Incentivising Uptake of Metadata in the Social and Behavioural Sciences

Louise Corti
Collections Development and
Producer Support

EDDI 14 London December 2014





Through our evangelising we are all incentivising



Britpop, BritArt... Britmetadata





Definition of incentivise (OED)

Motivate or encourage (someone) to do something; provide with an incentive:

Origin

late Middle English: from Latin *incentivum* 'something that sets the tune or incites', from *incantare* to **chant** or **charm**'.



My conceptual definitions of Incentivise

- Evangelise
- Demonstrate
- Persuade
- Cajole
- Coerce
- Beg
- Terrify



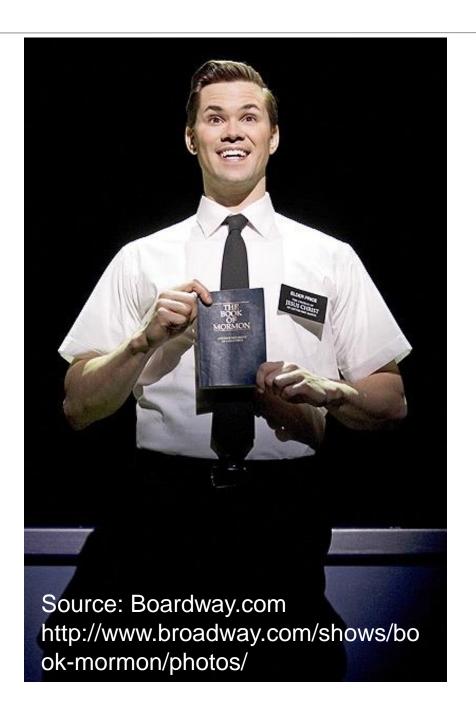


Operationalising concepts (tactics)

- Evangelise

 it really is the best thing since.... You need it in your life
- Demonstrate Look at this …you'll want one too!
- Persuasion/cajole it'll make you look good
- Encouragement go on, be an early adopter!
- Coerce you should be …everyone else is. You'll look bad if you don't…
- Beg Please, it will help us enormously











Who needs incentivising?

Survey owners and producers

Researchers sharing data

Publishers of data

One's own organisation



Survey producers

UK Data Service (very) short brochure

Closer portal

 Making survey metadata reusable across the lifecycle

LifeStudy plans



Short brochure for survey products

- Worked closely with data owners and producers
- Existing information too complex
- What is really expected!
- Transferrable information

Not a bible







Sticks?

Specify data documentation requirements in the commissioning tender for fieldwork

Example

The Centre for Longitudinal Studies (CLS) currently commissions the national cohort studies: the Millennium Cohort Study; the National Child Development Study; the 1970 British Cohort Study and the Longitudinal Study of Young People in England. CLS has started to expect as a deliverable the Computer Assisted Interviewing (CAI) implementation as a Data Documentation Initiative (DDI) compliant XML file, and a file that maps the CAI question to the data variables.

- Mapping between questions and data outputs
- Improved readable questionnaire for end users





CLOSER project

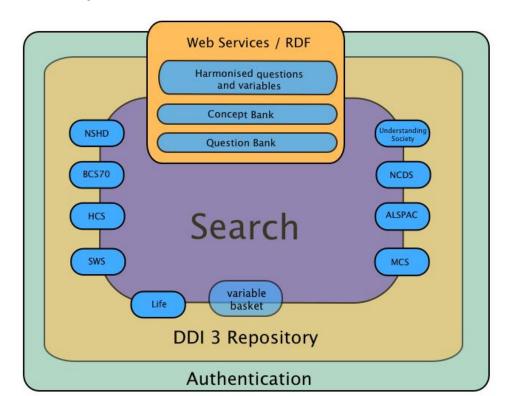
- ESRC/MRC jointly funded discovery service
- 9 long-running birth cohorts & longitudinal studies
- Drivers for project
 - Harmonisation (biomedical, socio-economic)
 - Capacity building
 - Data Linkage
 - Impact
 - Discovery
- Encourage use of existing data resources





