This policy governs the criteria for assignment by the Bodleian Libraries of DOIs (Digital Object Identifier)\(^1\) to research data produced by members of the University of Oxford. The University of Oxford ‘Policy on the management of research data and records’\(^2\) defines research data as ‘recorded information (regardless of the form or the media in which they may exist) necessary to support or validate a research project’s observations, findings or outputs.’

1. Introduction
A DOI is intended to be a persistent, unique identifier for digital objects.\(^3\) The DOI system is managed by the International DOI Foundation. Permission for an institution such as Oxford to ‘mint’ and assign DOIs has to be approved by a DOI Registration Agency. In the case of datasets in the UK, the agency is the British Library acting on behalf of the DataCite organisation.\(^4\) The Bodleian Libraries are permitted, on behalf of the University of Oxford, to assign DOIs for datasets at the University of Oxford. The Bodleian Libraries take responsibility for ensuring compliance with the DataCite terms and conditions as specified in the ‘DOI allocation agreement Between the British Library Board and the Chancellor, Masters and Scholars of the University of Oxford.’

2. Eligible items
- The Bodleian Libraries are permitted to assign DOIs to research data\(^5\). This does not include publication-like items such as articles, books, reports or similar items. Details of the coverage of the DOI agencies, including DataCite, can be found on the DOI.org website.\(^6\)
- All Oxford DOIs will resolve to a freely available item record page in ORA-Data, the University’s online research data archive. ORA-Data is managed and maintained by the Bodleian Libraries.

3. Versions
All new versions of datasets in ORA-Data will be assigned new DOIs. Version numbers are indicated within the Oxford DOI syntax.

4. Location of research data
   a) ORA-Data
      Datasets deposited in ORA-Data can be assigned a DOI if requested by the data owner. This includes embargoed data that have a freely available record.
   b) Other internal Oxford data repositories
      If data owners choose to deposit data in other University of Oxford owned and maintained data stores and require a DOI, they should contact the Bodleian Libraries to discuss individual arrangements.\(^7\) Data archives will be expected to provide assurance of compliance with the terms of the DataCite contract.
   c) External data repositories
      The Bodleian Libraries cannot assign DOIs to datasets stored in repositories not controlled by the University of Oxford. A record providing details of the dataset including its location and DOI assigned by another issuer should be deposited and displayed in ORA-Data.

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\(^1\) See http://www.doi.org/
\(^2\) Available at http://researchdata.ox.ac.uk/university-of-oxford-policy-on-the-management-of-research-data-and-records/
\(^3\) NOTE: DOIs are commonly used as identifiers for digital objects, however they are not the only type of identifier in use. The Bodleian Libraries automatically assign an internal unique identifier (UUID) for every digital object held in their digital systems, in addition to DOIs and other identifiers.
\(^4\) http://datacite.org/
\(^5\) The British Library has not clarified whether or not DOIs can be assigned to non-digital data (physical objects).
\(^6\) http://www.doi.org/registration_agencies.html
\(^7\) See Appendices 1 and 2 (checklist)
5. Charges
Oxford’s DataCite subscription is managed by the Bodleian Libraries on behalf of the University. A charge is incurred to the University for DataCite membership and for minting DOIs. A charge is made by the Bodleian Libraries for assigning a DOI to a dataset. Charges are included in the ORA-Data charging model\(^8\).

6. Governance
- Oversight of this policy lies with RIMSC (Research Information Management Sub-committee of the Research Committee).
- The Bodleian Libraries Executive Group is responsible for ensuring effective management and maintenance of ORA-Data and compliance with the DataCite agreement, and may delegate this responsibility to the appropriate groups or specialists.

7. Relationship with existing policies
This policy will operate in conjunction with other University policies.
- Depositors must ensure the deposit of their data in ORA-Data is in compliance with their responsibilities under the University of Oxford Policy on the Management of Research Data and Records\(^9\).
- ORA-Data acceptance policy
Information about research data matters, can be found at the University of Oxford RDM website\(^{10}\).

8. Contact
Sally Rumsey, The Bodleian Libraries.
sally.rumsey@bodleian.ox.ac.uk

\(^{24}\text{th} \text{ November 2014}\)

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\(^{8}\) In preparation
\(^{9}\) Available at http://researchdata.ox.ac.uk/
\(^{10}\) See http://researchdata.ox.ac.uk
APPENDIX 1
Criteria for assigning DOIs to datasets not held in ORA-Data

1. University of Oxford data DOIs will only be assigned to datasets held in data repositories\(^{11}\) that are owned, managed and maintained by a unit of the University (such as an academic department or similar). See ‘Digital preservation’ below.

