



Data Management Plans and DMPonline

EUDAT conference, 29th October 2013, Rome

Sarah Jones
Digital Curation Centre
sarah.jones@glasgow.ac.uk
Twitter: sjDCC



Funded by:



What is a DMP?

A short plan that outlines:

- what data will be created and how
- how it will be managed (storage, back-up, access...)
- plans for data sharing and preservation



Drivers for DMPs



“Each funded research project, should submit a structured Data Management Plan for peer-review as an integral part of the application for funding.”

Liz Lyon, Dealing with Data



Asks for “institutional and project specific data management policies and plans”

RCUK Common Principles



University policy...

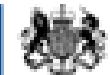
Which UK funders require a DMP?

● Full Coverage ● Partial Coverage ○ No Coverage

Research Funders	Policy Coverage			Policy Stipulations				Support Provided			
	Published outputs	Data	Time limits	Data plan	Access/sharing	Long-term curation	Monitoring	Guidance	Repository	Data centre	Costs
AHRC	●	●	●	●	●	●	○	●	○	●	●
BBSRC	●	●	●	●	●	●	●	●	●	●	●
CRUK	●	●	●	●	●	●	●	●	●	●	●
EPSRC	●	●	●	●	●	●	●	●	●	●	●
ESRC	●	●	●	●	●	●	●	●	●	●	●
MRC	●	●	●	●	●	●	○	●	●	●	●
NERC	●	●	●	●	●	●	●	●	●	●	●
STFC	●	●	●	●	●	●	●	●	●	●	●
Wellcome Trust	●	●	●	●	●	●	●	●	●	●	●

www.dcc.ac.uk/resources/policy-and-legal/ overview-funders-data-policies

Some other funders that require DMPs or equivalent



Department
for International
Development

BILL & MELINDA
GATES foundation



GenomeCanada



National Science Foundation
WHERE DISCOVERIES BEGIN



ACADEMY OF FINLAND



Vetenskapsrådet



National Institutes of Health

Turning Discovery Into Health



Deutsche
Forschungsgemeinschaft



*National Institute for
Health Research*



For research on
diseases of poverty
UNICEF • UNDP • World Bank • WHO

Five common themes

1. Description of data to be collected / created
(i.e. content, type, format, volume...)
2. Standards / methodologies for data collection & management
3. Ethics and Intellectual Property
(highlight any restrictions on data sharing e.g. embargoes, confidentiality)
4. Plans for data sharing and access
(i.e. how, when, to whom)
5. Strategy for long-term preservation

DCC Checklist for a DMP

- 13 questions on what's asked across the board
- Prompts / pointers to help researchers get started
- Guidance on how to answer

[www.dcc.ac.uk/sites/default/files/documents/
resource/DMP Checklist 2013.pdf](http://www.dcc.ac.uk/sites/default/files/documents/resource/DMP_Checklist_2013.pdf)



Potential areas for collaboration

- Ensuring compatibility and coherence in requirements
- Collaborating on tools and sharing of good practice
- Sharing ideas on reviewing and monitoring plans
- Moving from compliance to benefits for researchers

