



# **Towards Interoperability fostering Partnerships Across Oceans of Information**

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## **What is the Arts and Humanities Data Service?**

## **AHDS and ECAI: an agenda for collaboration**

## **Interoperability for Archaeology**

## **Interoperability in the Arts and Humanities Data Service**

## **Interoperability – some thoughts for AHDS and ECAI**

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## **Aims and Objectives**

To collect, catalogue, preserve and encourage the re-use of digital research data created by UK-Based academics funded from UK research grants

**The AHDS is jointly funded by**

Joint Information  
Systems Committee

A · H · R · B  
arts and humanities research board



## The main activities of the **AHDS** are:

**D**igital archiving

**E**nabling access to existing data via  
the Internet

**E**ncouraging and describing good  
practice in IT



## The **AHDS** works on behalf of:

**R**esearch community

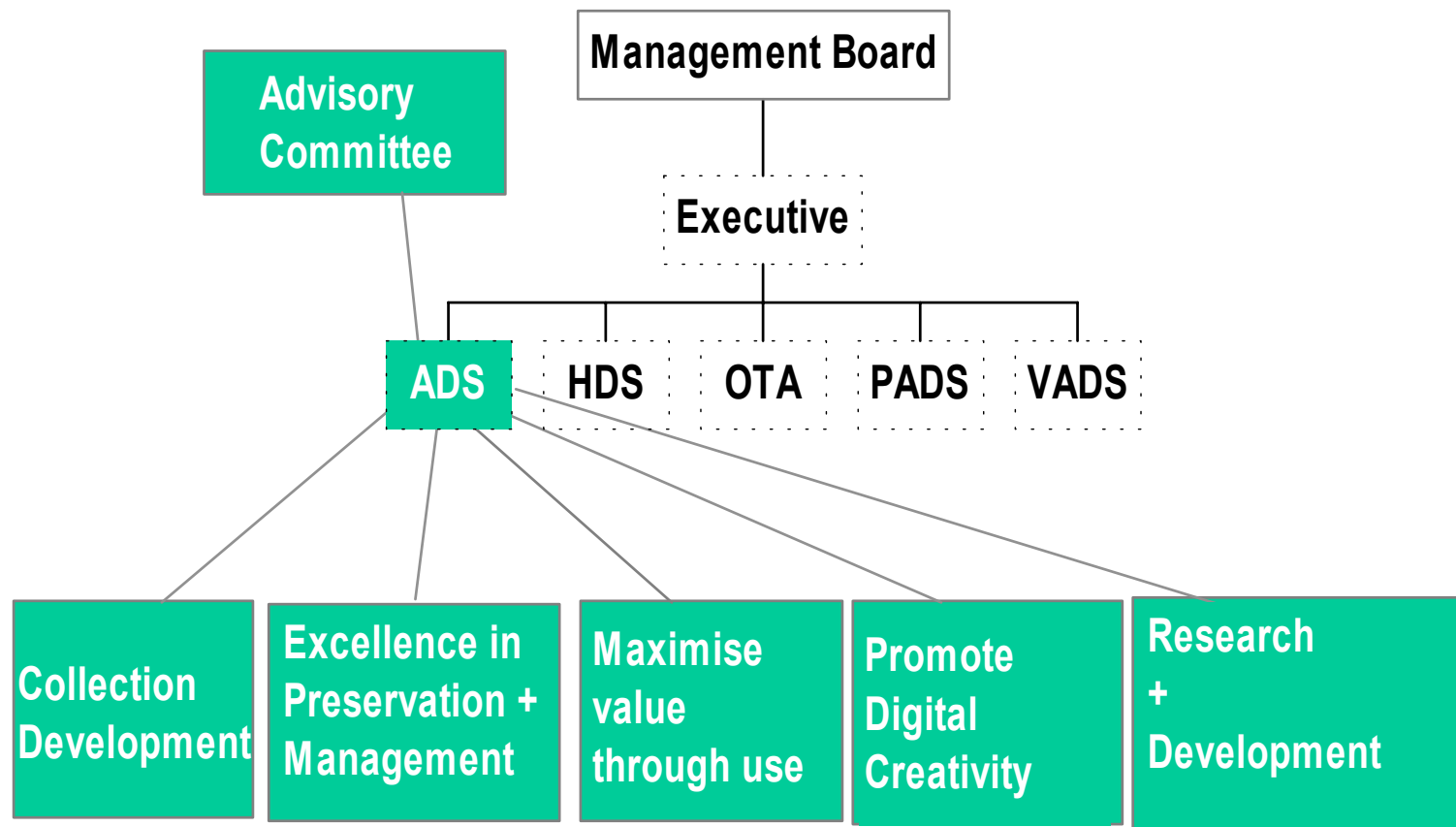
**T**eaching community

**L**earning community

... in the UK Arts and Humanities

**These communities seek access to global data, therefore the **AHDS** has a global task!**





# **ECAI and the AHDS: an agenda for collaboration**

If you haven't already noticed ...  
...AHDS, PNC and ECAI share common goals



# **ECAI and the AHDS: memorandum of understanding**

Guides to Good Practice

Standards

Supporting ECAI-BI Team

Training and communications

E-publishing

Digital Preservation Focus

➔ Interoperability of data sets





**Why should data providers think about interoperability?**

**Question: how do you get what you want as a researcher / data provider**

**Premise: There is too much information in the world already!**



**Answer: focus on interoperability**



## Interoperability in Archaeology

**A user wants information about Westerwood, where there is a Roman fort and a stretch of the Antonine wall near Glasgow**

**They could go to Goggle and find some information on the site ... and a lot else besides!**

**... this data is not authoritative, is incomplete, is unstable, and may be out of date**



## Interoperability 1 – the ADS

**Alternatively the user could go to Canmore,  
the online catalogue of the National  
