



dataset acquisition
accessibility & annotation
e-research technologies

AA2 Secure Annotation Services

Imran Khan





Overview

- What are we doing?
 - *“Improve rates of annotation by allowing end-user control over who can annotate what and who can access the annotations”*
- How are we doing it?
 - Modify Annotea (W3C) to allow Shibboleth (Internet2) integration
 - Build tools to define access constraints using XACML (OASIS) policies

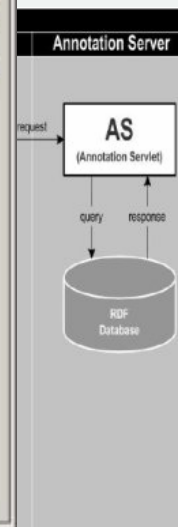
Objectives

- What outcomes?
 - ‘Show’ Annotations
 - Client annotation viewer
 - metadata

The screenshot shows a Microsoft Internet Explorer browser window displaying the ePrintsUQ website. The address bar shows the URL: <http://eprint.uq.edu.au/archive/00/00/06/01/>. The page header includes 'THE UNIVERSITY OF QUEENSLAND AUSTRALIA' and 'UQ Library'. The main content area is titled 'ePrintsUQ' and features the article 'Income Inequality and Health: A Multi-Country Analysis' by Asafu-Adjaye, John (2004). The abstract states: 'This paper investigates the effect of income inequality on health status. A model of health status was specified in which the main variables were income level, income inequality, the level of savings and the level of education. The model was estimated using a panel data set for 44 countries covering six time periods. The results indicate that income inequality (measured by the Gini coefficient) has a significant effect on health status when we control for the levels of income, savings and education. The relationship is consistent regardless of the specification of health status and income. Thus, the study results provide some empirical support for the income inequality hypothesis.'

On the left side of the browser window, there is a sidebar with a tree view of annotations and policies. The 'POLICIES' section is expanded to show 'DART Group (unknown)' and 'GROUPS'. Under 'GROUPS', there are 'uq_members' and 'nonash_members', each with a 'RULES' section. The 'uq_members' rules include 'READ is Permitted', 'LIST is Permitted', and 'READPOLICY is Permitted'. Below the policy tree is a table with columns 'Attribute', 'Function', 'Value', and 'Issuer'.

Attribute	Function	Value	Issuer
eduPersonOg/NI	string-equal	lee	uq.edu.au
eduPersonOg/In/NI	string-equal	dke	uq.edu.au
eduPerson/Id/alias	string-equal	staff	uq.edu.au





Benefits

- Knowledge capture of the community, domain experts, etc.
- Provides necessary framework for a number of other work packages (AA1, AA3)
- Provides easy Web access to annotation repository over HTTP for searching, retrieval, uploading annotations
- Provides highly flexible RDF data model (ontologies, adding other namespaces, triples, domain independent, etc.)
- Annotations are **separate** from content
- Annotation can be either centralized or distributed (multiple servers)



Synergies

- Inside DART:
 - AA2 has direct relationships with:
 - AA1 Annotation of Scientific data sets (3-D crystallographic data models)
 - AA3 Collaborative Annotation of data sets
- Outside DART:
 - Australian National Library (OAI-PMH)



Current DART Application

- Provides the annotation framework for both front-end and back-end of AA1 – AA3

Future DART Application (in about 1month)

- Same as now



Future DART Application (in about 3months)

- Integration of an OAI-PMH interface to annotation server
 - Open Archive Initiative Protocol for Metadata Harvesting
 - Provides a way for content providers such as the Australian National Library to retrieve metadata
- Usability Testing



Future DART/ARCHER Applications

- Integration of an OAI-PMH interface to annotation server
 - Open Archive Initiative Protocol for Metadata Harvesting
 - Provides a way for content providers such as the Australian National Library to retrieve metadata



Issues

- Secure aspect dependent on Shibboleth Federation
- Much of the client side is Internet Explorer or Windows platform specific
- Consideration of OAI-PMH data mapping with Annotea
- Scalability of current Annotea server implementation (Jena API and MySQL)
- How to encourage active adoption of technology?
- Encouraging users to adopt technology
 - Promotion?
 - User interface? (thorough usability testing)
 - Push benefits