Different stages of a DMP

Outline DMP

- Basic, short plan
- Answer 3 questions
- Written at grant application stage

Full DMP

- Detailed plan
- Define procedures
- Written in conjunction with data centres

www.nerc.ac.uk/research/sites/data/dmp.asp



A useful framework to get started

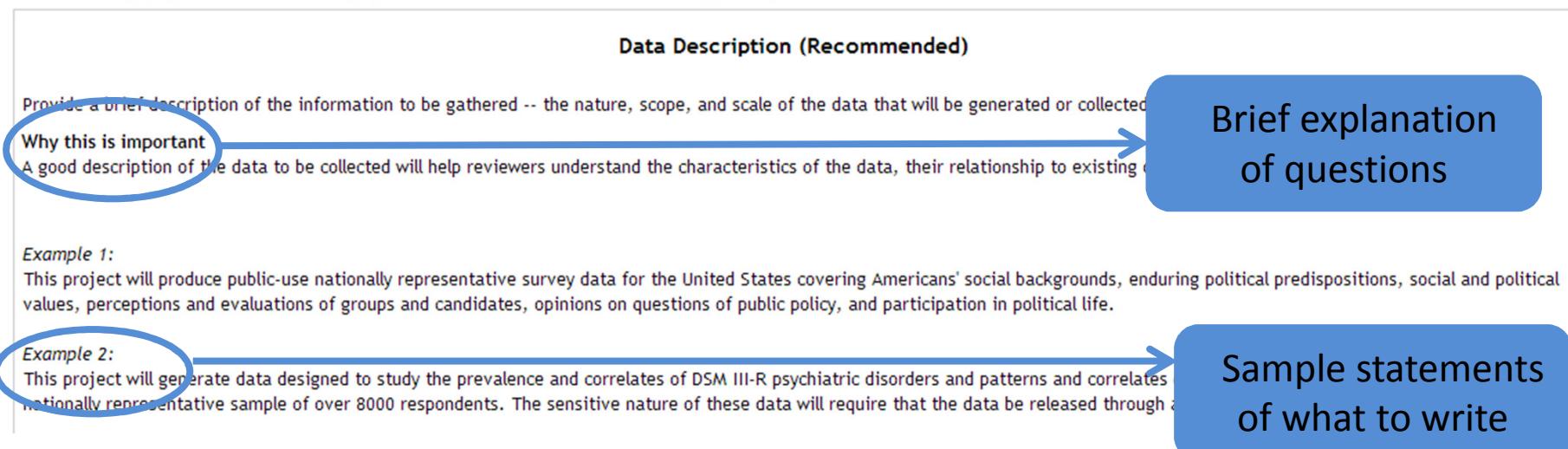
Framework for Creating a Data Management Plan

This framework can be used as an outline in assembling data management plans to accompany grant applications. Note that some funders have page limits for data management plans—NSF limits plans to two pages.

Elements of a Data Management Plan

This [list of elements](#) is informed by a gap analysis that ICPSR conducted of existing recommendations for data management plans and other forms of guidance made available for researchers generating data. The result of the gap analysis was a [comparison of existing forms of guidance](#). Elements that are highly recommended for inclusion in effective data management plans are noted.

See our [bibliography](#) for additional readings germane to the elements of a data management plan.

