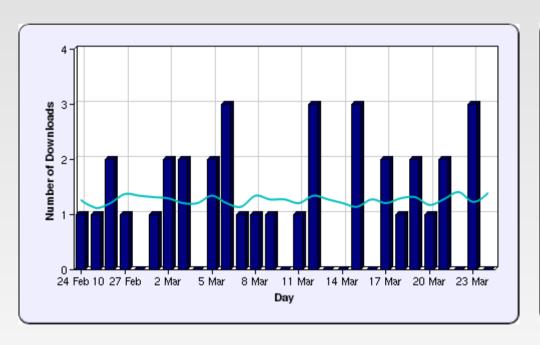


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Name	Username	Authored J	ournal (	Conference 1	In-ISI	(SI-Cites	In-GScholar	GScholar-Cites
Alahmari, Saad	saa08r	1	0	1	0	0	0	0
Alani, Harith	<u>ha</u>	13	3	10	4	7	7	52
Aldeco Perez, Rocio	raap06r	1	0	1	0	0	0	0
Andre, Paul	<u>pa2</u>	13	1	12	3	0	8	52
Au Yeung, Ching Man	cmay06r	11	0	11	1	0	6	23
Bandara, H	locked 2404	1	0	1	1	1	0	0
Berners-Lee, Tim	<u>timbl</u>	2	2	0	2	11	2	42
Braines, Dave	db06v	13	0	13	1	0	12	40
Brody, Tim	tdb2	3	1	2	0	0	1	1
Brody, Timothy	locked 1403	1	1	0	1	3	1	198
Byde, Andrew	ab06v	2	1	1	1	0	2	3
Carr, Les	<u>lac</u>	23	6	17	3	3	7	206
Chalkiadakis, Georgios	gc2	8	0	8	1	0	4	30
Chapman, Archie	locked 5438	5	1	4	0	0	0	0
Chen, Zheng	<u>zc05r</u>	3	0	3	1	1	3	218
Correndo, Gianluca	<u>gc3</u>	13	2	11	2	0	6	35
Croitoru, Madalina	locked 5463	6	0	6	5	0	5	15
Crowder, Richard	<u>rmc</u>	13	1	12	5	0	5	7
Dash, Rajdeep	<u>rkd</u>	3	3	0	2	0	3	6
De Roure, David	<u>dder</u>	34	12	22	11	4	11	75
Diamantas, Sotirios	<u>sd04r</u>	1	0	1	1	0	0	0
Dunnlaw David	hab	8	2	6	7	2	5	16
Dupplaw David	dnd	8	2	6	7	2	5	

### **Usage Data**

- Analyse usage of full-texts in the repository
  - Feedback to authors
  - Compare with cites
- Future: integrate repository usage with other venues
  - Merge journal and repository usage

# **IRStats for Brody's PhD Thesis**





### **Every Eprint Tells a Story**

What explains its download profile? Why makes it popular ... or not?

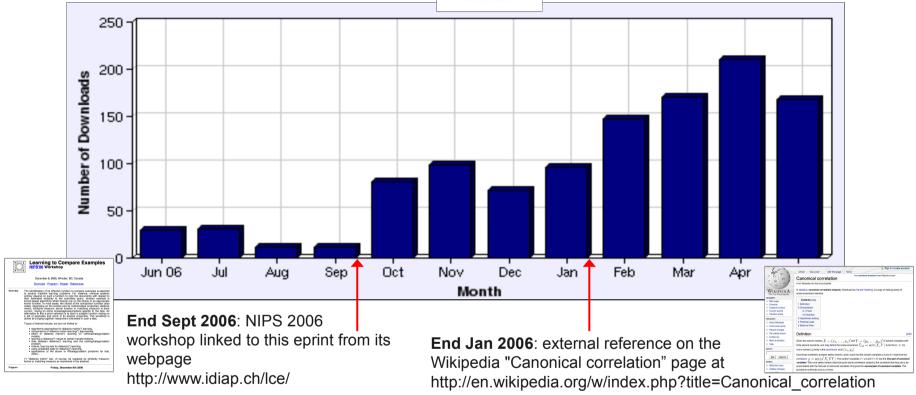
Canonical correlation analysis; An overview with application to learning methods.

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Technical Report
CSD TR 60 402
May 28, 2003

Hardoon, D. R., Szedmak, S. and Shawe-Taylor, J. (2003) Canonical correlation analysis; An overview with application to learning methods. Technical Report CSD-TR-03-02, Computer Science Department, Royal Holloway, University of London.

http://eprints.ecs.soton.ac.uk/9225/



Both external links bring new visitors directly to this unpublished technical report, but another effect is to increase the Google search traffic as a result of increased PageRank.



### **Thanks**

- ISI tool developed as part of the Readiness4REF project:
  - http://www.kcl.ac.uk/iss/cerch/projects/portfolio/r4r.html
- IRStats developed as part of the Interoperable Repository Statistics project:
  - http://irs.eprints.org/

# **Process**