Impact and discovery

- DDI 3.2
- Colectica Repository, SDK and Portal
- CADDIES questionnaire entry tool (CLS)
- Manual entry & controlled workflow





CLOSER Incentives

- Jane Elliot key incentive to getting key studies on board
- And some £££
- CLS did all the enhancement work
- Data managers
 - √ happy to be part of peer group
 - ✓ rewarding to to go back and look at data
 - √ liked a shared controlled vocabulary
 - ✓ received Colectica training and local installation
 - √ variable to questionnaire mappings useful
 - ✓ liked visibility of their study in the CLOSER platform





Incentivising established survey Pls

- Challenge to get established/ older PIs to recognise the benefits of enhancing metadata
- Midlife study in the US (MIDUS) quite unique!
- Help them 'See the light'

For this we need to show something very cool





- 8 REFUSED/MISSING
- 9 INAPP

Variable Details

Concept

Perceived satisfaction

qstnLit

At present, how satisfied are you with your LIFE? Would you say A LOT, SOMEWHAT, A LITTLE, or NOT AT ALL?

preQTxt

And now a few questions about you.

Appears Within

- ⊕ B Data Files (1)

Ratings

Rating:

Be the first to rate this item.

My Rating



Survey production lifecycle

Beset with manual processes

Legacy systems



- Reluctancy to change or adapt systems
- Hard to embrace new ways disruptive



Typical process

 Manual questionnaire entry (doc/excel/database/XML)

Export to word

Deliver to survey agency



Transfer to SPSS Data Collection

Export SPSS and PDF/word questionnaire



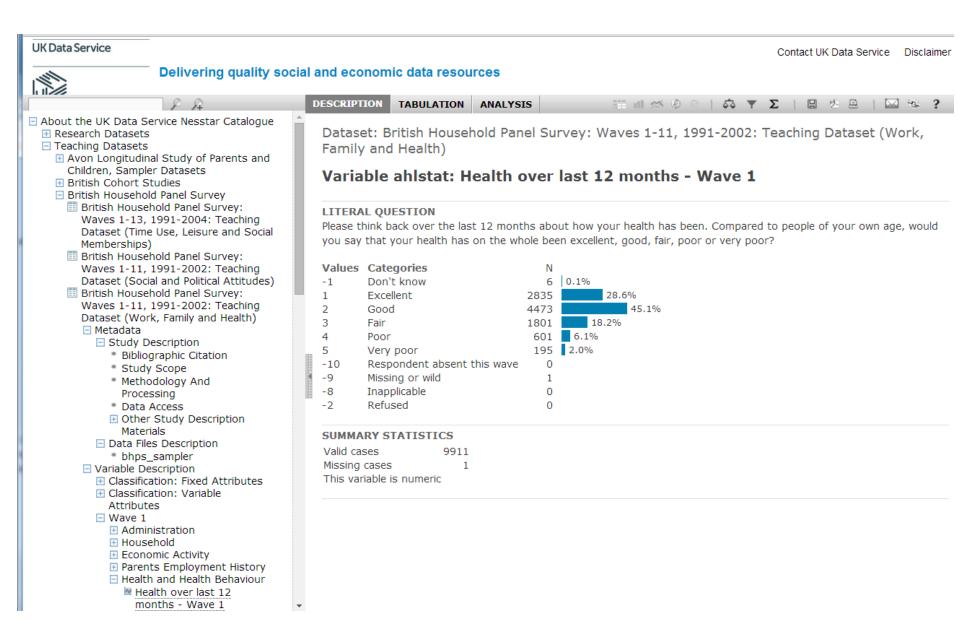
Metadata publishing

- Data documentation systems and question banks
- Data exploration systems
- Hard to match up Q and Variable information
- So much manual work