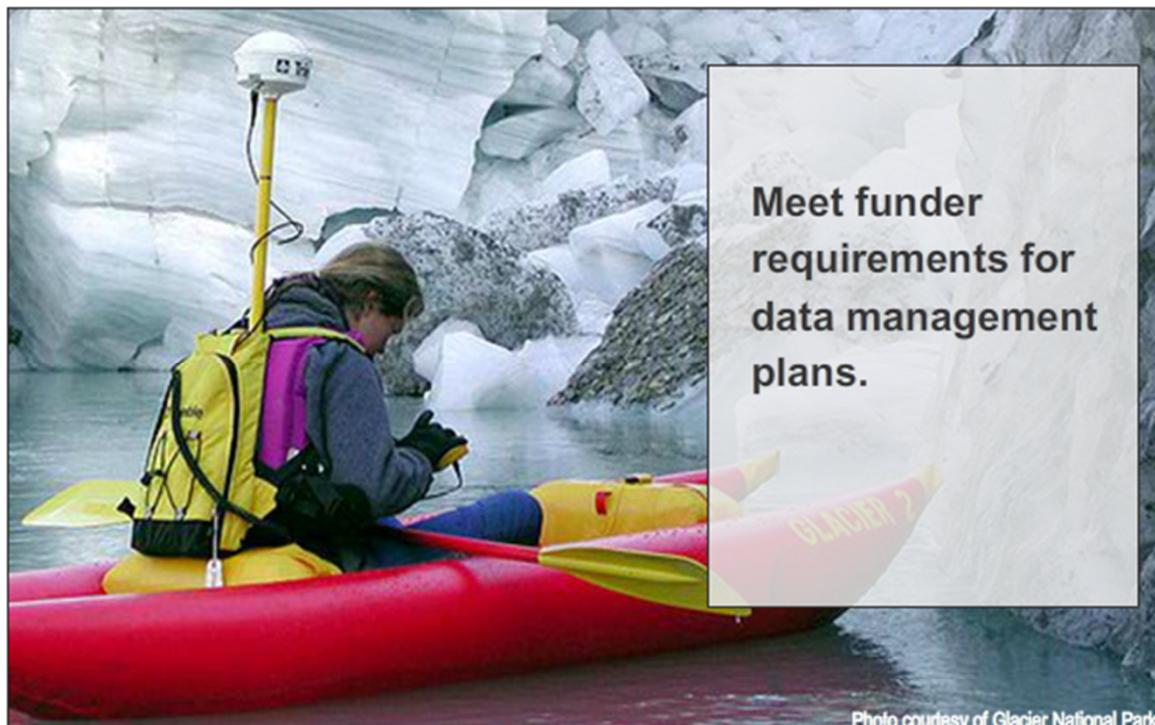


www.icpsr.umich.edu/icpsrweb/content/datamanagement/dmp/framework.html

DMPTool

Guidance and Resources for your Data Management Plan

Home About DMP Tool DMP News My Plans Funder Requirements Help ▾



The DMP Tool allows you to:

1 2 3 4

Get Started!

Data Management Plan: Sample Plan Created at the
DataONE Best Practices Workshop - Santa Fe NM 7/2011
Atmospheric CO₂ Concentrations, Mauna Loa
Observatory, Hawaii, 2011-2013

1. Types of data produced

All samples at Mauna Loa Observatory will be collected continuously from air inlets located at five towers; a central tower and four towers located at compass quadrants. Raw data files will contain raw measurements, CO₂ concentrations, calibration standards, reference standards, daily check standards, and blanks. The sample lines located at compass quadrants were used to examine the influence of source effects associated with wind direction. In addition to the CO₂ data, we will record weather data (wind speed and direction, temperature, humidity, precipitation, and cloud cover). Site conditions at Mauna Loa Observatory will also be noted and recorded. This final data product will consist of 5-minute, 15-minute, hourly, daily, and monthly average atmospheric concentration of

[See a plan created with the DMP Tool](#)

Recent DMP News

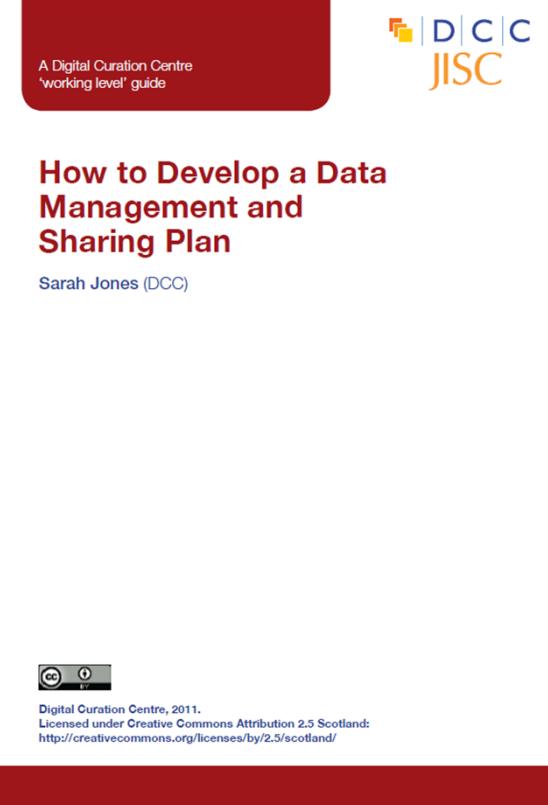
[DMPTOOL Project – October 2013 Report](#)

[DMPTOOL at the Data Information Literacy Symposium](#)

[DMPTOOL adds 100th institution!](#)

[More news >](#)

Help from the DCC



A Digital Curation Centre 'working level' guide

D|C|C
JISC

How to Develop a Data Management and Sharing Plan

Sarah Jones (DCC)



Digital Curation Centre, 2011.
Licensed under Creative Commons Attribution 2.5 Scotland:
<http://creativecommons.org/licenses/by/2.5/scotland/>

[www.dcc.ac.uk/resources/
how-guides/develop-data-plan](http://www.dcc.ac.uk/resources/how-guides/develop-data-plan)

DMPonline

The  Data Management Planning Tool

<https://dmponline.dcc.ac.uk>



[www.dcc.ac.uk/resources/data-
management-plans/checklist](http://www.dcc.ac.uk/resources/data-management-plans/checklist)

What is DM Ponline?

