Five Year Plan

April 2013 - March 2018

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Introduction

This document outlines the strategic aims of ADS for the next five years and sets out the objectives needed to achieve them. Those activities for 2013-14 are prioritised in the workplan. This will be reviewed and updated at meetings of the ADS Management Committee to assess progress against these objectives.

History

The UK's Archaeology Data Service was established in 1996 as one of the five discipline-based service providers making up the Arts and Humanities Data Service (AHDS). It is hosted by the University of York. It began with two members of staff, but now has fifteen.

Unlike the other former AHDS services, the ADS established a role which bridges the academic and professional archaeological sectors, reflecting the fact that there is an equivalent need for digital preservation support outside academia, and that much data which has tremendous value for archaeological research in universities is created outside the academic sector. Core funding, provided (via AHDS) by JISC and AHRC until 2008, allowed the free provision of advice and preservation services for those employed in Higher Education Institutions, whilst ADS developed a charging policy to cover the costs of preservation of research data funded by other bodies. With the withdrawal of AHRC and JISC funding from AHDS, AHRC support for ADS was maintained from 2008-13, in recognition of the importance of the primary data sets it preserves, and its ability to generate other revenue streams.

The ADS is the mandated place of deposit for archaeological research data for a number of research councils and heritage organisations and makes all its holdings freely available for download or online research. At the last count it provides access to over 1.1 million metadata records for the archaeology of the British Isles, over 18,000 unpublished fieldwork reports (the so-called grey literature) and over 500 data rich digital archives. All reports and archives are allocated a permanent means of citation, or Digital Object Identifier, in collaboration with the British Library and Datacite. Its online services include the e-journal *Internet Archaeology*, the first online peer-reviewed journal for Archaeology.

The ADS and Internet Archaeology have been awarded two British Archaeological Awards for Best Archaeological Innovation, in 2008 for the LEAP project, and in 2012 for the Grey Literature Library. In 2011 the ADS was awarded the Data Seal of Approval, an internationally recognised standard for trusted digital repositories, making it the second only UK repository to receive this accreditation, after the UK Data Archive. In 2012 it was awarded the Digital Preservation Coalition's Decennial Award for the most outstanding contribution to digital preservation over the last decade.

External Environment

The heritage sector as a whole is likely to continue to face a difficult operating environment for the next two-three years, and possibly longer. Investment in transport infrastructure may provide additional employment for some field archaeologists but overall the economy remains in recession. With public sector cuts and pressure on local government archaeologists and contractors, there is a high risk of data loss, and less funding available. Museums are under particular pressure with many unable to accept additional archives. The instability within other UK heritage bodies makes partnership and planning for collaboration difficult and threatens established relationships, at an institutional and personal level. In the university sector there have also been casualties and closed departments.

On the other hand there are opportunities for data recovery and rescue operations and for efficiency gains through shared facilities. There are also opportunities to work with the museum sector, particularly through the greater integration of information flow to museums through the redevelopment of the OASIS online event recording form. In the academic sector there is also a renewed emphasis on digital preservation, as well as encouragement to cite datasets and link to publications. In April 2011, the Engineering & Physical Sciences Research Council (EPSRC) set out its research data management expectations for institutions in receipt of EPSRC grant funding, which included the development of an institutional 'Roadmap'. Most universities are now grappling with the challenge of setting up an Institutional Repository. The ADS needs to emphasise the added value and impact that follows from data aggregation and re-use in a discipline-focused data archive, as well as the risk of consigning data to dark archives. The results of the 2012-13 JISC-funded Impact project are helpful here in highlighting the economic impact of the ADS. We will need to work with universities to encourage them to 'outsource' the long term access and preservation for the archaeological research data produced by their academics, whilst enabling universities to harvest an index record of this research data so that an institutional view can also be maintained. In a rapidly changing publishing environment we need to be alert to the impact of the Open Access movement and must work with publishers to encourage authors to deposit supporting data with ADS and to link to it from their articles. Closer integration with *Internet Archaeology* provides a great opportunity with regard to the changing landscape and RCUK Open Access policy. The ADS is well placed to act as an exemplar for other disciplines in the field of digital preservation and access.

With continued difficulties in the UK market international collaboration will be key to financial sustainability. Having built up an extensive network of European and North American collaborators ADS is well placed to take advantage of funding opportunities as they arise. The upcoming European Commission Horizon 2020 programme, which replaces FP7, has little emphasis on heritage but there will be opportunities in ICT, and e-infrastructures. We must also seek to archive a much higher proportion of the outputs of commercial archaeology in the UK and collaborate with others to develop new forms of publication. The Open Data movement may prove to be influential here. We need to be alert for new means of access and position the ADS to deliver Open Linked Data if it transpires that the Semantic Web vision is gaining traction.

