Digital Transformations in the Arts and Humanities: Big Data Research
Call for proposals

Closing date for proposals: 4pm, Thursday 12th September 2013

Summary

The AHRC is pleased to invite proposals for projects to explore Big Data from an Arts and Humanities prospective. The AHRC has a total of £4m capital funding available under this call. As a main output, these research projects should produce a tangible asset that sustains beyond the life of the project. Further details about these expected assets, and what form they can take, can be found in the ‘Research Outputs’ section of this document.

This is an open call and applications may be submitted from any eligible Research Organisation, or AHRC recognised Independent Research Organisation. There is no limit to the number of proposals that can be submitted by each Research Organisation.

This call is being run through the Digital Transformations in the Arts and Humanities Theme, and proposals must both compliment and add value to the core aims of the theme, and previous research funded through the theme.

Funding for either smaller projects of up to £100k, or larger projects of up to £600k is available on a fEC basis, with the AHRC meeting around 80% of the fEC. Awards should last for a maximum of 15 months and will be expected to start on 1 January 2014 and finish by 31 March 2015.
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Background
Big data has been defined by the IT consultancy Gartner as follows: “Big data are high volume, high velocity, and/or high variety information assets that require new forms of processing”. In research terms, big data comprises information resources which are so large that they exceed the capacity of commonly used software and other tools, so that users have perforce to develop new approaches and methodologies to analyse them. Some of the most familiar examples of big data are in the sciences. The Large Hadron Collider (LHC) produces 15 petabytes (15 million gigabytes) of data annually, and this data is analysed by a grid comprising over 140 centres over 35 countries. As the LHC illustrates, one important aspect of big data is that so many events are recorded that evidence can be found of extremely rare events.

The importance of big data is increasingly being recognised by social scientists, who are developing initiatives to curate and analyse such examples of big data as retail data, banking information, transport data and administrative data. The Arts and Humanities are also beginning to confront the problems of dealing with large-scale data. The e-mail archive
for the presidency of George W. Bush has recently been made available, and consists of 200 million e-mails occupying about 80 terabytes. The British Library has made available around 25 million pages of scans from its nineteenth-century collections but as these are only available on a 30 terabyte storage device, new methods are required to explore them. Artists have increasingly begun to recognise that big data provides opportunities to explore new types of visualisation and representation, for example the artworks recently commissioned by the Open Data Institute illustrate this (http://www.theodi.org/culture/collection).

In previous decades, big data research questions have been limited by the size of the computer available. With more powerful computing facilities and larger storage capabilities, research into larger and larger quantities of data has become possible. However, for researchers meaningfully to engage with information on such a large scale, it is necessary to develop new tools and methods, perhaps drawing on scientific tools, such as the high quality visualisations of textual information developed by the Texas Advanced Computing Center in ‘A Thousand Words: Advanced Visualization for the Humanities’ (http://www.tacc.utexas.edu/tacc-projects/a-thousand-words). With such tools, big data can be investigated for a purpose it was not collected for, with different kinds of questions being asked, using different methodologies and producing new insights. Some of the methodologies commonly used for big data, such as predictive analytics, pose major methodological challenges for the nature and purpose of Arts and Humanities research which are ripe for further investigation.

There are, however, challenges that arise from working with any data, for example with regard to issues of privacy and trust as well as intellectual property and copyright. How can data be shared effectively, and results disseminated, while adhering to ethical and legal frameworks? When information has been re-appropriated and re-used, is it clear who owns the data and what its provenance is? Inherent to scientific approaches to big data are highly selective approaches to curation of the data and the frequent use of simulations. What issues do such methods pose in the Arts and Humanities, and how do these challenge received wisdom in respect of sustainability, curation and standards?

Understanding and contextualising big data is also non-trivial. Scientific data generated by single activities such as the LHC is comparatively homogenous in nature; large data sets generated for humanities research can potentially be very heterogeneous in its nature and the issues of complexity can be as challenging as those of scale. The original sources of data...
can become obscured by re-mix and re-use, with data driven techniques leading to misinformation on how and why it was gathered. Data come in different forms of varying quality, resulting in mixed and incomplete interpretations or narratives.

