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# Qudex for Digital Futures: digitizing and publishing qualitative data

Louise Corti  
Collections Development and  
Producer Support

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UK Data Service

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# Digital futures project: rationale & aims

- Provide enhanced access to key ESRC-funded qualitative data via online **data browsing and exploration**
- Offer a mechanism for **reliably citing data** located in the system
- Project includes **large-scale digitisation** of precious and undigitized materials
- Maximise the **impact** from existing research and resource investments – demonstrate re-use



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# Our initial anticipated audiences

- Researchers: data re-use in activities that inform both research and policy. Expect some Innovative data-rich outputs
- Trainees: capacity building in social science data confrontation and analysis, enhancing data skills
- Citizen researchers: information seeking and knowledge exchange



# Users, data needs & enhanced outputs



USER TYPE	DISCIPLINE	DATA TYPES	CONTEXT	ENRICHED OUTPUTS
Academic Researcher	Hot topics	All	Rich	Enhanced Publication
Apprentice Researcher	Hot topics	Standard forms	Rich	Enhanced Dissertation
Teacher/Student	Tried & tested topics	Standard forms	Limited, specific	Enhanced teaching materials/Assessment
Citizen Researcher	Local issues/current affairs/trends	Sample data, simple data – real life issues/'facts'	Little	Own private research/Public visualisation

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# UK Data Service and its own needs

- We have one of the largest qualitative data collections– over 300 data collections
- A proportion of these have been digitised from older paper sources
- Currently users find and download these from our website
  - Not so easy to find, but study documentation good
  - No searching within collections
  - No file manifest shown until download
  - It can be a bit of guess work!
  - Cannot reliably cite parts of data



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# Finding & accessing qualitative data

- Search for “health”
- Retrieve catalogue record, e.g.
  - SN 4943: Mothers And Daughters: Accounts Of Health In The Grandmother Generation, 1945-1978
- View limited user guide
- Web download as RTF bundle (46 interview transcripts)



# Clues to content: study level metadata



Morbidity and mortality - Population, vital statistics and censuses  
Child development and child rearing - Social stratification and groupings  
Elderly - Social stratification and groupings  
Family life and marriage - Social stratification and groupings  
Gender roles - Social stratification and groupings  
Use and provision of specific social services - Social welfare policy and systems

**Depositor(s):**  
Blaxter, M., University of East Anglia

**Principal Investigator(s):**  
Blaxter, M., University of East Anglia

**Data Collector(s):**  
Blaxter, M., University of East Anglia

**Sponsor(s):**  
Economic and Social Research Council

**Abstract:**  
This is an enhanced qualitative study.

The research looked at beliefs and attitudes to **health** and medical care, inter-generational relationships, and social history of members of a grandmother generation. The original study included interviews with daughters as well; this collection contains only the grandmother interviews.

Grandmothers are asked extensive questions about their own **health** and the **health** of other family members. Details are provided on episodes of illness and remedies used, both home and **health** services. Specific topics of accidents, nutrition, dental care, and immunisation are covered.

More generally, grandmothers are asked about their views of their personal doctors and institutional **health** services. They give opinions on the quality of **health** care before and after the introduction of the National **Health** Service.

Grandmother-daughter relationships are explored, especially around the subject of offering and taking of medical advice concerning care for the grandchildren.

The collection has been enhanced by: conversion from paper to searchable RTF format by OCR and extensive editing and formatting of all interview transcripts. This collection will also be made available through [ESDS Qualidata Online](#).

**Main Topics:**  
The interviews cover **health** and social history, beliefs and attitudes to medical care, and intergenerational relationships.

There are discussions of the grandmothers' backgrounds, including jobs they held and where they lived.

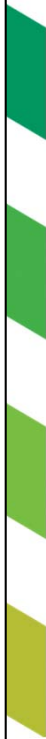
Many aspects of **health** are addressed: their own **health**, childhood diseases, the women's attitudes toward doctors and the National **Health** Service, including how medical care changed after the start of the NHS. The grandmothers are asked about causes of diseases, remedies and treatments used, and their thoughts on staying **healthy**.