From April 2013 onwards ADS must operate entirely within a project funding environment. It must maintain a wide range of partners and funders as well as develop and streamline core archiving capacity to address the needs of development-led commercial archaeology. Having developed a broad funding base and invested in a robust and extensible hardware and software infrastructure over the last five years, and introduced a number of areas of automation in collection ingest and web delivery, we are now well-placed to meet the challenges of the next five years.

Strategic Aims and objectives

(1) To provide **preservation services** for primary data and digital resources created in the course of research in archaeology and related disciplines, following relevant standards for trusted digital repositories, and to continue to **collect high quality data** sets.

(2) To provide **advice to researchers and funding bodies** on the creation, dissemination, documentation, and preservation of digital resources created in the course of research in archaeology and related disciplines.

(3) To work with others to **develop and implement agreed standards** to ensure appropriate documentation and preservation of digital resources created in the course of research in archaeology and related disciplines.

(4) To provide **open and easy online access** to primary data and digital resources created in the course of research in archaeology and related disciplines, either as downloadable datasets or through online interfaces which allow users to interrogate key data sets online.

(5) To provide **encouragement and support for the re-use** of primary data and digital resources created in the course of research in archaeology and related disciplines.

(6) To provide appropriate **finding aids and resource discovery** mechanisms to allow users to discover primary data and digital resources created in the course of research in archaeology and related disciplines.

(7) To undertake **research and development** into preservation, access and interoperability, with a view to enhancing all the above services.

(8) To maintain **effective service management and administration** in pursuit of the above objectives, and develop and implement cost models appropriate to higher education, public and commercial archaeology sectors.

These eight objectives reflect the areas of activity which provide core functions for ADS, and can be cross-referenced to the annual workplans and reports. Underpinning all is the need to provide overall financial sustainability, and to demonstrate the interplay of different sources of funding and how the support of funding in one area may provide added value for another funding body.

The five year plan below defines key priorities for each of these eight areas of activity.

1.   Preservation Services and Collections Development

Objectives

- To provide professional digital archiving services based on the OAIS reference model
- To manage collections to agreed standards and according to agreed processes and procedures
- To encourage deposition of high quality digital resources in support of learning, teaching and research in archaeology and the historic environment sector

Tasks/Deliverables

1.1   Work with English Heritage to ensure long term preservation of digital outputs of its funded programmes

1.2   Work with AHRC & NERC to archive digital outputs of funding programmes

1.3   Work with local government archaeologists, museums and contract units to establish procedures for archiving of development-led archaeology

1.4   Maintain and enhance the Collections Management System database

1.5   Maintain secure offline and remote storage in collaboration with UKDA

1.6   Maintain a preservation watch on relevant software/hardware changes

1.7   Keep ADS internal policies and procedures for archiving up-to-date

1.8   Maintain the ADS server cluster to ensure a robust and reliable service

Priorities for 2013-14

1.9   Embed ADS-EASY within standard information flow and archive deposit

1.10   Plan for ISO accreditation of ADS as a trusted digital repository and seek Data Seal of Approval renewal

1.11   Work with CBA and others to extend collections of back-runs of UK archaeology journals

1.12   Work with university repositories to provide archiving services for archaeological data

1.13   Aim to increase grey literature library to over 22,000 reports

1.14   Increase number of papers published in *Internet Archaeology* through greater use of online systems and development of the CMS to aid editorial workflow

1.15   Work with BABAO and others to investigate preservation and delivery of specialist grey literature

1.16   Work with the museum sector to increase deposit of digital archives

2. Providing advice to data creators and funders

Objective

To support the creation of high quality digital resources by providing advice and training to data creators and depositors on standards and best practice in data creation

Tasks/Deliverables

2.1   Provide advice on best practice, and assistance to data creators and depositors

2.2   Provide end-user support via email help desk and web documentation

2.3   Maintain the online Guides to Good Practice, in partnership with Digital Antiquity

Priorities for 2013-14

2.4   Add European case studies to the Guides with ARIADNE partners

2.5   Investigate incorporating Data Management Planning within IfA RAO validation

2.6   Consider application to HLF for training/support of community groups in use of OASIS and upload of grey literature

3.   Developing and implementing standards

Objective

To work with other information providers in the UK and overseas to maintain and develop standards

Tasks/Deliverables

3.1   Work within the Archaeological Archives Forum to promote digital archives standards

3.2   Maintain involvement with FISH and HEIRNET

3.3   Maintain involvement in Research Data Management Forum, Network of Centres and Digital Preservation Coalition on shared policies and procedures as appropriate

Priorities for 2013-14

3.4   Work with the Bedern Group to develop shared preservation policies and services amongst UK archaeological archives

3.5   Work with the ARCHES group on European archive standards

3.6   Work with ARIADNE partners on standards and terminology control

4. Providing access to data

Objectives

- To maintain and enhance existing systems and ensure that resources continue to be available for use
- To better understand the usage of ADS collections
- To develop ADS role as broker for information resources
- To embed *Internet Archaeology* as the publishing wing of ADS and move to a fully Open Access model

