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# Improving Discovery at the UK Data Service: a Systematic UX Journey

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UK Data Service

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University of Essex



# UK Data Service Partner Institutions



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# Starting point on our journey



Photo by David Iliff. License: CC-BY-SA 3.0. Retrieved from [https://de.wikipedia.org/wiki/Datei:Kings\\_Cross\\_Station\\_Platforms,\\_London\\_-\\_Sept\\_2007.jpg](https://de.wikipedia.org/wiki/Datei:Kings_Cross_Station_Platforms,_London_-_Sept_2007.jpg)

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# UK Data Service discovery: main tools



## **DATA CATALOGUE**

- search/browse all UKDS collections
- directs to a variety of access points



## **SPECIALISED DISCOVERY TOOLS:**

- Variable and Question Bank (variable/question-level)
- Qualibank (qualitative data)
- Infuse, Wicid, etc. (census data)
- and more....



## **BUILDING FOR THE FUTURE: Endeavour**

- new back-end metadata management system

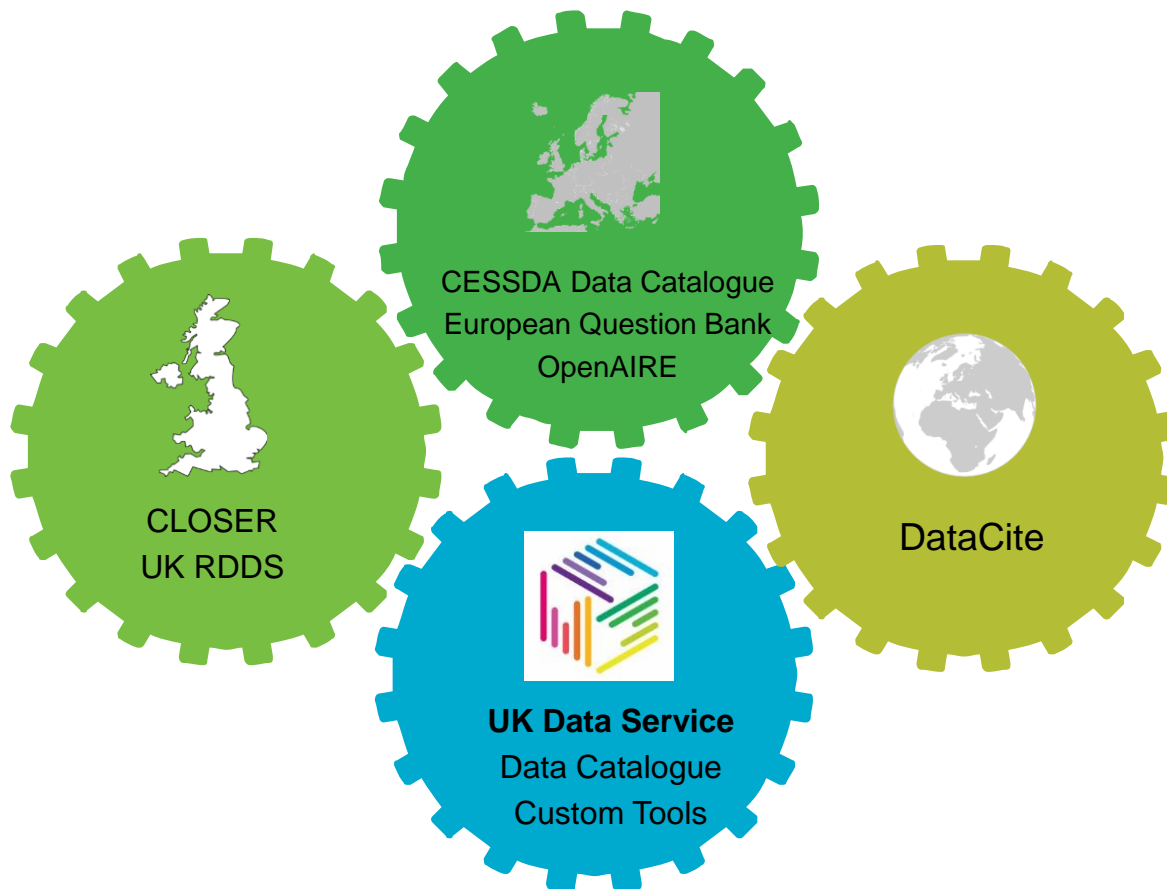


## **BUILDING FOR THE FUTURE: DSaaSP**

- Data Service as a Platform
- new cross-disciplinary, secure platform, delivering bespoke data products



# Broader discovery context



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# Discover

- Discover
- Variable and question bank
- QualiBank

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- Type +

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- Subject +

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- Date +

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- Data type +

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- Key data +

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- Country +

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- Data format +

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- Spatial unit +

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- Analysis unit +

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- Access +

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- Access tools +

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- Depositor +

Search and browse our data collections, support guides, case studies, and related publications.

GO

Reset filters
Clear search
 Auto-complete
Advanced search
Help

Case study
 Data collection
 Series record
 ESRC output
 Support guide
Guide to icons

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Results per page: 