This call aims to address some of these challenges, as well as to ask interesting questions of data and produce innovative and creative assets for future Arts and Humanities research. The call forms part of the AHRC’s Digital Transformations in the Arts and Humanities Theme. The theme aims to exploit the potential of digital technologies to transform research in the Arts and Humanities, and to ensure that Arts and Humanities research is at the forefront of tackling crucial issues such as intellectual property, cultural memory and identity, and communication and creativity in a digital age.

The Digital Transformations Theme is not simply about studying technology and its use in the Arts and Humanities; it seeks to encourage innovation in developing and using this technology as well.

Full details of the Digital Transformations in the Arts and Humanities Theme can be found on the AHRC website at the following link:

http://www.ahrc.ac.uk/research/fundedthemesandprogrammes/themes/digitaltransformations/

**Call for Proposals**

Applications are invited under two strands of funding through this Big Data Research call. These two strands have been devised to encourage a variety of different types and scales of projects, while ensuring that useful comparisons can be made.

**Smaller projects of up to £100k**

Projects submitted under this strand can be more exploratory and speculative in nature and would be likely to be using an existing data source and creating an innovative output from that data. These projects might be pilot or scoping studies, which if successful, could then form the basis for a larger more robust project in the future. While projects with a strong practical engagement in use, management and analysis of big data are encouraged, projects may also focus on the ethical, methodological and infrastructure issues posed by the rise of big data.
N.B. We would particularly encourage **Early Career Researchers** to submit applications to this smaller value bracket. Details regarding Early Career Researcher eligibility can be found in our Research Funding Guide at the following link:


**Larger projects of up to £600k**
Projects submitted under this strand would need to take a more in-depth approach to their proposed research. They could possibly include visualisations and analysis of big data, creation of new tools and workflows for big data, the assessment of use of high-performance computers, creation of artworks and other objects with big data, and may generate new big data. These projects may involve greater collaboration with both academic and non-academic partners and within or between disciplines.

The aim of both strands is to produce innovative, collaborative projects that add value to the Digital Transformations theme, can potentially have a big impact in the Arts and Humanities, and also raise enthusiasm about the potential of big data to facilitate and support innovative research in the Arts and Humanities.

**Scope of the Call**
This call is open to applicants wishing to work with any existing or new source of big data. Types of big data projects funded under this call could make use of existing big data, generate new big data or create tools so that Arts and Humanities researchers, or indeed anyone, can navigate and dissect big data and make use of it in their research or everyday lives. Some examples of the types of big data that could be investigated include:

- Time-based media, including film, TV, CCTV footage etc;
- Retail data;
- Geospatial data;
- Email and social media, including aggregators;
- Images and associated metadata;
- Performance data, including raw data of recordings, choreography, performance structure;
- Open government data;
- Music;
- Large-scale digital scans of library and archive holdings such as newspapers and books;
• Library, Museum and Gallery archive and catalogue data.

This list is not intended to be exhaustive, but to provide food for thought. Further suggestions of holdings of big data which may be relevant to this call can be found in the list of British Library digital collections on the British Library Labs site (http://labs.bl.uk/Digital+Collections); at http://data.gov.uk/data; in the Open Data Census maintained by the Open Knowledge Foundation: http://census.okfn.org/; and the Administrative Data Liaison Service run by the ESRC (http://www.adls.ac.uk/)

**Research Outputs**

As a main output, these research projects should be producing a tangible asset that sustains beyond the life of the project.

These assets could take a variety of forms including, but not restricted to:

• tools for problematizing or interrogating big data;
• visualisations or sonifications of data content;
• artwork based on or inspired by big data;
• open datasets;
• new, linked or mixed data sets;
• training materials for working with big data in the Arts and Humanities.

It is the responsibility of the applicant to make a case for why the asset proposed is appropriate. In order to be funded, proposals must include robust plans for the long term management and sustainability of the impact of the investment beyond the AHRC capital funding period. In terms of long term sustainability we are looking to periods of around 5-10 years or more. We envisage that a key element of this will be adherence to the use of open formats and standards. Applicants should include a clear statement within their proposal about how the project will adhere to open data expectations, and how issues relating to intellectual property rights, copyright and ethics, for example will be handled.

**Collaboration**

Applications submitted under this call **must** be collaborative. The collaboration may involve a single institution or a combination of institutions, and may involve people from the same or different research areas, including collaboration between disciplines within the Arts and Humanities, or between an Arts and Humanities discipline and another subject area.
Applications may involve collaboration with colleagues within other sectors as Project Partners or collaborators.