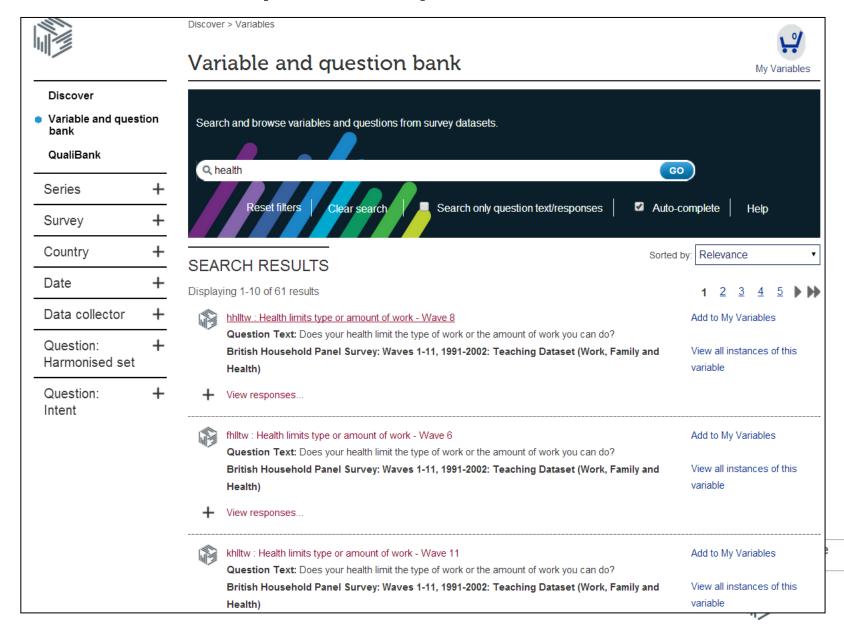
Must do better....



Published outputs – online access



Published outputs – question bank



High Level GSIM

Questionnaire design

- Questionnaire Specification / implementation validation
- Output validation
- Questionnaire capture

Data output

- · Data editing / cleaning
- Output definition

Data ingest

- Data validation
- · Business rule validation
- Security implementation

Data processing

- · Business rule validation
- Harmonisation

Data output

- Question / data mapping
- Questionnaire Documentation
- Data documentation

Data Archiving

Questionnaire Documentation



High Level Statistical Model - GSIM

Questionnaire design

- Questionnaire Specification / implementation validation
- Output validation
- •Questionnaire capture

Data output

- ·Data editing / cleaning
- Output definition

Data ingest

- Data validation
- Business rule validation
- Security implementation

Data processing

- Business rule validation
- Harmonisation

Data output

- Question / data mapping
- Questionnaire Documentation
- Data documentation

Data Archiving

- Questionnaire Documentation
- Data documentation



Gentle XML

- ISER bespoke Questionnaire Specification Language
- Blaise import by Michigan Questionnaire Documentation System (MQDS) DDI 3
- CLS using metadata (DDI 2.5)
- CLOSER using DDI 3.2 profile
- UK Data Archive published metadata (DDI 2.5)



USC Davis Center for Global Aging Research

Welcome | Please Register or Login

GATEWAY TO GLOBAL AGING DATA



Surveys	Topics	Graphs	Download	Create	Read	Help	About Us
at a Glance	at a Glance	and Tables	Data and More	Analysis Data	Literature		

Welcome to the Gateway to Global Aging Data

Please Login for Carts

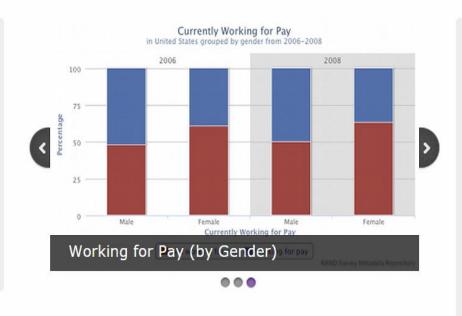
or Register to get an account.

Welcome to our new site. We have changed our name to the Gateway to Global Aging Data and moved our site to g2aging.org. If you previously had an account with us, you will need to re-register as a user. Please enjoy all the features of our new site.

About the Gateway

The Gateway to Global Aging Data is a platform for population survey data on aging around the world. This site offers a digital library of survey questions, a search engine for finding comparable questions across surveys, and identically defined variables for cross-country analysis.