A web-based tool to help researchers write data management plans

A short history

- Launched in April 2010 at the Jisc conference
- Released v.2 in March 2011 with extra functionality
- Released v.3 in April 2012 with revisions in light of the DMPTool and work from the Jisc MRD programme
- v.4 beta just out, incorporating major changes from evaluation

Main features in DMPonline

- Templates for different requirements (funder or institution)
- Tailored guidance (funder, institutional, discipline-specific etc)
- Ability to provide examples and boilerplate text
- Supports multiple phases (e.g. pre- / during / post-project)
- Granular read / write / share permissions
- Customised exports to a variety of formats
- API for systems interoperability
- Shibboleth authentication

Collaboration on DMPonline

- Developed funder-specific guidance in collaboration with funders
- Developed institutional templates (questions and locally-specific guidance) with key contacts in universities
- Developed and deployed discipline-specific guidance with Jisc MRD projects (e.g. DMTPsych at York)
- Provide ongoing advice to the DMPTool consortium
- The use of DMPonline has been mooted for Horizon 2020

DMPonline v.4 beta

This site is still in development. We hope you will try it out and appreciate your feedback via DMPonline@dcc.ac.uk. However, you may encounter errors and we cannot guarantee that your data will not be lost. Please note you will need to sign up, existing DMPonline tool logins will not work.



<http://dmponline-beta.dcc.ac.uk>

[Home](#) [About](#) [News](#) [Help](#)

Welcome.

DMPonline has been developed by the [Digital Curation Centre](#) to help you write data management plans.

Create an account to start your first plan.

Sign in

User name

••••••••

[Forgot your password?](#)

Remember me

Sign in

Sign up

New to DMPonline? Sign up today.

[Contact Us](#) | [Accessibility](#) | [Terms of Use](#) | [Privacy Policy](#)

© 2004 - 2013 DCC

The DCC is funded by



Creating an account

Welcome.

DMPonline has been developed by the [Digital Curation Centre](#) to help you write data management plans.

Create an account to start your first plan.

New to DMPonline? Sign up today.

sarah.jones@glasgow.ac.uk

Organisation

glas

Glasgow Caledonian University

Glasgow School Of Art

University Of Glasgow

Contact Us | Accessibility | Terms of Use | Privacy Policy

© 2004 - 2013 DCC

The DCC is funded by

Jisc

Asks for email, organisation and password

Auto-fills uni options as you type

Creating a plan

Create a new plan

Please select from the following drop-downs so we can determine what questions and guidance should be displayed in your plan.

If applying for funding, select your research funder.

Otherwise leave blank.

Medical Research Council

To see institutional questions and/or guidance, select your university?

You may leave blank or select a different institution to your own.

Tick to select any other sources of guidance you wish to see.

Digital Curation Centre

Create plan

Institution

University Of Glasgow

Anglia Ruskin University

Aston University

Bangor University

Bath Spa University

Birkbeck College

Digital Curation Centre

Select your funder
(if any)

Select relevant uni
for DMP questions
and guidance

Select other
sources of
guidance

Tailoring at multiple levels

Create a new plan

Please select from the following drop-downs so we can determine what questions and guidance should be displayed in your plan.

If applying for funding, select your research funder.

Otherwise leave blank.

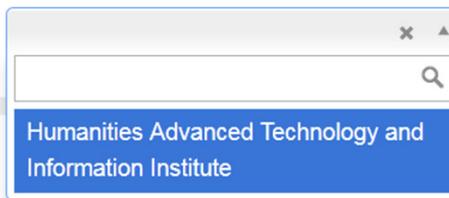
Medical Research Council

To see institutional questions and/or guidance, select your university?

You may leave blank or select a different institution to your own.

University Of Glasgow

Unit



A search interface with a search bar and a results list. The results list shows one item: "Humanities Advanced Technology and Information Institute".

Tick to select any other sources of guidance you wish to see.

Digital Curation Centre

Create plan

Options to have questions
and guidance at institutional
and 'unit' level

Summary of what's in a plan

This plan is based on:

Funder | Economic and Social Research Council

[Answer questions](#)

[Export](#)

The ESRC requires that all applicants seeking ESRC funding include a statement on data sharing in the relevant section of the Je-S application form. If data sharing is not possible, the applicant must present a strong argument to justify their case.