Sorted by:

Displaying 1-10 of 1288 results 1 2 3 4 5 ▶▶

**SN 425 Merioneth Transport Survey, 1974**

Rees, G.L., University College of Wales, Aberystwyth. Department of Economics

+ [Full record...](#)

[Download/Order](#) | [DDI XML](#) | [Similar data collections](#)

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**SN 6922 ONS Opinions Survey, Climate Change and Transport Module, August 2010**

Office for National Statistics. Social Survey Division

+ [Full record...](#)

[Access online](#) | [Download/Order](#) | [DDI XML](#) | [Similar data collections](#)



# National Travel Survey, 2002-2016

[Documentation](#) | [Related Studies](#) | [Publications](#) | [Syntax](#)



[Access online](#)



[Download/Order](#)

[DDI XML](#)

## TITLE DETAILS

**SN:** 5340  
**Title:** National Travel Survey, 2002-2016  
**Persistent identifier:** [10.5255/UKDA-SN-5340-8](https://doi.org/10.5255/UKDA-SN-5340-8)  
**Series:** [National Travel Survey](#) [National Travel Survey, 1972-]  
**Depositor:** Department for Transport  
**Principal investigator(s):** Department for Transport  
**Data collector(s):** National Centre for Social Research  
**Sponsor(s):** Department for Transport

## CITATION

The citation for this study is:

Department for Transport. (2017). *National Travel Survey, 2002-2016*. [data collection]. 12th Edition. UK Data Service. SN: 5340, <http://doi.org/10.5255/UKDA-SN-5340-8>

[Select the text above](#) to add data citation in your outputs.

Select citation format:

XML citation formats: [CSL](#) [EndNote](#)

## SUBJECT CATEGORIES

Travel and transport

ervice

# The plan for the next phase in the journey



Photo by Stevie Spiers. License: CC-BY-SA 2.0. Retrieved from [https://commons.wikimedia.org/wiki/File:Train\\_tracks\\_-\\_geograph.org.uk\\_-\\_1321810.jpg](https://commons.wikimedia.org/wiki/File:Train_tracks_-_geograph.org.uk_-_1321810.jpg)

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# Projects to evolve discovery: running in parallel



## **USER EXPERIENCE PROGRAMME**

- improved coordination
- systematic integration



## **SHORT-TERM: DATA CATALOGUE ENHANCEMENT**

- improve existing system
- meet immediate user needs
- integration with CESSDA Data Catalogue (CDC)



## **LONG-TERM: DSaaP**

- develop entirely new system
- discovery & access features for a robust user experience

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# Scope and motivations to enhance data catalogue



## **BUILD UPON THE PAST**

- recent reviews of the data catalogue
- wealth of staff knowledge
- fix known problems