What's New

- Slides from 2014
 Partner's Harmonization
 Workshop
- Version C of the Harmonized ELSA available
- Introduction to the Gateway to Global Aging Data Webinar
- Check out our booth at this years GSA
 Conference

ce

GATEWAY TO GLOBAL AGING DATA

Surveys Topics Graphs Download Create Read	Help
at a Glance at a Glance and Tables Data and More Analysis Data Literat	iro.

Home » Create Analysis Data » ELSA » ELSA 2002 » HE. Health » HEHELF

Please Login for Carts

or Register to get an account.

HEHELF

Location: ELSA » ELSA 2002 » HE. Health

Description: Health status

Item type: Question

Question text: Would you say your health is...

Answer type: Enumerated

Answer choices: 1. Excellent,

2. Very good,

3. Good,

4. Fair,

5. Or, poor?

Harmonized measure: This item is used in a Harmonized survey.

Associated variables:

hehelf 🕕

Flowchart: locate in flowchar

Topics: health in general

Concurrent items: HEHELF (ELSA 2008), HEHELF (ELSA 2006), HEHELF (ELSA 2004)

« previous item (HEGENH | next item (HEILL) »

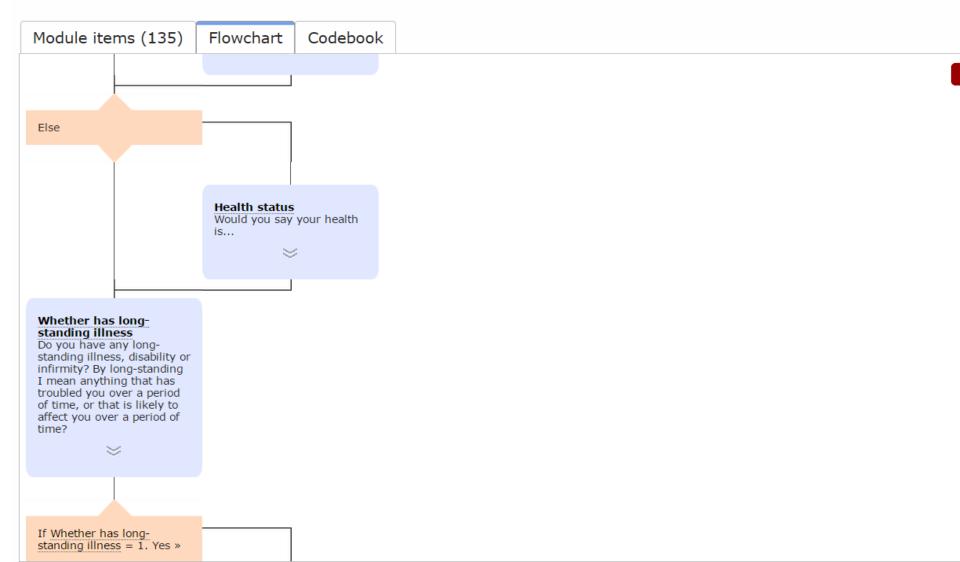
User Comments:

Be the first to comment!

Log in or register to comment.

HE. Health

The Health module concerns the respondent's state of health, functional limitations, and health behaviors. The main subsections are including self-reported general health, longstanding illness and limiting longstanding illness, eyesight, hearing, walking, awareness of disease, chronic diseases and psychiatric problems ever diagnosed by a doctor, falls, fractures sustained as a result of falls, joint repolarizes, respiratory symptoms, urinary incontinence, disability and functioning, receipt of formal and informal care in connection with IADLs, health behaviors including smoking, drinking, fruit and vegetable consumption, and self-report of level of physical activity.



Survey Metadata: Barriers & Opportunities Workshop: 26 June 2014





Meeting outcomes

- Great turn out and knowledge exchange!
- Even... some excitement
- Turn around of principles quickly
- Tweeting getting good responses
- Planning meetings with UK-IBM and smaller vendors
- Please be an advocate!





Data Documentation Initiative

What is DDI?