Relationships with daughters are covered, focusing on whether the grandmothers offer medical advice, and if they do, whether it is accepted by their daughters.

**Coverage:**  
*Time Period Covered:* 1945-1978  
*Dates of Fieldwork:* 1977-1978  
*Index date:* 1945-1978  
*Country:* Scotland  
*Spatial Units:* No Spatial Unit  
*Observation Units:* Individuals  
*Kind of Data:* Textual data; Semi-structured interview transcripts

**Universe Sampled:**  
*Location of Units of Observation:* Subnational  
*Population:* Women living in a city in Scotland who had a child between 1950-53, who were at that time in social class IV or V, who had a daughter who: had a child or children born in the same city; and were in the same social classes at the time of the birth; and still lived in the city; and were in touch with the grandmother.

**Methodology:**  
*Time Dimensions:* Cross-sectional (one-time) study  
*Sampling Procedures:* Purposive selection/case studies  
*Number of Units:* 46  
*Method of Data Collection:* Face-to-face interview; Transcription of existing materials; Audio recording  
*Weighting:* Not applicable  
*Control Operations:*



# Data listing

Study Number 6124  
Being a Doctor: a Sociological Analysis, 2005-2006  
Nettleton, S

Interview ID	Gender	Description	Date of Interview	No of Pages	Text File Name
x001	Male	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	07/09/2005	36	6124int001
x002	Male	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	09/09/2005	41	6124int002
x003	Male	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	09/09/2005	39	6124int003
x004	Female	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	13/09/2005	36	6124int004
x005	Male	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	13/09/2005	34	6124int005
x006	Male	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	14/09/2005	50	6124int006
x007	Male	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	21/09/2005	31	6124int007
x008	Male	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	21/09/2005	35	6124int008
x009	Male	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	22/09/2005	33	6124int009
x010	Female	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	22/09/2005	23	6124int010
x011	Male	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	22/09/2005	36	6124int011
x012	Female	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	27/09/2005	41	6124int012
x013	Female	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	27/09/2005	21	6124int013
x014	Female	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	30/09/2005	20	6124int014
x015	Male	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	05/10/2005	19	6124int015
x016	Female	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	05/10/2005	27	6124int016
x017	Male	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	07/10/2005	27	6124int017
x018	Male	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	17/10/2005	11	6124int018
x019	Male	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	19/10/2005	33	6124int019
x020	Female	Interview with a Hospital Doctor in a Multi-Ethnic Northern City	07/11/2005	21	6124int020
z001	Male	Interview with Hospital Doctor in Northern Tourist City	19/07/2005	50	6124int021
z002	Male	Interview with Hospital Doctor in Northern Tourist City	10/08/2005	45	6124int022
z003	Male	Interview with Hospital Doctor in Northern Tourist City	17/08/2005	56	6124int023
z004	Male	Interview with Hospital Doctor in Northern Tourist City	07/11/2005	21	6124int024
z005	Female	Interview with Hospital Doctor in Northern Tourist City	14/11/2005	32	6124int025
z006	Male	Interview with Hospital Doctor in Northern Tourist City	15/11/2005	23	6124int026
z007	Male	Interview with Hospital Doctor in Northern Tourist City	16/11/2005	23	6124int027
z008	Female	Interview with Hospital Doctor in Northern Tourist City	17/11/2005	18	6124int028
z009	Male	Interview with Hospital Doctor in Northern Tourist City	18/11/2005	20	6124int029





# Download Zip

The screenshot displays a file explorer window with the following structure:

- File Name: mrdoc (Folder)
- File Name: rtf (Folder)
- File Name: 4943\_file\_information.rtf (Rich Text Format)
- File Name: read4943.txt (Text Document)

The secondary window shows the contents of the 'rtf' folder:

File Name	File Type	Modified	Size
4943int01.rtf	Rich Text Format	08/07/2004 12:...	108,561
4943int02.rtf	Rich Text Format	08/07/2004 13:...	50,442
4943int03.rtf	Rich Text Format	08/07/2004 13:...	140,718
4943int04.rtf	Rich Text Format	08/07/2004 13:...	168,204
4943int05.rtf	Rich Text Format	08/07/2004 13:...	94,236
4943int06.rtf	Rich Text Format	08/07/2004 13:...	129,875
4943int07.rtf	Rich Text Format	08/07/2004 13:...	73,219
4943int08.rtf	Rich Text Format	08/07/2004 13:...	133,961
4943int09.rtf	Rich Text Format	08/07/2004 13:...	242,754
4943int10.rtf	Rich Text Format	08/07/2004 13:...	120,920
4943int11.rtf	Rich Text Format	08/07/2004 13:...	191,940
4943int12.rtf	Rich Text Format	08/07/2004 13:...	165,688
4943int13.rtf	Rich Text Format	08/07/2004 13:...	197,312
4943int14.rtf	Rich Text Format	08/07/2004 13:...	164,537
4943int15.rtf	Rich Text Format	08/07/2004 13:...	150,199
4943int16.rtf	Rich Text Format	08/07/2004 13:...	161,918
4943int17.rtf	Rich Text Format	08/07/2004 13:...	250,943
4943int18.rtf	Rich Text Format	08/07/2004 13:...	213,834
4943int19.rtf	Rich Text Format	08/07/2004 13:...	159,213
4943int20.rtf	Rich Text Format	08/07/2004 13:...	135,742
4943int21.rtf	Rich Text Format	08/07/2004 13:...	196,686

Service



# Typical rft transcript template

Study Name:  
Depositor:  
Interviewer:

Interview number:  
Interview ID: Firstname Lastname  
Date of interview:

## Information about interviewee

Date of birth:

Gender:

Marital status:

Occupation:

Geographic region:

I: Just one or two factual details first of all before we go on to your health and that...  
how old are you?

FL: I'm 58 in June.

I: What schools did you go to? Can you remember that far back!

FL: Oh... the last school was at Longside.. aye, ken Longside?

I: No, where is that?

FL: Peterheid Village... That was the last school.

I: Uh-huh, so you lived in Peterhead...

FL: No, Longside.

I: Longside. And, do you work at all? At the moment?

FL: Just look after my grandchildren. Like that... well, my grand-daughter comes in at  
night, well, her mither cleans the school... and I look after my grandson whose  
mother works... aye, that kind of thing. I take him in an' keep an eye on him.  
Well, he's at the school but I give him his dinner an' look after him at night till she  
comes an' picks him up.

I: Just one or two factual details first of all before we go on to your health and that...  
how old are you?

FL: I'm 58 in June.

I: What schools did you go to? Can you remember that far back!

FL: Oh... the last school was at Longside.. aye, ken Longside?

I: No, where is that?

FL: Peterheid Village... That was the last school.

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# Complex data collections

- SN 5801: Concepts of Healthy Eating Food Research: Phases I and II, 1992-1996
- 293 interview transcripts; 73 diaries; 6 observation field notes
- Not represented well at all in a DDI 2.X catalogue

*Geography:* Lewisian; Newport; Greater London; Pembrokeshire

*Spatial Units:* Unitary Authorities (England); Unitary Authorities (Wales)

*Observation Units:* Individuals; Families/households

*Kind of Data:* Textual data; Individual (micro) level; open-ended, semi-structured interviews; diaries

## **Universe Sampled:**

*Location of Units of Observation:* Subnational

*Population:* Men and women of all ages, black or white British, English and/or Welsh speaking, middle- and working-class backgrounds; Retail, catering and health professionals; Tourists in the Newport area.