Monuments Record of Scotland**

**[www.rcahms.gov.uk](http://www.rcahms.gov.uk)**



ABOUT RCAHMS

NMRS SERVICES

CANMORE

EXHIBITION

WHATS NEW?

CONTACT

WELCOME TO THE ROYAL COMMISSION  
on the ANCIENT and HISTORICAL MONUMENTS  
of SCOTLAND



# Interop 1 – the ADS

... or the user could have gone to the online catalogue of SCRAN and searched for Westerwood

www.scran.ac.uk





The screenshot shows the SCRAN website homepage. At the top, there is a navigation bar with the URL www.scran.ac.uk, a 'welcome' message, and a 'help' button. Below this, there are several sections: 'SCRAN SEARCH' with options for 'quick assisted' and 'curriculum navigator'; 'OTHER AREAS' with links for 'pathfinder', 'links', 'education', 'projects', 'info', and 'friends'; and 'MEMBERS' LOGIN' with fields for 'Username' and 'Password' and a 'LOGIN' button. A central image shows two figures sitting on a bench. To the right of the image, there are several text blocks: 'Preserving the Past, Framing the Future.', 'Today's Topic: On this day in 1838, John Muir, pioneering conservationist and founder of Yosemite National Park in the USA, was born.', 'Pathfinder on John Muir', 'Environmental Saviour', 'SCRAN has over half a million pages of history and culture with photos, objects, art, movies and audio. It is free to search and see thumbnails. Click Quick on the sidebar at left to search. Use Help for advice.', 'Get a preview of our new website, due to be launched in May.', 'Check our award winning CD-ROM titles.', 'Education', 'News', 'Pathfinders', 'Licences', 'Help', and 'Contact'. At the bottom, there are logos for 'photo competition', 'frieze of time', 'NGfL', and 'A Millennium Commission Lottery Project'.

# Interoperability 1 – the ADS

... and and  
found  
pictures of  
the Antonine  
wall and  
aerial  
photographs  
of the fort



 [www.scran.ac.uk](http://www.scran.ac.uk) *match for search* 


**SCRAN SEARCH**  
quick | curriculum  
assisted | navigator

**OTHER AREAS**  
pathfinder | links  
education | projects  
info | friends  
**SCRAN HOME**


Number of hits retrieved:5 Records 1 to 5


Page: 1

[text view](#)

  
Antonine Wall: Dullatur (General view)