DDI Alliance

DDI At Work

Resources

Specification

RDF Vocabularies

Home

Survey Metadata Reusability and Exchange: A Call to Action for Questionnaire Documentation

Last Updated: Wed, 2014-11-05 15:06 — ddiadmin

View Endorsements

Add Endorsement

Produced by the "Survey Metadata: Barriers and Opportunities" Meeting June 26, 2014, London

Issued 31 October, 2014

This collaborative statement calls upon the survey design, production and archiving communities to take leadership in facilitating survey metadata exchange through adoption of shared metadata standards for questionnaire and data description.

Background

Statement of Shared Principles for Survey Metadata Reusability and Exchange

Currently there are some obstacles in creating good structured documentation for data that complies with international gold standards for enabling use and longer-term re-use.

The journey from questionnaire design using commercial software to Computer Assisted Interviewing (CAI) delivery in the field, and to delivery of data to owners and archives is currently inefficient and error-proper The metadata journey from owner to producer back to owner and to archive continues to use

ervice

New Life Study

STUDY

- UK-wide birth cohort study
- Data, environmental and biological samples
- Study design
 - 60,000+ pregnant mothers and their partners recruited through selected maternity units
 - birth component nationally representative sample of 20,000 babies recruited through the birth register
- Biological samples
 - from the mothers and their partners and babies
 - at delivery 'cutting-edge' samples relevant to assessment of infection, immunity and the microbiome





Life Study survey design

- Much thought upfront about reusability of questionnaire metadata
- New cohort study, so opportunities
- Bespoke data collection system using XML schema
- Incentivised by previous (local) poorer metadata practice



Researchers ...messy long-tail data

20 years of dreaded Data Policy

Self-deposit repository

 Jisc Managing Research Data Programme local pilots and activities

Review of data and incentives



ESRC research data policy

Research data should be openly available to the maximum extent possible through long-term preservation and high quality data management. (ESRC Research Data Policy, 2010)

- ESRC grant applicants planning to create data during their research include a <u>data management plan</u>
- ESRC award holders offer their research data to UK Data Service within three months of the end of their grant

Researchers who collect the data initially should be aware that ESRC expects that others will also use it, so consent should be obtained on this basis and the original researcher must take into account the long-term use and preservation of data. (ESRC Framework for Research Ethics, 2012)

UK Data Service ReShare

http://reshare.ukdataservice.ac.uk/

- A platform for sharing research data
- Data produced by UK social science researchers, and data of interest to social science researchers





Easy to publish and upload data

Logged in as Louise Corti Logout UK Data Service home Help About FAQ Contact

UK Data Service ReShare

Home

Legal

Review procedures



My data

Edit collection: Data Collection #851515



To deposit a data collection, you must accept the ReShare Terms and Conditions.

- I confirm that I am the owner of the copyright and associated intellectual property rights in the whole Data Collection or am otherwise lawfully entitled to grant this licence on behalf of each and every owner;
- I grant a non-exclusive, royalty-free licence to the UK Data Archive (a department of the University of Essex and not a separate legal entity) of Wivenhoe Park, Colchester, CO4 3SQ (the "University") to hold, make copies of, and disseminate copies of the Data collection, in accordance with the access conditions I will specify when uploading data files: open data accessible to users without registration; or safeguarded data accessible to users registered with the data services provided by the UK Data Archive.



Save for later Cancel

The UK Data Service is funded by the ESRC with contributions from the University of Essex and the University of Manchester. © Copyright 2012-2014 University of Essex and University of Manchester. All rights reserved.

Home Terms and conditions Cookies

ata Service

Collection period: Date from: Date to:

1 October 2008 30 September 2012

Email

Country: United Kingdom

Data collection method: Collection of information from official documentation across several countries

Observation unit: Organisations, Text units

Kind of data: Alpha-numeric

Type of data: Qualitative and mixed methods data

Resource language: English

Access and Administration

Data sourcing, processing and

preparation:

Information from various sources, including the International Bureau of Fiscal Documentation

Copyright holders:

Name
Devereux, Michael

Email Affiliation
Unspecified University of Oxford

Affiliation

ORCID Unspecified

Contact:

Name Devereux, Michael

michael.devereux@sbs.ox.ac.ukUniversity of Oxford

ORCID Unspecified

Notes on access:

None

Publisher: Economic and Social Research Council

Last modified: 28 Apr 2014 22:42

AVAILABLE FILES

Data

CBT_Tax_database.xlsx

Documentation

+ CBT Tax_database_description.pdf







Variables:		
Name:	Format	Description
country	3 digit string	3 digit ISO Code
year	4 digit number	Calendar year (NOT fiscal year)
top_corp_tax_rate	Numeric, not in %	Top statutory corporate tax rate at central government level – excluding eventual surcharges, on distributed profits
surcharge	Numeric, not in %	Surcharges on corporate tax
local_top_corp_tax_rate	Numeric, not in %	Top statutory corporate tax rate at lower government levels
local_tax_deductible	Numeric, not in %	This variable takes value 0 if no local tax is applicable or local corporate tax payments are NOT deductible from central government corporation tax, 1 if local taxes are deductible from central taxes, e.g. 0.5 if 50 percent are deductible
local_is_average	Dummy	0 if no local tax or if the local tax of a particular place is used. 1 if the local corporate tax rate is an average of all provinces
local_is_typical	Dummy	O if no local tax or if the local tax an average of all provinces. 1 if the local corporate tax rate is for a typical place (mostly economic capital)
total_corp_tax_rate	Numeric, not in %	Sum of federal tax rate, local tax rate taking into account surcharge and deductibility of local taxes





Self-upload guidance....

- Lots of it...guides, webinars, hand-holding
- Still some poor metadata
 - file naming; data inventories; variable names
- Review criteria are explicit

More comms work to do!

Incentives coming through 'star' quality rating



Guidance on data review

OIL Data Jei Vice ReShare

Home

Legal

Review procedures



ReShare Data Review Documentation

The UK Data Service reviews each data collection submitted to the ReShare repository for disclosure risk, copyright breaches, validity of file formats and level of documentation before publishing the collection. The quality or scientific validity of research data is not evaluated.

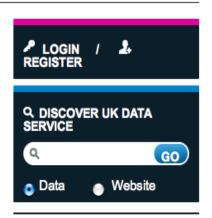
All numerical data files and at least a 10% random sample of textual data files are reviewed.

Non-English language data files are checked if a staff member of the UK Data Service is familiar with the language.

Any concerns, changes needing to be made to data files, or requests for additional documentation are communicated to the data depositor for actioning.

Data review comments and actions taken are noted in the data collection metadata record, as provenance information for the data collection.

Review procedures



QUICK ACCESS TO

Deposit data collection

Service

1. Generic project-level checks:

Qualitative research metadata

- Years of evangelism!
- Qualitative metadata standard QuDEx
- Successful implementation in QualiBank
- Working with qualitative researchers
- DDI working group model





Interview with Mr. Keble

Discover

Variable and question bank

Create citation

Audio Images External resources Collection documentation

Male

Access this coll-

QualiBank

DETAILS

Sex:

Collection ID (SN): 2000

Principal investigator:

Title: Family Life and Work Experience Before 1918, 1870-1973

Lum

Thompson, P., University of Essex. Department of Sociology

Lummis, T., University of Essex. Department of Sociology

Age group: 65-74

Socio-economic status: Semi-routine

Region: East of England

Licence: Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Licence.



Additional metadata

Idno: 2000int001

No. pages: 55

Placename: Colchester, Essex

Date of interview: 1950

R marital status: Married

R occupation: Postman

INTERVIEW TRANSCRIPT

DETAILS

Collection ID (SN): 2000

Family Life and Work Experience Before 1918, 1870-1973 Title:

Principal investigator: Thompson, P., University of Essex. Department of Sociology

Lummis, T., University of Essex. Department of Sociology

Historical note: Movement of rural populations to urban centres led to the decline of many small-scale village tradesmen.

However larger villages could still support business such as wheelwrights and blacksmiths that were central to

the local economy.

Image description: Three generations of a family pose for a photograph in front of the family home and business c.1904. Behind

them are various works in progress for these wheelwrights including an urban district council wheelbarrow.

Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Licence. Licence:



+ Additional metadata

IMAGE





Incentives

- QualiBank system very simple and appealing
- Usability easily understood
- Value of metadata appreciated
- Uptake of rich object-level metada





Data publishers

- Data Centres
 - Inspiring catalogues
 - Online browsing systems
- Institutional Repositories
- Journals
 - Transparency agenda and data review
- Worth investing in high quality





Discover at UK Data Service



Discover

Variable and question bank

QualiBank

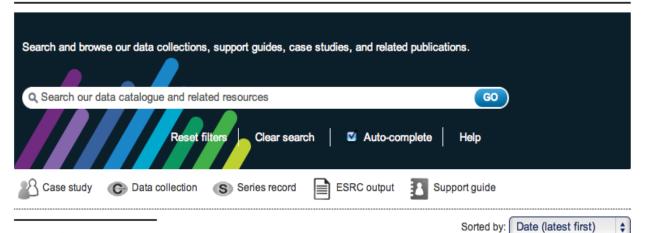
Type

- ✓ Data collections (6297)
- Series (64)
- Case studies
 (162)
- ESRC outputs (13377)
- Support / how to guides (170)

Refine

Subject +

Discover



SEARCH RESULTS

Displaying 1-10 of 6361 results

SN 2000087 National Awareness and Early Diagnosis Initiative: Cancer Awareness Measures Description:

The purpose of the Cancer Awareness Measure (NAEDI-CAM) is to facilitate accurate and sensitive surveillance of public awareness of cancer over time, identify information needs,...

SN 2000086 English House Condition Survey
Description:

The English House Condition Survey (EHCS) was a national survey of housing in England, commissioned by the Department for Communities and Local Government (DCLG). The survey was...

SN 2000085 National Cancer Patient Experience Survey Description:



Online instant data browsing

Nesstar social surveys

UKDS.stat aggregate global indicators

InFUSE aggregate census data

QualiBank qualitative data



TABULATION DESCRIPTION ANALYSIS Dataset: British Social Attitudes Survey, 2013 Variable PartyIDN: R s political party identification: Q251 LITERAL QUESTION IF 'yes' AT [SupParty] OR AT [ClosePty]: Which one? IF 'no' OR DON'T KNOW AT [ClosePty]: If there were a general election tomorrow, which political party do you think you would be most likely to support? Values Categories Ν Conservative 818 25.2% 1 32.4% Labour 1052 2 Liberal Democrat 194 6.0% 55 1.7% Scottish National Party 4 15 0.5% 5 Plaid Cymru 34 1.0% Green Party 6 UK Independence Party (UKIP)/Veritas 5.6% 28 0.9% British National Party (BNP)/ National Front 8 RESPECT/ Scottish Socialist Party (SSP)/ Socialist Party 0.2% 6 9 Other party (WRITE IN) 0.3% 10 Other answer (WRITE IN) 15 0.5% 11 17.9% 12 None 581 Refused to say 57 1.8% 20 Don't know 6.1% 98 197 Refusal 0.0% 0 99 -1 Not applicable 2 SUMMARY STATISTICS Valid cases 3242 Missing cases 2 This variable is numeric INTERVIEWER INSTRUCTIONS DO NOT PROMPT

UNIVERSE IF 'yes' AT [SupParty] OR 'yes', 'no' OR DON'T KNOW AT [ClosePty]

Institutional Repositories

- Huge movement in UK. ££££ Jisc MRD Programme
- Pilots and some now set up and mature
- 2 years + to agree reach software and metadata requirements
- Lots of arguing over minimal requirements
 Politics Funder or not?
- Lots of standing up and saying DDI



data.bris repository

Social Sciences and Law

Social

Google+

☑ Twitter

Facebook

A License

Non-Commercial
Government License
for public sector
information

1834 Parisian deaf-mute banquet

Alternative title	Banquet des sourds-muets parisien 1834
Creator(s)	Michael Gulliver
Funder	Economic and Social Research Council
Publication date	15 Aug 2013
Language	eng
Publisher	University of Bristol
DOI	10.5523/bris.1ghwfnggawvoo1qyih0 xomzemp
Compressed dataset	http://data.bris.ac.uk/datasets/1gh wfnggawvoo1qyih0xomzemp/1ghwf

vice

Research Data Registry and Discovery

- JISC pilot project to provide a coherent point of access to descriptions of UK research datasets
- Adapted Australian National Data Service (ANDS) software (ORCA) for Research Data Australia
- Metadata profiles used by data centres and institutional repositories mapped to Registry Interchange Format – Collections and Services (RIF-CS)
- Metadata imported via OAI-PMH or other modes