Sections	Questions
Existing data	<ul style="list-style-type: none">- An explanation of the existing data sources that will be used by the research project (with references)- An analysis of the gaps identified between the currently available and required data for the research
Information on the data that will be produced	<ul style="list-style-type: none">- Methodologies for data collection- Data volume and data type, e.g. qualitative or quantitative data- Data quality, formats, standards documentation and metadata
Planned quality assurance and back-up procedures (security/storage)	<ul style="list-style-type: none">- Quality Assurance- Back-Up
Management and archiving of collected data	<ul style="list-style-type: none">- Plans for management and archiving of collected data
Overcoming data sharing difficulties	<ul style="list-style-type: none">- Expected difficulties in data sharing, along with causes and possible measures to overcome these difficulties.
Consent, confidentiality, anonymisation and other ethical considerations	<ul style="list-style-type: none">- Explicit mention of consent, confidentiality, anonymisation and other ethical considerations
Copyright and intellectual property ownership of the data	<ul style="list-style-type: none">- Copyright and intellectual property ownership of the data
Responsibilities for data management and curation	<ul style="list-style-type: none">- Responsibilities for data management and curation within research teams at all participating institutions

Overview of sections in a plan

The screenshot shows a web application interface for 'FDMP ONLINE'. At the top left is the FDMP logo. Top right features a 'Signed in as s.jones@arts.gla.ac.uk' link and navigation buttons for 'View plans', 'Create plan', 'About', 'News', and 'Help'. Below the header, a blue callout box contains the text 'Allows multiple phases'. The main area is titled 'My project (NERC Template)'. It displays a list of sections, each with a '+' icon to expand. The sections are: 'Organisation (3 questions, 0 answered)', 'Roles and Responsibilities (1 question, 0 answered)', 'Data Generation Activities (1 question, 0 answered)', 'In-Project Data Management Approach (1 question, 0 answered)', 'Metadata and Documentation (1 question, 0 answered)', 'Data Quality (1 question, 0 answered)', 'Exceptions or Additional Services (1 question, 0 answered)', 'New Datasets (3 questions, 0 answered)', and 'Third Party/Existing Datasets (1 question, 0 answered)'. A blue callout box at the bottom right describes the interface as a 'Summary page with dropdown buttons to expand and answer each section'. A blue box highlights the 'Outline DMP' and 'Full DMP' buttons in the top navigation bar.

Allows multiple phases

Signed in as s.jones@arts.gla.ac.uk ▾

View plans Create plan About News Help

No questions have been answered

My project (NERC Template)

Plan details Outline DMP Full DMP

Organisation (3 questions, 0 answered) +

Roles and Responsibilities (1 question, 0 answered) +

Data Generation Activities (1 question, 0 answered) +

In-Project Data Management Approach (1 question, 0 answered) +

Metadata and Documentation (1 question, 0 answered)

Data Quality (1 question, 0 answered)

Exceptions or Additional Services (1 question, 0 answered)

New Datasets (3 questions, 0 answered)

Third Party/Existing Datasets (1 question, 0 answered)

Summary page with dropdown buttons to expand and answer each section

Questions and guidance

The screenshot shows a user interface for managing data management questions. At the top, there are tabs for 'Plan details' (disabled), 'ESRC Data Management Questions' (selected), 'Share', and 'Export'. Below the tabs, there are two main sections: 'Existing data (2 questions, 0 answered)' and 'Information on the data that will be produced (3 questions, 0 answered)'. The second section is expanded, showing a rich text editor for entering data volume and type information. A large blue callout box contains the text: 'Easy-format text boxes to answer' and 'Can pre-populate boxes with examples / suggested answers'. To the right of the editor, there is an 'ESRC Guidance' box with instructions on creating new data descriptions and links to 'Guidance on data formats' and 'Guidance on documenting data'. Another 'ESRC Guidance' box is partially visible at the bottom. At the bottom left, there is a 'Save' button and a note 'Not answered yet'. The bottom section is collapsed, showing a rich text editor for data quality, formats, and metadata.

Plan details **ESRC Data Management Questions** Share Export

Existing data (2 questions, 0 answered) +

Information on the data that will be produced (3 questions, 0 answered) -

Data volume and data type, e.g. qualitative or quantitative data

B I Paragraph

Easy-format text boxes to answer

Can pre-populate boxes with examples / suggested answers

Save

Not answered yet

ESRC Guidance

Give a brief description of new data which you envisage creating. This information should include how the data will be collected (in line with the proposed research methods), their format (e.g. SPSS, Open Document Format, tab-delimited format, MS Excel), and how they will be documented.