## **REVIEW ENTIRE SYSTEM**

- functionalities: navigation, retrieval, filtering, metadata
- UI: simplify, clarify, harmonise



## **IMPROVE AND EVOLVE**

- user needs
- new opportunities
- *strategic and user-led*

# Data catalogue enhancement: planned process



**USER NEEDS**

**USE CASES**

**REQUIREMENTS**

**DEVELOPMENT**

**RELEASE**



internal and external sources

articulate needs

select and prioritise MoSCoW

agile testing

release beta version  
user feedback iteration

**Every step of the process underpinned by UX specialists partnering with staff in various roles**



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# Be user-led: components to identify user needs



## **INTERNAL SOURCES**

- prior reviews
- web pop-up surveys
- usage statistics
- staff knowledge



## **ENVIRONMENTAL SCAN**

- peer data archives
- various types of search systems



## **USER SURVEY/USER INTERVIEWS**

- data searching behaviour in general
- use and effectiveness of data catalogue
- nearly 1,000 survey responses
- 11 interview participants
- closed/open questions and observed exercises

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Questions in the survey/interviews explored aspects like...



### **SEARCHING BEHAVIOUR IN GENERAL, e.g.:**

- How do you usually search for data?



### **USE OF UKDS DISCOVERY SYSTEMS, e.g.:**

- How do you normally find data through our website?



### **FUNCTIONALITY OF DATA CATALOGUE, e.g.,**

- How would you make the filters most useful?
- What key features, that are not currently available, would most improve the experience of finding and accessing data?

