Data Service Infrastructure for the Social Sciences and Humanities

Workpackage 2

John Shepherdson
June 2014, IASSIST 40
Task 2.2: Reference Architecture
Goal

“To create a common understanding among RI stakeholders on infrastructure and its components in terms of responsibility, functionality, quality and terminology and to guide them where resources can be harmonized and shared and where differentiation needs to be maintained.”
Reference Architecture

From: Gerrit Muller – A Reference Architecture Primer (http://gaudisite.nl)
Pattern Pending

- **State of the Architectures report** found ‘little commonality between the infrastructures’
- No common patterns to extract
  => no foundation to build on
- Alternative?
  - Explore Reference Model approach
Architecture, What Architecture?

- **architecture** - fundamental concepts or properties of a system in its environment embodied in its elements, relationships, and in the principles of its design and evolution [ISO/IEC/IEEE 42010:2011].

- **architecture framework** - conventions, principles and practices for the description of architectures established within a specific domain of application and/or community of stakeholders [ISO/IEC/IEEE 42010:2011].

- **enterprise architecture** - an architecture in which the system in question is the whole enterprise, especially the business processes, technologies, and information systems of the enterprise [Sessions].

- **reference model** - *an abstract framework for understanding significant relationships among the entities of some environment* [SOA-RM].

- **reference architecture** - models the abstract elements in the domain of interest independent of the technologies, protocols, and products that are used to implement a specific solution for the domain [SOA-RAF].
ENVRI Envy

- ENVRI (Environmental Research Infrastructure) developed own Reference Model based on ODP-RM:A
- DASISH/ENVRI meeting at UKDA March 2014
  - Many similarities
  - Notable differences too
ODP Viewpoints

• Enterprise
  – Objectives, scope and policies of the business (science) to be carried out

• Information
  – A model of the shared information to be managed

• Computational
  – Functionalities, the processes and applications to be performed

• Engineering
  – Infrastructure to support system distribution

• Technology
  – Mapping to real hardware, software and communication resources
ODP 5 viewpoints can be related to software engineering processes

(Source: ‘Tutorial in ODP - Part1 Understanding ODP’, Yin Chen, ENVRI)
Sprint

• Den Haag May/June 2014 – 5 days
  – Maarten Hoogerwerf, Mike Priddy (DANS); Timo Gnadt (Göttingen State and University Library); Johan Finn (SND); John Shepherdson (UKDA)
• Drafted Reference Model:
  • Viewpoints
    – Enterprise, Information, Computation
  • Communities
    – Acquisition, Management, Publication, Service, Support
• Model Subsystems
  – Acquisition, Management, Access, Processing, Community Support
Next Steps

• Series of mini-sprints
  – Complete Viewpoints, Communities, Model Subsystems etc
• Discuss with members of CESSDA, CLARIN, DARIAH, ESS, SHARE
• Refine (based on feedback) and publish
Task 2.3: TeRESAH
TeRESAH (Tools E-Registry for E-Social science, Arts and Humanities)

- cross-community tools knowledge registry for researchers in the Social Sciences and Humanities (SSH)
- contains information about tools, services, methodologies, and current standards
- makes use of social media for dissemination and discussions
2d graphic design Browse by Keyword

Tools from 1 to 8 on 8 available

Adobe Illustrator
Adobe Illustrator is a comprehensive vector graphics environment that is ideal for all creative professionals, including web and interactive...

Adobe InDesign
InDesign is a desktop publishing (DTP) software application which can be used to create periodical publications, posters, flyers, brochures,...

Adobe Pagemaker
PageMaker was the first desktop publishing (DTP) program, introduced in 1985. The last version is PageMaker 7.0 released in July 2001. In 2...

Adobe Photoshop
Adobe Photoshop is an editor for still images. It is equipped with a diverse range of processing tools, enabling users to create or modify c...

Mercury Amira
Mercury Amira is a multifaceted tool that allows for integration, manipulation, and visualisation of large sets of data. Automatic and Inter...

OpendTect
A software application for analysing and visualising multi-volume seismic data. OpendTect may be used to analyse 2D, 3D and 4D pre- and post...
OpendTect

ArtsHumanities

Source: http://www.arts-humanities.net/tools/opendtect

A software application for analysing and visualising multi-volume seismic data. OpendTect may be used to analyse 2D, 3D and 4D pre- and post-stack seismic data.

Keywords

- Cost: Other
- Data capture: Geophysical Survey
- Data enhancement: Graphical Rendering
- Lifecycle: Creation Analysis
- Practice: 3D Graphic Design, 2D Graphic Design
- Specifications: Open Graphics Library (OpenGL)
- Tags: Archaeology, Seismic, Seismic Geography

Details

- Tool Type: Visualization
- Licence: GNU GPL
- Licence Type: GNU General Public License
- Homepage: http://opendtect.org/index.php
- Platform(s): osX, Windows, Other, Linux
- Developer(s): OpendTect project
- Similar tools: Adobe Photoshop, RivEx
• Design Considerations
  – What is a tool?
  – Tools for whom?
  – What to include, how to harvest?
  – How to deliver content?
  – How to QA it?
• Key Design Decisions
  • Data model
  • RDF/Sparql end-point
  • Restful API
  • AngularJS User Interface
User Interface

- Supports Auth/Auth
- Self-generated faceted search/browse
- Responsive and fast
- Cross-browser compatible
One click edits (Content Managers)
Faceted search (Users)
Admin interface (Administrators)
Any Questions?