Tasks/Deliverables

4.1 Maintain ArchSearch III and keep the need for further redesign of the website under review

4.2 Introduce new access statistics logging and analyse registered user data to gain better information on ADS usage

Priorities for 2013-14

4.3 Roll-out ArchSearch III.5 enhancements, viz:

1. Better integration of external services

2. Working implementation of Wordcloud

3. Better alignment of Archives facets and Archsearch facetted browse

4. Enhanced grey literature search interface

5. Richer Solr indexing within special collections

6. Enhance range of tools available to registered users

4.4 Work with British Library and others to develop interfaces to ADS resources for mobile devices

4.5 Provide Piwik statistics for each archive and *Internet Archaeology* article

4.6 Upgrade Java6 and Glassfish2

4.7 Develop a range of exemplars of data publications, including *Internet Archaeology* data papers and digital monograph series

4.8 Work with external publishers to link to ADS datasets from traditional articles

4.9 Encourage *Internet Archaeology* authors to deposit their datasets in ADS

5.   Providing support and encouragement for re-use

Objectives

- To ensure that relevant communities are aware of the services and content provided by the ADS
- To encourage use of ADS resources and services

Tasks/Deliverables

5.1   Maintain helpdesk

5.2   Maintain and update database of contacts

5.3   Implement ADS Communications Strategy (see separate document)

Priorities for 2013-14

5.4   Develop programme of site visits and user consultation

5.5   Publish ADS News in hardcopy once per year with quarterly email editions

5.6   Monitor usage of collections

5.7   Consider sponsorship/prizes for Open Access and re-use case studies for publication in *Internet Archaeology*

5.8   Develop training videos for data deposit and re-use

5.9   Develop greater integration of ADS/*Internet Archaeology* Communications strategies

6.   **Facilitating Resource Discovery and interoperability**

Objective

To ensure resources are discoverable through a number of routes

Tasks/Deliverables

6.1   Develop further web services for metadata for ADS collections

6.2   Maintain supply of data to MEDIN portal

6.3   Maintain supply of data to NERC's Data Catalogue Service

6.4   Maintain supply of data to the Heritage Gateway

6.5   Maintain supply of metadata to Europeana where resources allow

Priorities for 2013-14

6.6   Work with partners in LoCloud to assist UK organizations to provide their metadata to Europeana

6.7   Work with UCL, JISC PRIME project partners, and other institutional repositories (including the Bodleian, Bristol, Southampton and York) to encourage policy development and harvesting of metadata for ADS archives.

6.8   Subject to resources seek to integrate external resources into ArchSearch via web services.

6.9   Work with the museum sector to facilitate discovery of digital archives and interoperability of event data

7.   Undertaking Research and Development

Objective

- To ensure the work of the ADS is informed by the most current research, allowing both collaboration with partners to contribute to useful outcomes, and to raise the profile of the ADS as an organisation undertaking high-quality research
- To further enhance selected content and improve accessibility and usability
- To raise additional funding to complement core activity

Tasks/Deliverables

7.1   Attend and present papers at a minimum of four key conferences per annum

7.2   Publish a minimum of two research papers per annum

Priorities for 2013-14

7.3.   On behalf of English Heritage and the OASIS Management Board, and subject to funding, undertake the first phase of the HERALD project to research the user needs for a revised UK archaeological event recording system

7.4   Work with University of Reading and Cotswold Archaeology on Roman grey literature project

7.4   Work with ARIADNE and SENSCHAL partners on linked data and investigate its use for richer data integration across ADS and *Internet Archaeology*, as well as external linkages

7.5   Work with ARIADNE partners on NLP of grey literature

8.   Maintaining effective service management and administration

Objectives

- To ensure long term sustainability
- To ensure effective service operation
- To encourage staff career development

Tasks/Deliverables

8.1   Implement new ADS 5-year strategic plan for 2013-18

8.2   Raise a minimum of £500,000 funding per annum

8.3   Maintain oversight of funding opportunities at national, European and international levels

8.4   Undertake monitoring and evaluation through bi-annual meetings of the Management Committee

8.5   Provide reports to funders as required

8.6   Maintain internal management, reporting & accounting structures

8.7   Conform to University of York practices and procedures

8.8   Maintain and update a range of publicly available policies that inform ADS work

8.9   Maintain and develop the preservation fund

8.10   Encourage staff development and career development plans

Priorities for 2013-14

8.11   Support applications developers in Oracle training

8.12   Develop a programme of ADS lunchtime seminars

8.13   Encourage staff engagement in Archaeological Information Systems Research Group and University of York Centre for Digital Heritage

8.14   Implement more integrated internal project management procedures, including usage of MS Project for scheduling tasks

8.15   Define internal coding standards for Java and Coldfusion