Please note that we encourage applications that include International collaboration, however it is not essential. In addition to either including International Organisations as Project Partners, or individuals as consultants, it is now possible to include International Co-Investigators time within the project.

Further details regarding the inclusion and eligibility of International Co-investigators can be found in our Research Funding Guide at the following link:

http://www.ahrc.ac.uk/documents/guides/research-funding-guide/

We would also encourage collaboration with non-academic organisations through this call, however again this is not essential. Please note that The British Library and The National Archives have highlighted their interest in working with successful projects and have provided the following notes for applicants to consider when putting together their proposals:

**British Library Engagement**

The British Library (BL) is interested in working with successful projects in accessing and utilising their large-scale sources of data. To enable BL to work most effectively with relevant projects, they request that applicants contact them at the earliest opportunity to discuss the details.

The BL have already made available large digital data sets through the British Library Labs initiative, which can be freely accessed at http://labs.bl.uk.

Other material may also be available, but may involve more complex technical or licensing considerations and require some work to make this accessible to applicants. If you wish to access content not currently readily available, you should contact BL as soon as possible to assess challenges, costs, or scheduling.

The British Library has Independent Research Organisation status, and is therefore eligible to apply for funding under this call. Applicants may also include costs incurred by the British Library in making their digital content available or providing other supporting activities.

Queries should be directed to labs@bl.uk
**National Archives Engagement**

The National Archives is interested in working with successful projects which wish to access and utilise its sources of big data and facilities. To enable The National Archives to work most effectively with relevant projects, they request that applicants contact them at the earliest opportunity to discuss the details.

The National Archives has Independent Research Organisation status, and is therefore eligible to apply for funding under this call. Applicants may also be asked to include costs incurred by the National Archives in making their digital content available.

Queries should be directed to Victoria Lain at victoria.lain@nationalarchives.gsi.gov.uk

**N.B** Please note that the Arts and Humanities element of the project should lead the research questions and methods, and the collaboration proposed should be appropriate and necessary to the specific needs of the research project.

**Equipment Costs**

Please note that unlike other AHRC grants, individual items of equipment in excess of £10,000 may be requested on these grants. Individual items of equipment up to £10,000 (including VAT) should be included in the ‘Directly Incurred - Other’ fund heading and are not covered by the following guidance.

Individual items of equipment costing between £10,000 and the OJEU threshold (net of VAT £113,057, inclusive of VAT £135,668) will require a Research Organisation contribution of 50 per cent. However please note that the AHRC will potentially fund 80% of the full economic cost for the first £10,000 as usual, and then 50% of the remaining amount between £10,000 and the threshold. Please calculate the AHRC contribution, and make a case for these costs within the Justification of resources.

The research organisation will need to provide extra justification for these items of equipment in the justification of resources, including evidence of an evaluation of the use of existing relevant capital assets. They will also be expected to make a contribution towards the cost of the equipment. Given that capital provision across councils has been reduced by about 50 per cent, contributions of this order will be expected.
Equipment costing above the OJEU threshold will potentially be funded at 100 per cent. Please note however that a **Business case will be required for this equipment.**

All requests for single capital items of equipment costing above the OJEU threshold should be accompanied by a two page business case outlining the strategic need for the equipment. Business cases should be included in the 'Equipment' section as attachment type 'Business Case'. RCUK will decide the strategic location for these items and will potentially fund them at 100 per cent. Each Council will have flexibility in relation to the funding of equipment to negotiate with potential grant recipients to achieve best value from the limited funds at its disposal. Applicants should refer to Grant Conditions GC11 regarding procurement of equipment and GC12 regarding Ownership of Equipment.

At the proposal stage cost inclusions for major spend on equipment should be estimated as robustly as possible. For all items exceeding £25,000 the proposal should explain the basis for the estimates, using benchmarking figures wherever possible. Estimates for survey costs should **not** allow for inflation. In addition, professionally qualified procurement staff at the RO must be consulted at the beginning of the procurement process, and must approve the order before it is placed with the supplier.

For all items of equipment requested with a value over the OJEU threshold value, three equipment quotations **must** be provided. Where you believe that there are less than three potential suppliers for an item you should explain this in the 'Justification of Resources' attachment and upload blank documents for equipment quotes as necessary. For items of equipment which cost less than the OJEU threshold but more than £25,000, it is optional to provide quotations and up to three can be uploaded. Quotations should be included in the 'Equipment' section as attachment type 'Equipment Quotation'. Please note that Equipment quotations are added within the equipment item screen, not within the attachments section.

