



"The Life Science Web Service Registry"

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DILS 09 - ENFIN Colocated Workshop

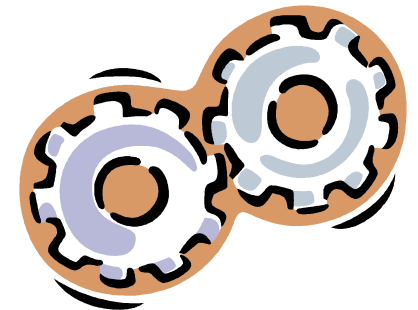
July 2009

Manchester, UK

<http://www.biocatalogue.org>



- A component that you send some inputs to and get some output
- Over a network
- Different locations
- Chained and combined together
- Platform independent



Why BioCatalogue?

Guesstimate 3000+ publicly available
Web Services in Life Sciences

Where?

can I find them? advertise them?

What?

do they do? can I use them?
the cost? the licenses?

How?

do they work? up to date?

Who?

provides them? uses them?
recommends them?



The BioCatalogue

**A Public, Curated Catalogue of Life
Science Web Services**

The BioCatalogue Website

DEMO

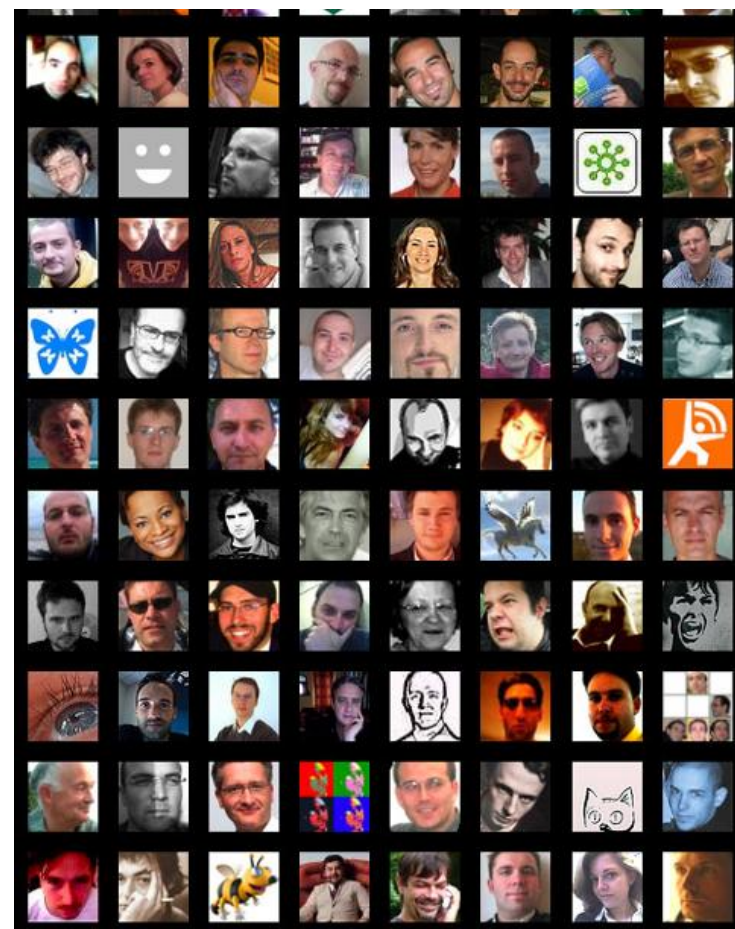
- Easy **submission**, easy **discovery** and better **visibility** of services
- Bringing **service providers**, **curators**, **members**, and **regular users** together
- **Rich metadata**
- **Attribution**
- Combining **subjective**, **objective**, **measurable**, **social** and **automated** information and metrics

- Public, curated catalogue of Life Science Web Services
- Allow anyone to register, discover, curate Web Services
- Share with the community, your colleagues or yourself
- Community-sourced annotation, expert oversee
- Open content, open source, open platform
 - With open REST interfaces (coming soon)
- Web 2.0 site and development