Using standardised and interchangeable or open lossless data formats ensures the long-term usability of data. Clear and detailed data descriptions and annotation, together with user-friendly accompanying documentation on methods and contextual information, makes data easy to understand and interpret and therefore shareable and with long-lasting usability.

- [Guidance on data formats](#)

- [Guidance on documenting data](#)

ESRC Guidance

+

Data quality, formats, standards documentation and metadata

B I Paragraph

Answering questions

My project (ESRC Template) 1/12

Plan details **ESRC Data Management Questions** Share Export

Existing data (2 questions, 0 answered) +

Information on the data that will be produced (3 questions, 1 answered) -

Data volume and data type, e.g. qualitative or quantitative data

The project shall generate new quantitative data (Bristol Online Survey outputs, SPSS data and outputs), qualitative data (digital audio files, audio transcripts, digital photographic and video data, workshop outputs, NVivo files), and mapping data (TIFF files). Metadata, in the form of pdfs and Excel spreadsheets, shall be used to facilitate the management and archiving of these data. Data shall be stored in password-protected folders on the host institution's secure servers. Data transfer between the PI and Co-I shall take place via face-to-face meetings.

Notes who has answered the question

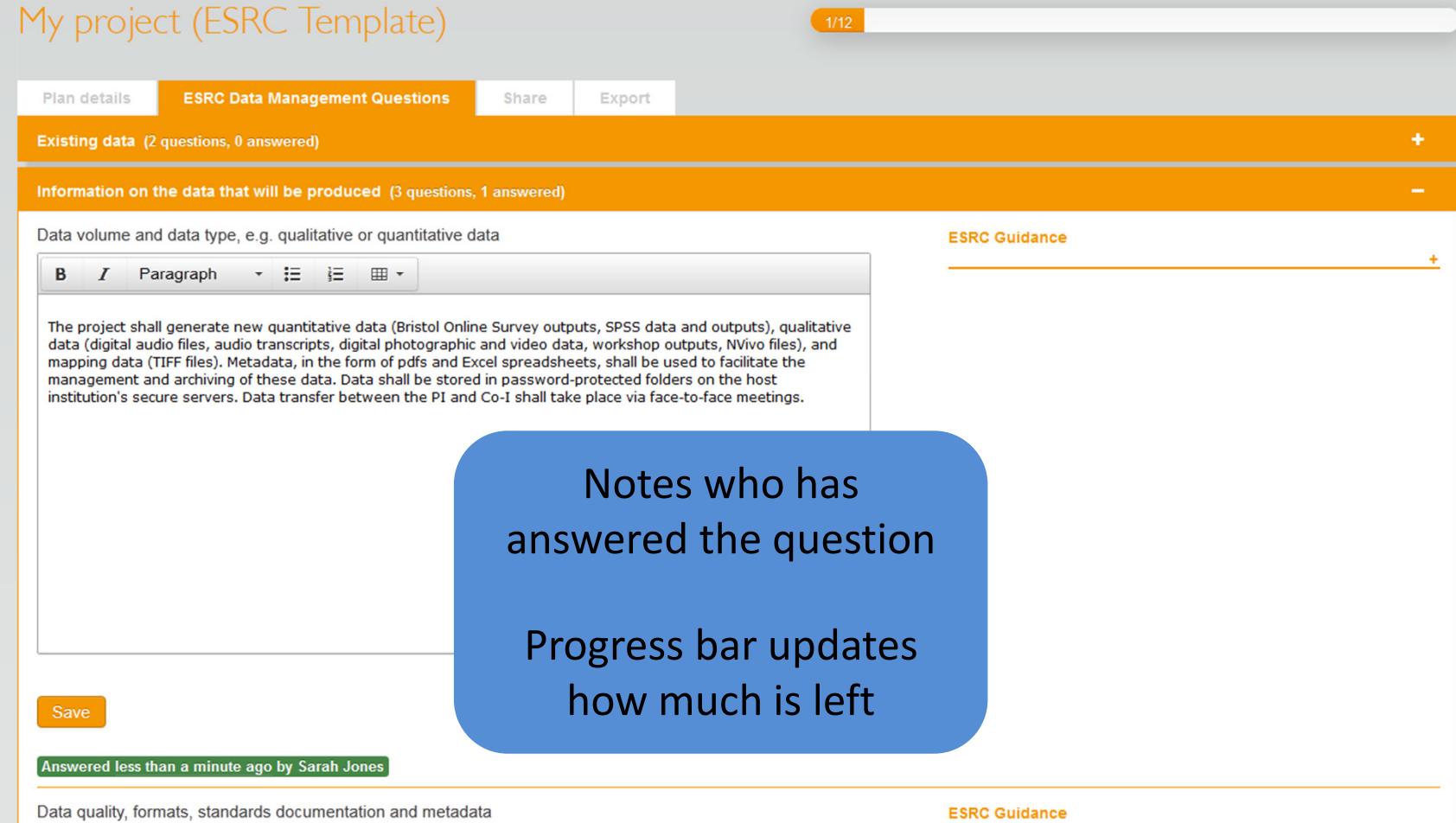
Progress bar updates how much is left

Save

Answered less than a minute ago by Sarah Jones

Data quality, formats, standards documentation and metadata

ESRC Guidance +



Sharing plan with collaborators

Withdrawal of services for young people

Plan details ESRC Data Management Questions Share Export

You can share your plan to allow others to read or edit it. Please insert the email address of the person you wish to share it with. You can leave a note to explain why you are sharing the plan, or what you wish them to look at.

Collaborators

User name	Permissions
Sarah Jones	Owner
Laura Molloy	Read only <input type="button" value="▼"/>

[Remove user access](#)

Add collaborator

Email

Permissions:

Read only

Allow colleagues to read-only, edit your plan or become co-owners

Exporting plans

Withdrawal of services for young people

ESRC Data Management Questions

Existing data

Questions	Answers
- An explanation of the existing data sources that will be used by the research project (with references)	The ESDS archive has been systematically searched using a series of search terms related to and derivative of 'public service withdrawal', 'impacts', and/or 'children' and 'young people'. Our overall assessment is that there are no datasets that will adequately address the aims of this project. The following datasets are tangentially related to this project.