**Virements** in or out of the equipment heading are not permissible as these funds are ring-fenced. Any proposal to purchase an item of equipment in the last six months of the grant is subject to prior written approval by the Research Council.

Please note that if successful, the AHRC will pay the costs for any equipment up front at the beginning of the award. All other costs will be profiled over the period of the award as normal.
Application and Assessment Process

How to Apply
Applications should be submitted through the Je-S system at the latest by 4pm on Thursday 12th September 2013, and will need to go through the appropriate institution submission process. You should submit your proposal using the Research Councils’ Joint electronic Submission (Je-S) System (https://je-s.rcuk.ac.uk/). To prepare a proposal form in Je-S log-in to your account and choose New Document, then select AHRC as the Council, Standard Proposal as the Document Type, Large Grants as the Scheme, Digital Transformations in the Arts and Humanities: Big Data Projects 12 September 2013 as the Call/Type/Mode and then 'Create Document'. Je-S will then create a proposal form, displaying the relevant section headings. Using the ‘Help’ link at the top of each section will provide guidance relevant to that section of the form. Please take care when choosing the Call/Type/Mode as other similar options will be presented in the drop-down list.

Note that clicking 'submit document' on your proposal form in Je-S initially submits the proposal to your host organisation's administration, not to AHRC. Please do not leave submission to the last minute and remember to allow sufficient time for your organisation’s submission process between submitting your proposal to them and the Call closing date. Once the call closes for submission at 4.00pm on Thursday 12th September 2013 it will not be re-opened and institutions will not be able to submit the application.

Awards are available for a period of up to 15 months. Please note that in order to coordinate the work of the activities; all awards must finish by 31 March 2015. Please note that all awards must have a start date of 1 January 2014, and this should be confirmed through the JeS portal no later than 1st February 2014. If the start of the project has not been confirmed by this date the AHRC will deem the offer of an award to have been declined.

Guidance on completing the application form and also the attachments that are required can be found in Appendix A.
Assessment Criteria
In addition to the AHRC’s standard assessment criteria (found in the AHRC Funding Guide http://www.ahrc.ac.uk/documents/guides/research-funding-guide/), the following criteria will be used to assess the proposals:

- **fit to the call specification**
- **Potential value of the research-based assets**, including attention to open data principles and to broader issues surrounding the sustainability of the assets created, the tools, skills and capabilities needed to support their utilisation and adequate attention to issues such as copyright and intellectual property.
- **Contribution to the Digital Transformations Theme**, for example the potential to make a significant broader contribution to the Digital Transformations Theme, by demonstrating the ability of big data to support the investigation of new research questions and the development of new methodologies.

All proposals submitted requesting funding for under £100k will be assessed by a panel of experts, which will make recommendations of funding to the AHRC. Proposals requesting funding for more than £100k will be subject to a two stage assessment process consisting of peer review and an assessment panel. For these applications we will, where possible request 3 reviews by members of the AHRC’s Peer review College. If suitable college members are not available then the AHRC reserves the right to seek reviews from specialists from the UK and abroad, who are not current members of the Peer Review College. All proposals that receive a majority of fundable grades at the peer review stage will then be assessed by a panel of experts.

**Timetable of activity**

<table>
<thead>
<tr>
<th>Expected Timetable Activity</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deadline for submission of proposals</td>
<td>4pm, 12th September 2013</td>
</tr>
<tr>
<td>Assessment Panel meeting</td>
<td>October 2013</td>
</tr>
<tr>
<td>Decisions</td>
<td>November 2013</td>
</tr>
<tr>
<td>Successful Funding projects start</td>
<td>By 1 January 2014</td>
</tr>
</tbody>
</table>
Contacts

If you have queries regarding this funding call please contact either:

Wendy Matcham, Portfolio Manager wendy.matcham@ahrc.ac.uk

Claire Spooner, Programme Co-ordinator c.spooner@ahrc.ac.uk

Or

Dr Pamela Mason, Strategy & Development Manager – p.mason@ahrc.ac.uk
Appendix A

Guidance on Completion of the Je-S Application Form

Please ensure that the correct form is used – further details can be found in this document under ‘How to apply’.