2. For the Bodleian Libraries to assign a DOI to a dataset not held in ORA-Data, assurance must be given that the data repository and treatment of the dataset complies with the University’s DataCite obligations (as described in University of Oxford policy for assigning DOIs to datasets above and sections 4, 5 and 6 below). A named individual (in this document called the ‘Data Repository Manager’) must be responsible for ensuring these obligations are met for the data repository being used.

3. The Data Repository Manager must be able to confirm that they hold the rights and authority to maintain and provide reasonable access to the dataset and its metadata.

4. Digital preservation
The data repository must have a clear and public indication of intention to preserve the dataset or to provide access to it over the long-term, which may be a full data management plan or a clear mission statement. The Bodleian Libraries must be provided with:

- evidence of intention of longevity and persistence of the data repository
- assurance of the security of the data held in the repository (to ensure that data held in the repository are not tampered with)
- evidence of a robust exit strategy for the data repository
- assurance of the persistence of the URLs assigned to datasets in the repository
- procedures for alerting the Bodleian if the local URL of the dataset changes
- details of a Data Steward who takes responsibility for queries about the dataset post-deposit and being informed if the Data Steward changes.

5. Metadata
A metadata record for the dataset must be deposited in ORA-Data that complies at the very least with the DataCite minimum metadata.\(^{12}\)

- The DOI will be assigned to this record
- The record should provide a link for access to the dataset; or details of its location; or who to contact to enquire about the dataset; or details of any embargo.
- The record for the data in ORA-Data will be fully open to anyone with Internet access
- Metadata describing the dataset will be deposited in the DataCite Metadata Store by the Bodleian Libraries.
- Metadata describing the dataset and will be made available under CC0 licence in the DataCite Metadata Store
- DataCite mandatory metadata fields describing the dataset must not be modified. If changes need to be made, the Bodleian Libraries must be notified in advance in order to obtain permission from the BL for the data repository to make such changes.

6. Stable dataset
6. No changes must be made to the dataset once the DOI has been assigned. If changes are unavoidable, this may take the form of a new version of the original. This new version will require a new DOI and access to the original dataset must be maintained.

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\(^{11}\) A research data repository offers a service to record, store, access and share digital data in the long-term in a trustworthy environment.

\(^{12}\) Comprising: Data creator; Title; Date of publication; Data publisher [University of Oxford]; ID [This will be the DOI]. See http://schema.datacite.org/
### APPENDIX 2

**CHECKLIST for assigning DOIs to datasets not held in ORA-Data**

If you are able to answer ‘Yes / Agree’ to all the statements below, you may apply to the Bodleian Libraries for a DOI for your dataset that is not held in ORA-Data.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>YES / AGREE</th>
<th>NO / DISAGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>I have read the ‘University of Oxford policy for assigning DOIs to datasets’ including the ‘Criteria for assigning DOIs to datasets not held in ORA-Data’ available at [LINK to be inserted] The data repository and treatment of the dataset comply with the University’s DataCite obligations described in that policy document.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1b</td>
<td>The data are held in a data repository(^\text{13}) that is owned, managed and maintained by a unit of the University (such as an academic department or similar)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2a</td>
<td>A named individual (the 'Data Repository Manager') has been assigned as responsible for ensuring these obligations are met for the data repository being used</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>The Data Repository Manager can confirm that they hold the rights and authority to maintain and provide reasonable access to the dataset and its metadata</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4a</td>
<td>The data repository has a clear and public indication of intention to preserve the dataset or to provide access to it over the long-term, which may be a full data management plan or a clear mission statement.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4b</td>
<td>I can supply the Bodleian Libraries with:   - evidence of intention of longevity and persistence of the data repository   - assurance of the security of the data held in the repository (to ensure that data held in the repository are not tampered with)   - evidence of a robust exit strategy for the data repository   - assurance of the persistence of the URLs assigned to datasets in the repository   - procedures for alerting the Bodleian if the local URL of the dataset changes   - details of a Data Steward who takes responsibility for queries about the dataset post-deposit and being informed if the Data Steward changes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5a</td>
<td>A Metadata record for the dataset will be deposited in ORA-Data that complies at the very least with the DataCite minimum metadata(^\text{14})</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5b</td>
<td>The ORA-Data record will provide a link for access to the dataset; or details of its location; or who to contact to enquire about the dataset; or details of any embargo.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5c</td>
<td>DataCite mandatory metadata fields describing the dataset will not be modified. If changes need to be made, the Data Repository Manager will notify the Bodleian Libraries in advance in order to obtain permission from the BL for the data repository to make such changes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>No changes will be made to the dataset once the DOI has been assigned.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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\(^{13}\) A research data repository offers a service to record, store, access and share digital data in the long-term in a trustworthy environment.

\(^{14}\) Comprising: Data creator; Title; Date of publication; Data publisher [University of Oxford]; ID [This will be the DOI]. See [http://schema.datacite.org/](http://schema.datacite.org/)