

# Building the Research Information Infrastructure

## **BRII project**

### **Technologies and approaches**

Ben O'Steen, Software Engineer - OULS

It all started with a  
simple question:

**“John Smith, Oxford University”**

*Useful information, but surely there is a way to find out more information about this **John Smith**?*

**Where** he works?

What **subject areas** he works in?

Who he **collaborates** with?

What **tools** he uses?

What **projects** he is part of?

# Why is this information important to an archive of research material?

- Write once, reuse many
  - Submitting an outcome from a research project?
    - We could pre-fill the form for you
  - Submitting a bid?
    - Find other people in the University who are or have researched similar topics
    - – people who may not be in the same department or even the same broad field
    - – and find the people they collaborated with, even if they were external to the University

# Why is this information important to an archive of research material?

- Serendipitous Searching
  - A 'More like this' that can actually be of use
  - Cross-domain search becomes a lot easier
  - Find research you may never have known existed

Modelling: Research  
information is heavily  
time-dependent

All change.

“Jane Doe” can  
become “Jane Smith”

“John Smith” can  
become “John  
Skywalker”

“Jane, Lecturer” can  
also be “Jane,  
Primary Investigator”

“Jane, Lecturer” can  
also be “Jane,  
Primary Investigator”

# Modelling Events with RDF

Instead of  
**“Jane is a Lecturer”**

We use  
**“Jane has a role of “Lecturer”,  
which she did from 2004-2008”**

# Modelling Events with RDF

Instead of

**“This person is called Jane”**

We use

**“This person had a birthname of  
Jane and has personal details  
\*here\*”**

# RDF Vocab (Ontologies)

- Aims:
  - Reuse, rather than reinvent
    - AIISO (<http://vocab.org/aiiso>)
    - AIISO-roles (<http://vocab.org/aiiso-roles>)
    - Participation (<http://vocab.org/participation>)
    - SIOC (<http://sioc-project.org/ontology>)
    - FOAF (<http://xmlns.com/foaf/spec/>)
    - DOAP (<http://trac.usefulinc.com/doap>)
    - SKOS ()
    - dc, dcterms
    - And so on...

# RDF Vocab (Ontologies)

- Aims:
  - Where we can't reuse, we reinvent in a conscientious way
    - [vocab.ouls.ox.ac.uk](http://vocab.ouls.ox.ac.uk) – for publishing vocabularies, and taxonomies. (Not restricted to RDFS and SKOS!)

# Live examples

Let's see some...