Fedora and Triplestores

• • •

Aaron Coburn - Amherst College

Outline

Triplestores & SPARQL

Integrating an external triplestore via Camel

Discussion & questions

Some initial distinctions

Fedora

An object repository

The central concept is the Resource

Uses RDF to describe resources

Uses RDF to express relationships
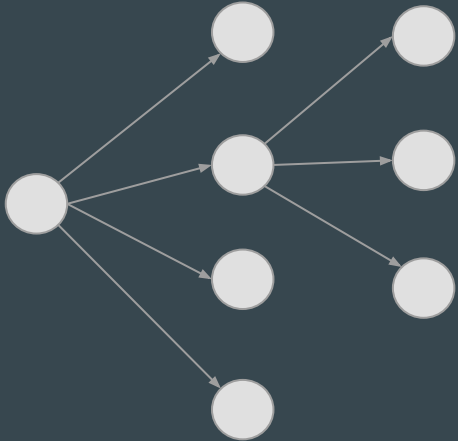
Triplestore

An RDF database

The central concept is the RDF Triple
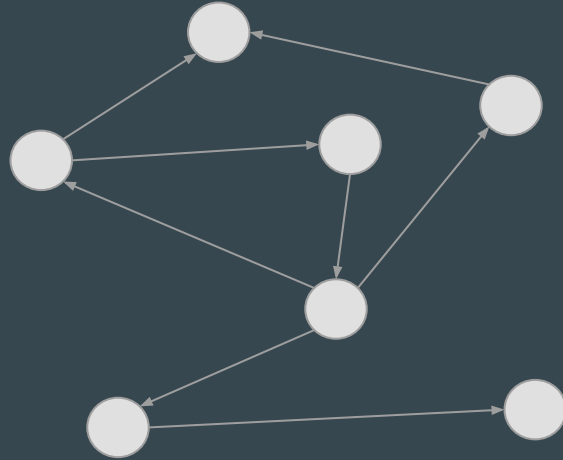
Supports arbitrary RDF and queries

Blank nodes, named graphs, inference

RDF graphs

Fedora: pointed graphs

Triplestores: arbitrary graphs

Query interface

Fedora: key-value

```
GET /manuscript1 HTTP/1.1
```

Triplestores: SPARQL

```
SELECT * WHERE {

    ?obj rdf:type yale:Manuscript .

    repo:coll4 pcdm:hasMember ?obj .

}
```

Asynchronous integration

Fedora4 has no internal triplestore

Integrating an external index with Camel

Message-based pattern

Camel is an integration framework

Designed to connect different applications

Connecting Fedora with a triplestore is only one example

`fcrepo-camel-toolbox` also includes:

serialize objects to disk (e.g. for preservation workflows)

index to Solr

check fixity of resources

record audit (`premis`) events

Questions

Aaron Coburn

acoburn@amherst.edu