- An analysis of the gaps identified between the currently available and required data for the research	Given the contemporary nature of the proposed project, we know of no datasets that cover users' (especially young people's) views and experiences of austerity measures and service withdrawal. The proposed project will therefore capture new and unprecedented data, for which there is an evident demand among national and regional stakeholders, decisionmakers and service-providers (see 'Pathways to Impact' attachment). Moreover, whilst several datasets incorporate longitudinal data, none includes data gleaned from oral history and multigenerational family interview methods central to the proposed project. The proposed project therefore represents an extension to the methods and data quality of the tangentially-related projects listed in section 1. Finally, the novel use of 'impact' activities to generate data (e.g. workshops, mapping software) exceeds the scope of all extant and even tangentially-related datasets.

Information on the data that will be produced

Questions	Answers
- Data volume and data type, e.g. qualitative or quantitative data	The project shall generate new quantitative data (Bristol Online Survey outputs, SPSS data and outputs), qualitative data (digital audio files, audio transcripts, digital photographic and video data, workshop outputs, NVivo files), and mapping data (TIFF files). Metadata, in the form of pdfs and Excel spreadsheets, shall be used to facilitate the management and archiving of these data. Data shall be stored in password-protected folders on the host institution's secure servers. Data transfer between the PI and Co-I shall take place via face-to-face meetings.
	Quantitative data shall be generated from an anonymous online survey (target 10,000 responses). The survey will be administered via Bristol Online Surveys (BOS) software: a secure, quality-assured, widely-used online survey tool. Data will be exported to SPSS for analysis.

Institutions can customise DMponline

Profile local support via custom
guidance and boilerplate text



Select / write
desired questions



Add your logo,
URL etc

A screenshot of a website header for "The University of Edinburgh". The header includes the university's logo, the text "The University of Edinburgh", a search bar, and a "Communications and Marketing" section. Below the header, there are navigation links for "Communications & Marketing home", "Marketing", "Events", "Press & Public Relations", "Publications", and "Web Publishing". A sidebar on the right contains sections for "University brand" and "Resources".

www.dcc.ac.uk/news/customising-dmponline

Want to use DM Ponline?

- Try out the beta at: <http://dmponline-beta.dcc.ac.uk>
- Request new features on GitHub:
<https://github.com/DigitalCurationCentre/DMPOnline>
- Contact us about collaboration on:
dmponline@dcc.ac.uk



because good research needs good data

Thanks – any questions?

DCC guidance, tools and case studies:

www.dcc.ac.uk/resources

Follow us on twitter:

@digitalcuration and #ukdcc