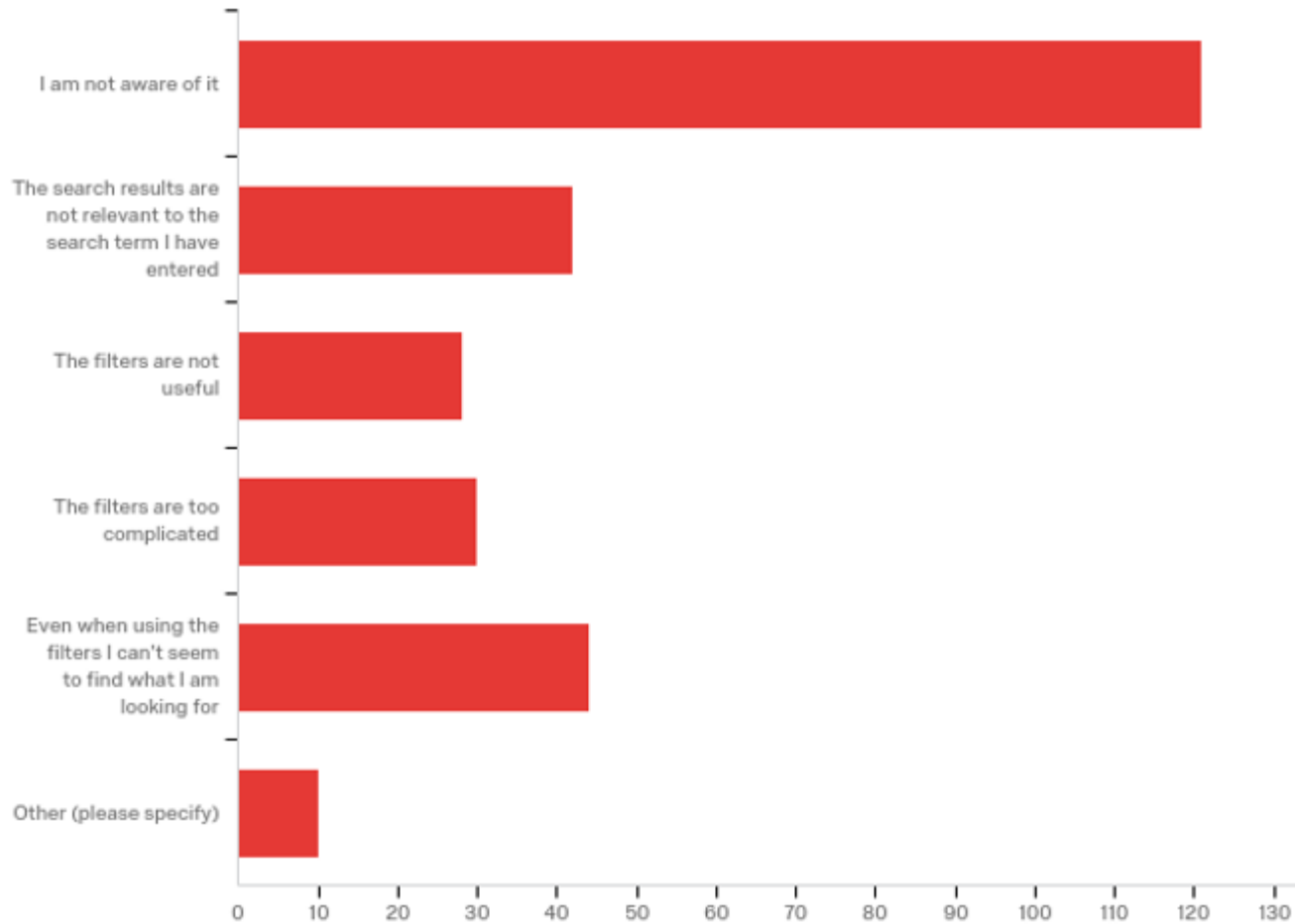


### **OBSERVED EXERCISES USING CATALOGUE, e.g.:**

- How would you find which studies are available on a topic?
- Looking at the Data Catalogue interface, do you know what all of the filters and icons mean?

# Survey responses included...

**Q3i** - What are the reasons you do not use Discover? Please select all that apply:



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# Qualitative and detailed analysis process