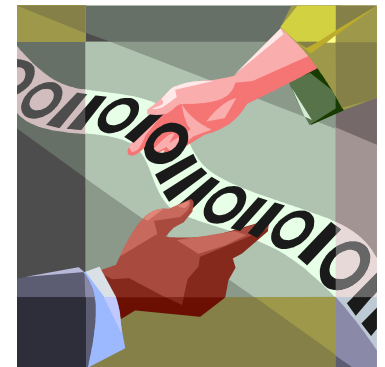
- **Service Providers**
 - Advertise services
 - Get help with monitoring
 - Document services
- **Users**
 - Find and use services
- **Curators**
 - Help by annotating services
 - Experts oversee and curate, together with community
- **Tool Developers**
 - Integrate the BioCatalogue in their tools/applications



- Community contributed
 - Service providers
 - You!
- Sourced from partners and registries
- Expert curators
- Chiefly public services



- Metadata from service description docs
 - Eg: WSDL
- Free text annotations
 - Descriptions, examples, cost, license, contact details, tags
- Categories
- Controlled vocabularies
- Automated monitoring & testing
- Harvesting from other registries
- Working on developing curation mechanisms
 - 'agree', 'disagree', 'useful' etc



Curation Model

Versioning

Ratings

**Quantitative
Content**

Searching Statistics

Usage Statistics

Operational
Metrics

Community
Standing

Provenance

Tags

Controlled vocabs

**Semantic
Content**

Ontologies

Free text

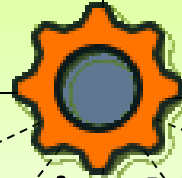
Functional
Capabilities

Interfaces

Operational
Capabilities

Usage Policy

Service Model



Usable and Useful

Understandable

- Started June 2008
- Public launch July 2009 at ISMB
- Funded by BBSRC
- Three years guaranteed funding
 - June 08 – May 11
- Sustainability guarantee by EMBL-EBI



experiment

<http://myexperiment.org>

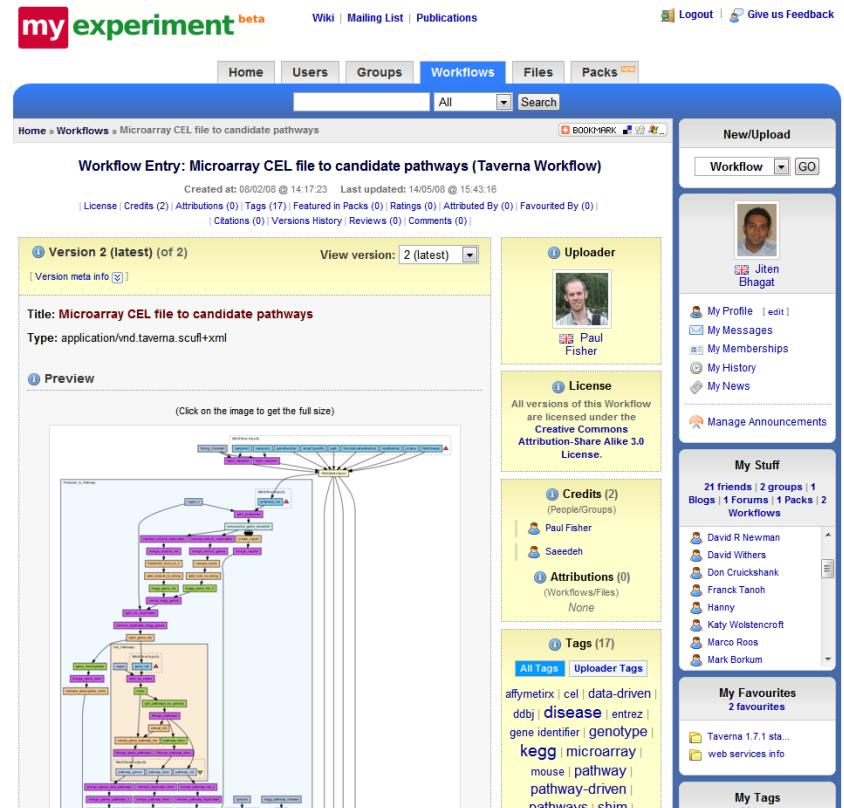
UNIVERSITY OF
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Web 2.0 environment for sharing
workflows and other research
assets