Complete details of the applicant, Research Organisation, Project Title, Start date and duration of the project on the appropriate form.

Costs
All costs must be itemised separately within the budget breakdown section of the application form. You can include costs of the salary of the Principal Investigator and where appropriate the Co-Investigator(s), for the time spent overseeing and providing intellectual input to the activities. Where the PI or Co-I’s intend to do this within time funded under another project funded by the Research Councils you should not include their time in this application to avoid duplication of funding.

Other costs that can be included are; the cost of setting up and coordinating the activities (for example, the salary costs of a project coordinator or administrative support), research assistance, estates and indirect costs, costs involved in organising events and travel and subsistence costs for participants.

All costs should fall under one of the following headings:

Directly Incurred
These are costs that are explicitly identifiable as arising from the conduct of a project, are charged as the cash value actually spent and are supported by an audit record. They include:

- **Staff** – Payroll costs requested for staff, full or part-time, who will work on the project and whose time can be supported by a full audit trail during the life of the project.
- **Travel and Subsistence** – Funds for travel and subsistence for use by staff who work on the project where these are required by the nature of the work. Funds for travel and subsistence for participants and collaborators who participate in and contribute to the project.
• **Equipment** – The cost of individual items of equipment dedicated to the project and costing more than £3,000 (including VAT).

• **Other costs** – Costs of other items dedicated to the project, including consumables, books, survey fees, purchase/hire of vehicles, publication costs or recruitment and advertising costs for staff directly employed on the project. Items of equipment costing less that £3,000 should also be included under this heading.

**Directly Allocated**
These are the costs of resources used by a project that are shared by other activities. They are charged to projects on the basis of estimates rather than actual costs and do not represent actual costs on a project by project basis. They include:

• **Investigators** – Proposals will need to show the costs of the Principal Investigator and any Co-Investigators if their time charged to the project is based on estimates rather than actual costs. (Salary costs of participants and non-academic partners cannot be included)

• **Estates** – These costs may include building and premises costs, basic services and utilities, and any clerical staff and equipment maintenance or operational costs not already included under other cost headings.

• **Other Directly Allocated** – These costs may include, for example, the costs of other research staff, technical, administrative and other support staff, or access to institutional research facilities such as equipment and IT systems.

**Indirect Costs**
These include non-specific costs charged across all projects based on estimates that are not otherwise included as Directly Allocated costs. They include the costs of the Research Organisation’s administration, such as personnel, finance, library and some departmental services.

**Indexation**
All costings should be at current prices, inclusive of VAT and other taxes where applicable, with no allowance for inflation. Any allowance for inflation that has been included in the full economic costing of the proposal by the Research Organisation must be excluded. The AHRC will include an allowance for inflation if a grant is awarded.

**Compulsory attachments**
The following attachments must be included, please note that where advice differs for each funding stream this is noted in the heading.
Case for Support guidance
You should include a ‘Case for Support’ document, of no more than 7 sides of A4 outlining
the rationale for the proposed activity, how it will add value to current activities, describing
the proposed activities to be undertaken and outline the expected outputs and
dissemination plans as appropriate. You should structure your case for support using the
following headings:

  i) Vision for the Proposed Project to include:

    Research questions

    You should give a brief, clear description of the research questions, challenges, issues or
    problems that it is envisaged that the final proposal would address. Please outline what
    aspects of this the team will be exploring or developing further in the course of the award

    Rationale and research context

    You should briefly describe the rationale, approach and research context of the activities for
    the project, including appropriate references where necessary. Why is it important that
    these questions or issues are explored? What other research is being, or has been,
    conducted in this area? How has the framing of the research been enriched by drawing on
    cross-disciplinary insights, including from the Arts and Humanities?

    Aims and objectives

    You should briefly describe the research methods or approaches it is envisaged that the full
    project could use to investigate the questions, including aims and objectives that have been
    set and why these approaches have been selected for further development. How might the
    research make a significant and innovative contribution to advancing the research field?

    Contribution to the Digital Transformations in the Arts and Humanities Theme

    How might the proposed project contribute to the aims of the Digital Transformations in the
    Arts and Humanities Theme?

  ii) Proposed development activities to include:

    Description of development activities and timetable of activities

    Please describe the planned activities for developing the research ideas further, outlining
    the proposed approach or methods for development work as appropriate. Explain why the
    proposed activities (e.g. additional scoping, review, networking and other consultative and
partnership building activities) have been selected as the most appropriate and important ways to develop the research ideas identified. You should also give an estimated timetable of activities, including an outline schedule for any events such as workshops, symposia, conferences, meetings etc.