  
Fort at Westerwood, North Lanarkshire Roman, 2nd century AD

  
Fort at Westerwood, North Lanarkshire Roman, 2nd century AD

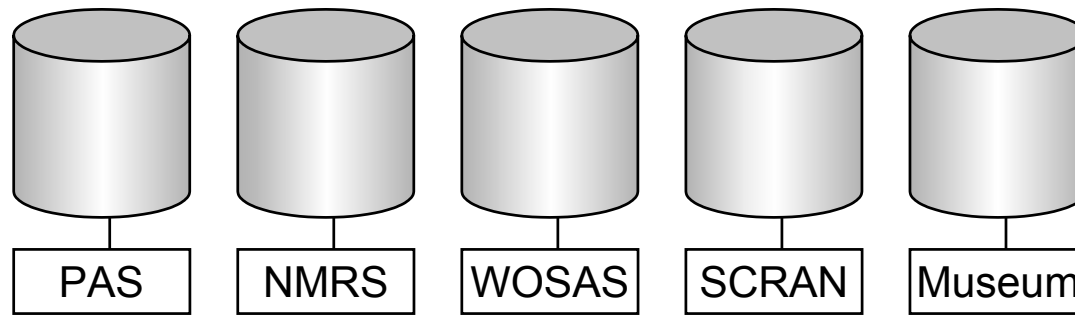
  
Fort at Westerwood, North Lanarkshire Roman, 2nd century AD

## Interoperability 1 – the ADS

- Or they could have gone to the West of Scotland Archaeology Service SMR ([www.wosas.org.uk](http://www.wosas.org.uk))
- Or they could have gone to the Hunterian Museum at Glasgow University where the Romans in Scotland are listed ([www.gla.ac.uk/museum](http://www.gla.ac.uk/museum))
- Or they could go to Portable Antiquities scheme to find any metal detector finds ([www.finds.org.uk](http://www.finds.org.uk))
- Or Cornucopia ([www.cornucopia.org.uk](http://www.cornucopia.org.uk))



## Interoperability 1 – the ADS



**Data providers shouting louder and louder about their web sites**

**(tired and disappointed)**

**Current services offer mix of discover, access and use functionality**

**End-user needs to join services together manually – and learn multiple interfaces**

**End-user (tired and confused)**



# Doing serial searches like this is **boring and unnecessary**

- slows down the user
- reduces impact of data sets
- makes tracking changes impossible
- result of poor information architecture





# Interoperability!

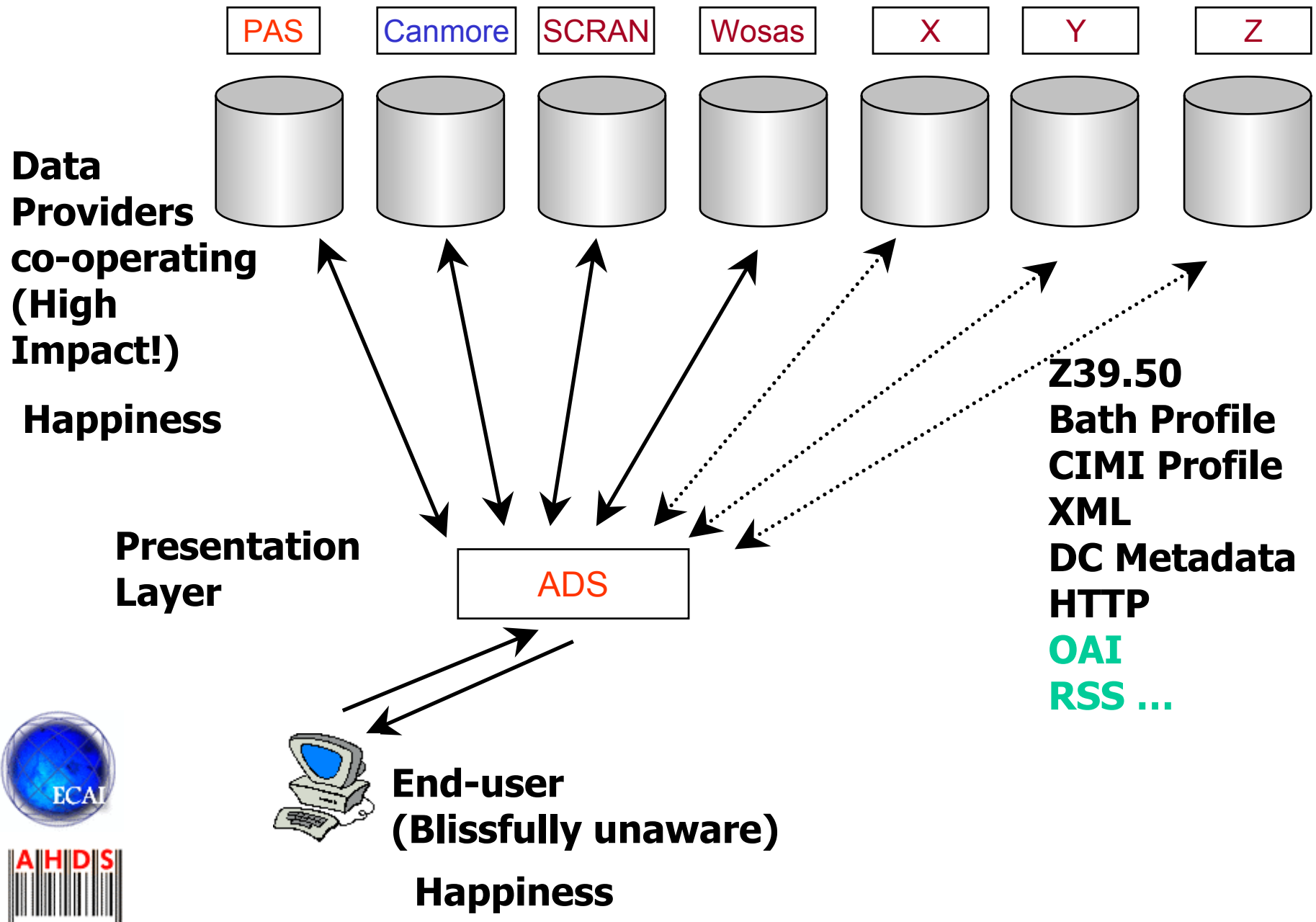
introducing... **ArchSearch**  
an *interoperating* portal from the ADS  
<http://ads.ahds.ac.uk/catalogue/>