Crowd sourced content

Social curation of scientific
assets

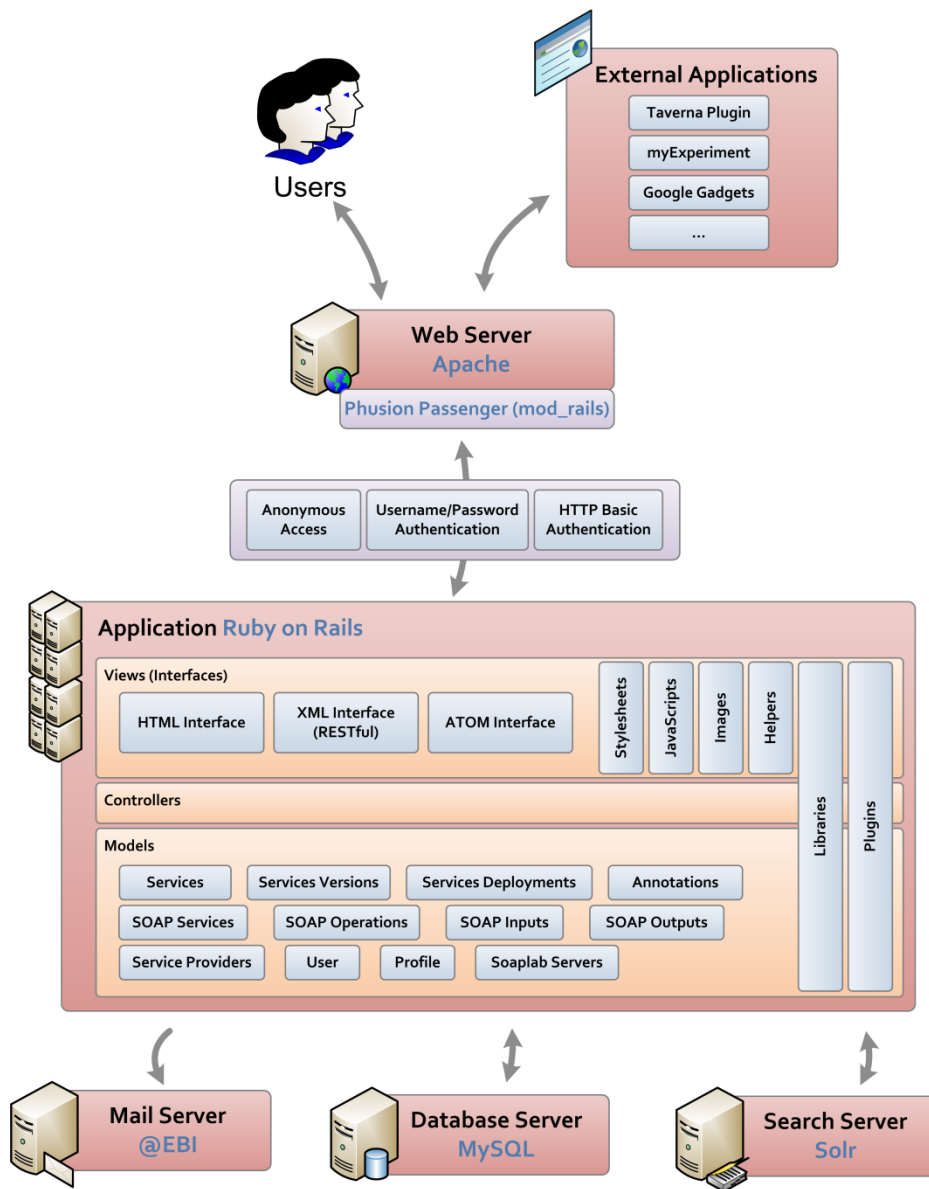
Socially share, discover and
reuse research assets