**Collaboration**

Please outline who will be involved in the activities, including research collaborators (e.g. other Research Council-funded activities, researchers funded by other funders, overseas researchers etc.), proposed knowledge exchange / stakeholder partners and engagement with communities or community groups. Please describe the role / input of collaborators in the activities.

**Management and co-ordination**

How will the development activities be managed and delivered? What will be the roles of the Principal Investigator, the Co-Investigator, and other members of the team such as coordinators/administrators? You should briefly explain the work programme and management of the development activities, and a brief rationale for the level of resources required.

**Technical Summary**

All proposals must complete this section.

If digital outputs or digital technologies are essential to the planned research outcomes of your proposal, then you should:

a) Use this section to provide a brief description of the projects proposed digital outputs and/or digital technologies.

AND

b) Complete a Technical Plan and add this as an attachment to your proposal

**Outcomes and dissemination**

To which audiences will the activities and their outcomes be of interest? How will any outputs be discussed with, and/or communicated and disseminated to, those audiences?
Justification of Resources

All costs associated with the research project must be explained and justified in the Justification for Resources attachment, with the following exceptions:

- Estates costs
- Indirect costs
- Investigator salary costs
- Some other Directly Allocated – general technical services,
- Shared lab equipment

Pathways to Impact

The Pathways to Impact attachment (of up to 2 sides of A4) asks you to expand on the Impact Summary by answering the question what will be done to ensure that potential beneficiaries have the opportunity to engage with the research?

The Pathways to Impact attachment is your opportunity to describe in more detail how the potential impacts of the research beyond academia, as outlined in the Impact Summary, will be realised. Taking into account what is reasonable and appropriate given the nature of the research you propose to conduct, you are asked to describe how the proposed research will be managed to engage any users and beneficiaries that have been identified, or to identify potential users and beneficiaries as the research progresses, and to increase the likelihood of achieving impacts. In presenting your plans, you should tailor and target your impact activities to ensure that they are relevant to the specific user and beneficiary groups likely to be interested in your research and appropriate for supporting the potential research impacts outlined. Innovative and creative approaches are strongly encouraged.

When completing the attachment, you should consider (and address if appropriate) methods for communications and engagement, collaboration and exploitation. You should also detail who will be undertaking any impact activities and include any resource implications in the financial summary and in the separate Justification of Resources attachment.

Letter of Support

A letter of support should be included for all project partners involved in the project. The letter should include:

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• Confirmation of the partner’s support of the project
• Confirmation and details of the value of the Partner’s contribution to the project, whether in-kind or monetary

CV

A summary CV should be included for the Principal Investigator, each Co-investigator and any named Research Assistants. Each CV should be no more than one side of A4.

Publication lists

A publication list should be included for the Principal Investigator, each Co-investigator and any named Research Assistants. Each publication list should be no longer than one side of A4.

Technical Plan

A Technical Plan should be provided for all applications where digital outputs or digital technologies are an essential part to the planned research outcomes. A digital output or digital technology is defined as an activity which involves the creation, gathering, collecting and/or processing of digital information. For present purposes digital technologies do not include conventional software such as word processing packages and ICT activities such as email.

The Technical Plan must use the following headings:

Section 1: Summary of Digital Outputs and Digital Technologies

Section 2: Technical Methodology

  2a: Standards and Formats
  2b: Hardware and Software
  2c: Data Acquisition, Processing, Analysis and Use

Section 3: Technical Support and Relevant Experience

Section 4: Preservation, Sustainability and Use

  4a: Preserving Your Data
4b: Ensuring Continued Access and Use of Your Digital Outputs

**Gantt Chart**

Please provide a Gantt chart outlining an indicative plan/ schedule of activities for the project (please add this as an ‘additional attachment’).

In the case of this call, it is accepted that the issues posed by Big Data may make it difficult to deal with all these issues in the fashion that would be expected in more conventional projects. However, the reviewers will look for evidence that some consideration has been given to each of these major functional areas.

Further details regarding completion of the technical plan can be found on pages 67 – 72 of our [Research Funding Guide](#).