Different databases are presented as a single entity

The machines do the talking and the combining not us



# Interoperability 1 – the ADS



# But it's not as simple as that...

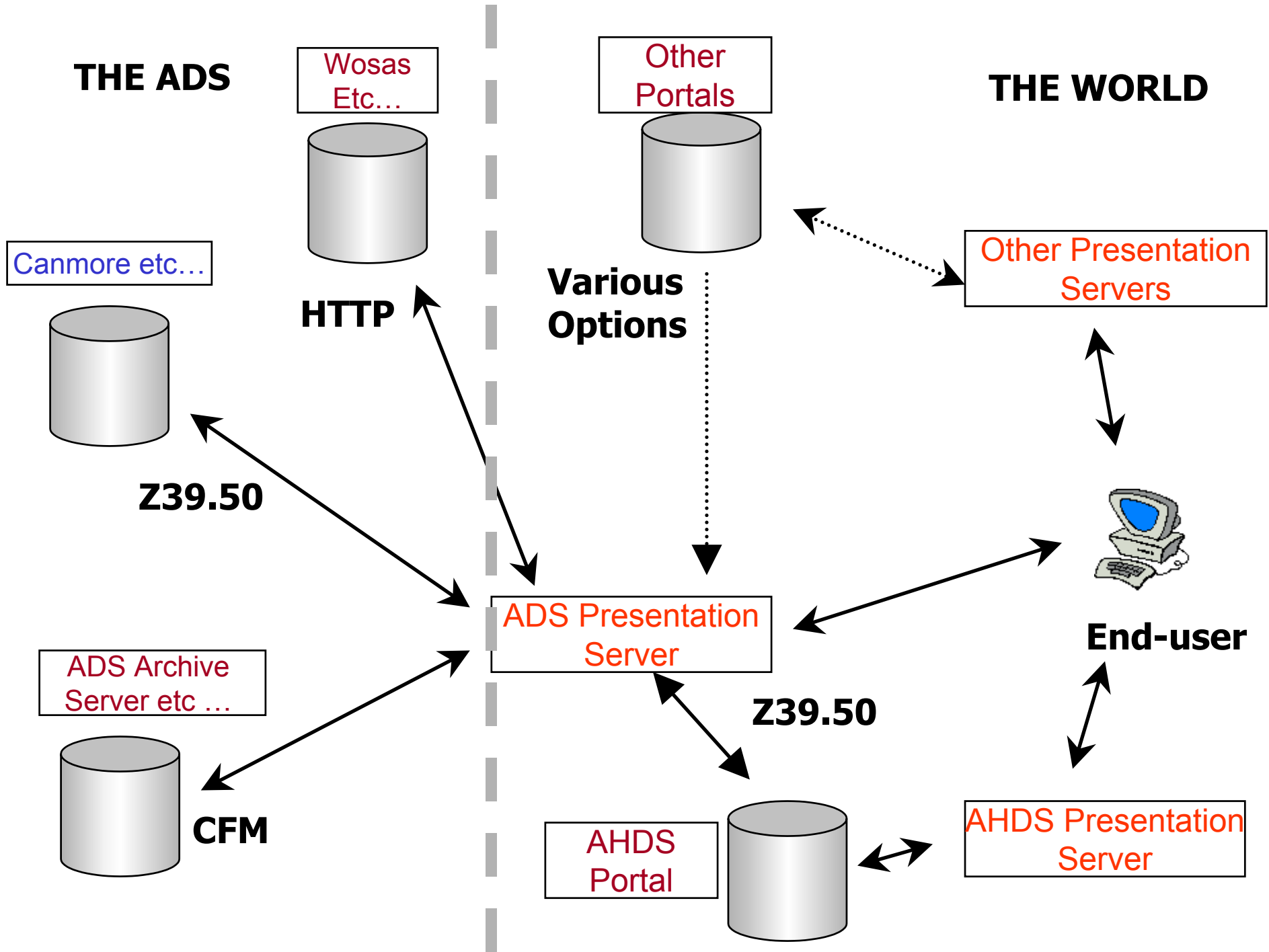
Different types of linkage required for different data sets