The screenshot shows the myexperiment.org website interface. The top navigation bar includes links for Home, Users, Groups, Workflows, Files, and Packs. The main content area displays a workflow entry titled "Workflow Entry: Microarray CEL file to candidate pathways (Taverna Workflow)". The entry includes metadata such as creation and update dates, and a list of tags including "affymetrix", "cel", "data-driven", "ddbj", "disease", "entrez", "gene identifier", "genotype", "kegg", "microarray", "mouse", "pathway", "pathway-driven", and "pathways". A preview of the Taverna workflow diagram is shown. The right sidebar contains user information for Jiten Bhagat, including a profile picture, a list of links (My Profile, My Messages, My Memberships, My History, My News), and a list of friends and groups.

- Built on Ruby on Rails 
- Open source (BSD license)
 - Source code hosted on RubyForge
 - Publicly available
- 2 core developers
 - 1 @ Manchester, 1@ EBI
- User driven design and development
- Agile and iterative





- iGoogle
- Facebook
- Taverna
- myExperiment
- ... and yours?



The screenshot displays the iGoogle Developer sandbox interface. At the top, there's a navigation bar with links like "Web", "Images", "Maps", "News", "Video", "Mail", and "more". The main area is titled "Welcome to the iGoogle Developer sandbox" and features several widgets:

- myGadget**: A list of gadgets including "BLASTP with simplified results returned", "keggID to Kegg pathways with Biolobby services", "Daily Dilbert", "conditional branch", "Example of a conditional execution workflow", "Get weather information", and "Get cities by country name".
- myExperiment Extension**: A section for "get_compounds_by_pathway" by Franck Tanoh, showing a workflow diagram and details like "Type: Taverna 1", "Description", "Components", "Inputs", "Processors", "Outputs", "Links", "Coordinates", and "Services".
- myExperiment Search**: A search interface for "myexperiment" showing 47 results for the query "pathway".
- myBioCatalogue**: A BioCatalogue widget with a search bar and a "Go!" button, displaying "1 services found for 'http://scap.genome.jp/KEGG.wadi'".
- myTaverna**: A Taverna workflow editor showing a workflow for "Get Cities by country name" with inputs, processors, and outputs.
- myPubMed**: A PubMed search interface showing results for "carole goble".

At the bottom, there are links for "Add a theme" and "Mobile - Advertising Programs - Business Solutions - Privacy Policy - Help - About Google".

Services	Instances and versioning	Identity management	RSS/ATOM
	BioMoby	Try it first	Ownership DAS

Users	notification	account management
	Internal messaging	

Curation	Curation tools	Level of curation	recommendations
	curators	ratings	

Monitoring	test scripts	QoS feeds	Feedback providers

Integration	Open Search	REST API	myExperiment
		Google gadget	Taverna

Content	More services	Policy identification	Provider engagement

- Join our friend's list:

www.biocatalogue.org/wiki

- Contact us:

contact@biocatalogue.org



Hamish McWilliams



Thomas Laurent

Eric Nzuobontane



Rodrigo Lopez

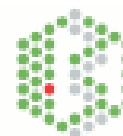


David De Roure



netherlands
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EMBL-EBI



UNIVERSITY OF
Southampton
School of Electronics
and Computer Science



Katy Wolstencroft



Carole Goble



Franck Tanoh



Jiten Bhagat



Steve Pettifer



Robert Stevens

Thank You