## **Methodology:**

*Time Dimensions:* Cross-sectional (one-time) study

*Sampling Procedures:* Convenience sample

*Number of Units:* 293 interview transcripts; 73 diaries; 6 observation field notes

*Method of Data Collection:* Face-to-face interview; Observation; Diaries

*Weighting:* No weighting used

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# Satisfying modern-day users

- 21<sup>st</sup> Century system for delivering qualitative data
- Web-based data exploration system
- Interface should lower the barriers to non-academic users
- Explore data through a data journey
  - Find relevant **extract, examine in context, cite**
  - **Link data** to still and moving images, and other related research outputs



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# Metadata demands for the system

- Demands highly structured and consistently marked-up data
- Qualitative data requires object (file-level) descriptive metadata, e.g. interviews, audio-visual files, images
- Common metadata elements enable federated catalogues across providers and borders



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# Richer metadata = richer discovery

- Work on enabling rich description
- Combining DDI 2.5 and QuDex schema
- QuDEX allows identification of data objects:
  - Interview transcript or audio recording etc.
  - Relationship to another data object or part of data
  - Descriptive categories at the object level, e.g. mime type, interview characteristics, interview setting
  - Capacity to capture rich annotation of parts of data
- Qudex model in use (Schema at: [www.data-archive.ac.uk/create-manage/projects/qudex/](http://www.data-archive.ac.uk/create-manage/projects/qudex/))
- Object-level description = a lot of manual work!



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# System expectations

- **Search/browse for data**
  - Search /faceted browse of data - text in XML or PDF
- **Browse**
  - Faceted browse by categories: study-level topics; data types; interview/object facets, e.g gender, geography
- **Display no. hits; data in lists**
  - Word in paragraph; thumbnail image/pdf; AV link
  - Context: other related objects, in system or outside
- **Access full object**
  - View data, key metadata and related links
  - Get citation for part of data



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# System assumptions – phase I

- BaseX for metadata storage; Java loading; Solr search
- Data must be fully prepared on loading/publishing to the system. Data not ‘managed’ within the system
  - Mark-up, metadata, relationships all pre-defined
  - Pre-defined GUIDs to be used for citation (DOI + drilldown)
- Cannot search audio-visual data content
- Simple metadata mark-up tool created
- Technologies for user interface will be .net
- No download of data collection/subset - route to the UK Data Service
- No user-annotation possible in this phase, e.g. adding coding or comments





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# Digitisation of key data sources

## Selectively digitize paper-based materials:

- original survey questionnaires
  - interviews
  - handwritten field notes, essays
  - diagrams
  - photographs
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- Wide consultation to choose sources: user-driven, not archival
  - Large digitization budget



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# Digitising textual data

## Create image file

- used for poor typeface, handwritten, text with tables and graphs
- anonymise a copy with black marker prior to scan
- scan and save as TIFF image file

## Create searchable PDF

- collate TIFFs and convert to PDF (Adobe Acrobat)
- bookmark PDF file for navigation, with contents page and headings

## Create rich text: optical character recognition (OCR)

- convert TIFF to RTF format
- requires detailed checking and proofreading
- XML mark-up using TEI

## Transcription

- Selective transcription method
- create consistent structure; templates
- XML mark-up using TEI



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# Timelines and deliverables: 18 months

Nov 12 – March 13

- Requirements gathering and technical specification work, making use of project consultants and users
- Mark-up of test data collections in Qudex
- Mark-up of XML example text in TEI

April – June 13

- Metadata and data (XML) mark-up defined and signed off
- Metadata mark-up tool developed
- Tech spec for system finalised
- Collections scoped and selected for digitisation



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# Timelines and deliverables

## June – December 13

- Data digitization and mark-up of 10-15 collections
- Data loading system and user interface build
- Investigate methodology for permanent citation of data extracts

## October 13 – Feb 14

- Working with key users to create outputs; teaching and research
- Create an enhanced publication linking to the live system
- Launch system with data – open and closed



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# Questions

Louise Corti

[corti@essex.ac.uk](mailto:corti@essex.ac.uk)