Different types of information can be exchanged

Different presentation layers are possible (to be encouraged?)

Standards, standards, standards ...





# It's not as simple as that!

The ADS is part of the AHDS

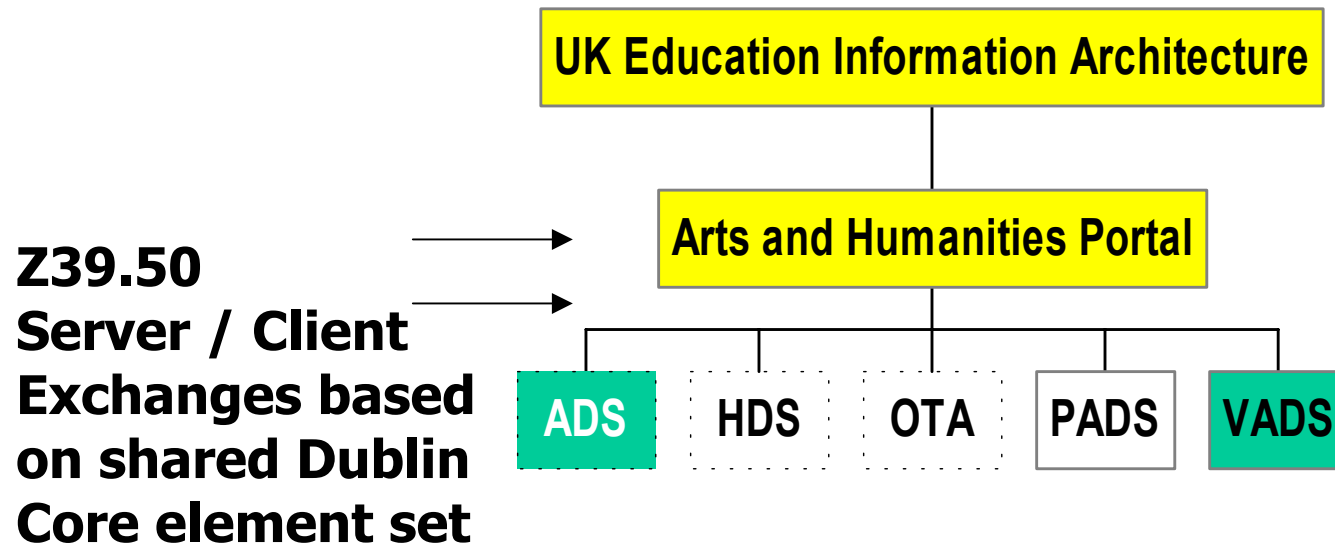
Different types of information may be exchanged

Different techniques will be needed for different operations

Different presentations will be needed for different communities



# Original AHDS Architecture



# It wasn't as simple as that!

Subtle differences in DC implementation

Result - proof of concept

BUT - difficult to roll out to users

SO – time to tinker with architecture

ALSO – new tools now available (XML? OAI?)



# Challenges to the AHDS Portal

This is still only schematic

New layers in the architecture

XML work to be done (with ECAI?)

English Language dominates

Other middleware services involved too

What about the users?





# ADS, AHDS and ECAI: platforms for collaboration

ADS mixed economy portal alive already

AHDS “plug and play portal” soon

ECAI Clearing House

Connecting our different systems together

AHDS needs to work on time and space

ECAI needs m2m connections



# It may not be simple ...

AHDS licensing regime

AHDS meets TimeMap

AHDS responsive to external pressures

Language

What else does AHDS have to do?