Search for Research Data



Browse by Subject Area



Browse by Map Coverage



Advanced Search

What's in Research Data Australia



Collections (99008)

Research datasets or collections of research materials.



Parties (25701)

Researchers or research organisations that create or maintain research datasets or collections.



Activities (40731)

Projects or programs that create research datasets or collections.



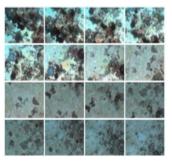
Services (187)

Spotlight on research data

CATAMI:

Collaborative and Annotation Tools for Analysis of Marine Imagery and Video

In recent years, ecologists and biologists have increasingly relied on remote video and image-based methods to examine and monitor marine habitats, particularly those



beyond easy diving depth. These data streams are currently being collected by the end user community at sites around Australia using modern image and video based tools including Baited Remote Underwater Video Systems (BRUVS), Autonomous Underwater Vehicle (AUV), Remotely Operated Vehicle (ROV) and Underwater Towed Video (UTV) systems. Transforming raw visual data into quantitative information useful for science and policy decisions requires substantial effort by human experts. The University of Sydney has led a collaborative project to develop common labelling standards, and to transform and collate existing datasets that support marine research across Australia. The result is CATAMI: an online data management and image annotation system for marine ecologists.

Access the CΔTΔMI service through Research Data Australia Tataservice



PHP crosswalks

- DDI Codebook 2.5
- UK GEMINI.2
- OAI Dublin Core (oai_dc)
- EPrints (ReCollect) metadata export scheme
- DataCite v3 from DataCite's OAI-PMH endpoint;
- MODS V3.5 from DSpace-powered OAI-PMH endpoints
- RIF-CS not ideal
- CKAN being explored



Incentivising new registry contributors

Pilot repository as a showcase

 Recognition by new contributors of metadata requirements

- Poor metadata looks shoddy!
- Training useful



Journals

- Science journals have data policies for data sharing
 - Science, Nature, PLOS ONE
 - "PLOS ONE will not consider a study if the conclusions depend solely on the analysis of proprietary data" ... "the paper must include an analysis of public data that validates the conclusions so others can reproduce the analysis."
- BioMed Central <u>open data statement</u>
- Data underpinning publication accessible via a DOI
 - upon request from author
 - as supplement with publication
 - in public repository
 - in mandated repository (PANGAEA Elsevier)





Journals

Social science needs some motivation

- American Political Science Association (APSA)
 Council policies guiding data access and research transparency in political science
- Endorsement by journals
- Training in how to prepare and submit supporting data and sufficient metadata



Peer review of data

- Data centres do this but not for quality of methods
- Journals doing this replicability agenda
- No one single standard for 'quality'
- Make metadata quality explicit:
 - Collection description
 - Data description: file and variable names & labels
 - Relationships between tables/files



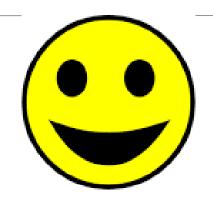
Incentivising our staff

- Not so many into DDI
- 'Language' barrier
- CESSDA expert seminars to share problems
- Engage in data processing and producer relations work



Some tips on incentivising

Speak a common language



- On DDI, do say it is stable and offer one version only
- Start with the lowest common denominator. Baby steps
- Show value shiny interfaces and examples!
- Where possible agree to help with the (initial) work
- Integrate into everyday workflows and research tools



CONTACT

UK Data Service

University of Essex Wivenhoe Park Colchester Essex CO4 3SQ

T +44 (0)1206 872145

E corti@essex.ac.uk