**... but a great deal is possible  
in a short time...**

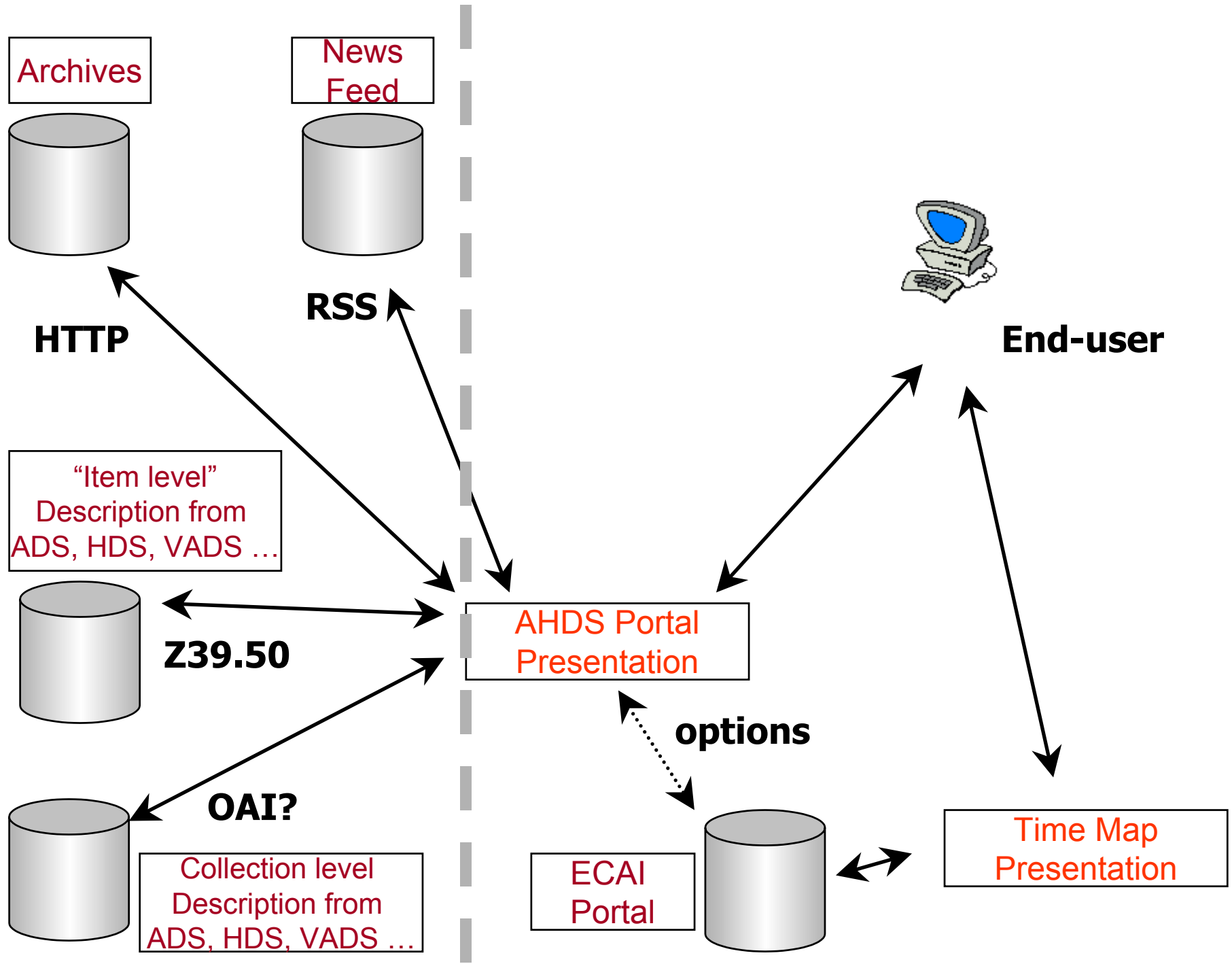
ADS Z39.50 server (codename "HEIRPort") –  
pilot project for linking?

We don't need to sort out language just yet?

Mutual benefits now

Long term gain also?





# **In Conclusion therefore**

AHDS, ECAI and many of the people here share common goals

We can share expertise and knowledge

We can also share data

Pilot Project?

Interoperability is a process not an event

Let's keep the momentum going!



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