**EXTRACTED SURVEY AND INTERVIEW DATA, AND  
OTHER INFORMATION SOURCES**



**INPUT INTERVIEW TRANSCRIPTS INTO NVIVO**



**CODING AND ANALYSIS**



**CREATION OF USE CASES**



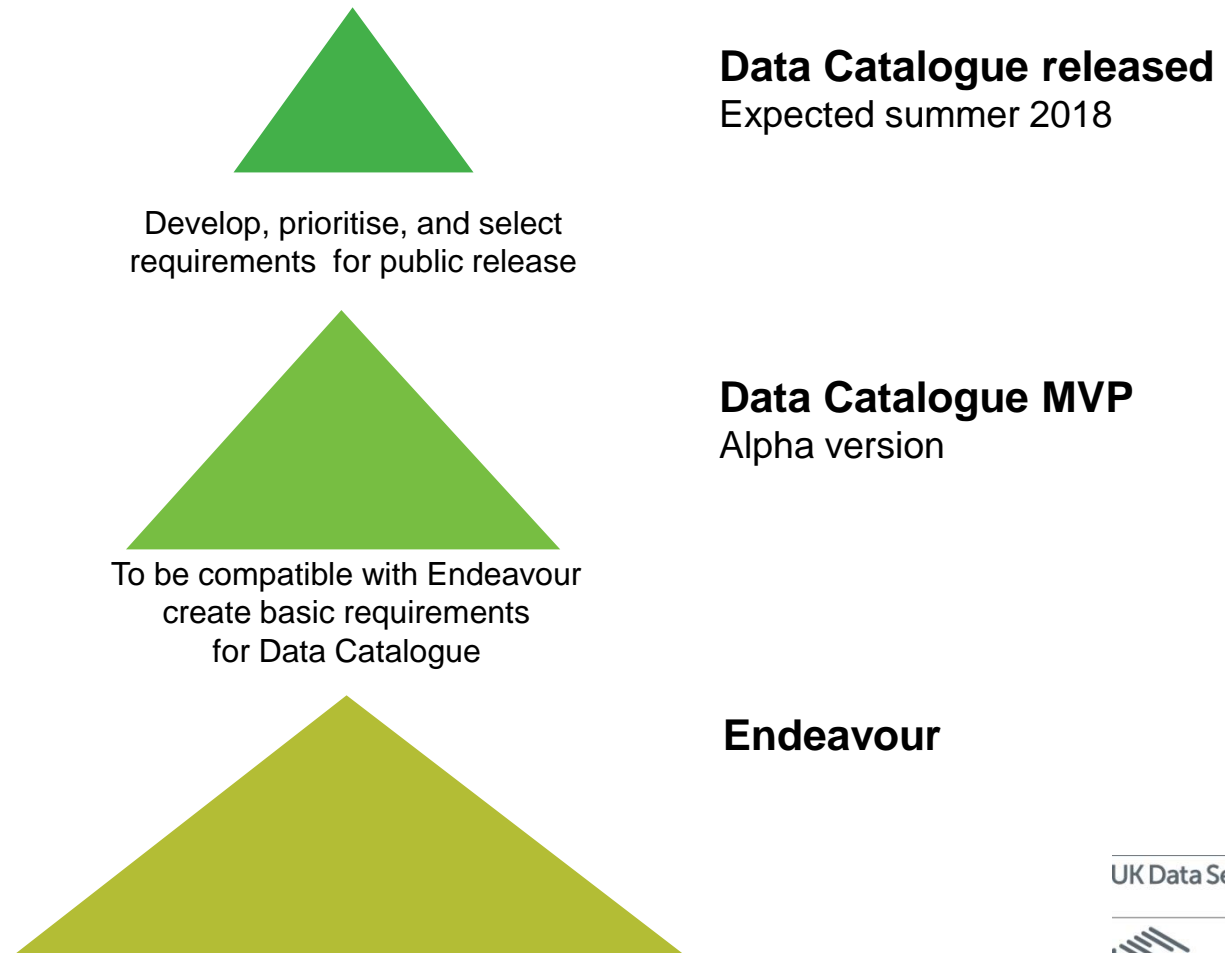
**CREATION OF REQUIREMENTS**

# New opportunities to further apply UX principles





# Modified plan: build new data catalogue from the ground up



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# Data catalogue enhancements for...



## LAYOUT

- home, filters, results, catalogue record



## SEARCHING

- including variables and datasets together



## BROWSING

- review, delete, add filters
- deeper subject integration with HASSET thesaurus



## RELEVANCE RANKING



## ACCESS

- clarity of paths and conditions
- use of shopping basket
- improved export functions and new linking features

# Use case example

USE CASE			
ID	As a.....	I want to....	So that I can...
	As a user...	I don't want to be overwhelmed by the number of facets	so that I am not confused

Product Area
Discover search

CURRENT EXPERIENCE ukdataservice.ac.uk	WAYS CURRENT EXPERIENCE COULD BE
Filters are nice but I suppose I don't use that many of them; there's something about the big list of detailed text filters that makes my heart sink each time; too many filters could prevent people finding what they want by being too specific; hide irrelevant filters	A large number of facets can be daunting

REQUIREMENT	MoScow	IDEAS & SUGGESTIONS
		Limit the filters to those most popular, perhaps display more when the search become more targeted or only display what is applicable

Use Case Justification
1 face to face 3 quali



# Requirements and MoSCoW example

Functional: Groupings	Object	Requirements	MoSCoW	Ways current experience could be better according to UX Analysis 2018	Google analytics
Search and browse functionality Simple search	Facets/Filters	<p>Review, refine and consolidate <b>existing</b> filters/facets.</p> <p>Core filters are</p> <ul style="list-style-type: none"> <li>a. Subject – New name: Topic</li> <li>b. Date - New name: Date from, Date to. Default From: 1970 with option to scroll further back.</li> <li>c. Country : The Country facet should include all countries where the data are available, not just the largest country unit, as is currently the case.</li> </ul> <p>Filters apply to both individual dataset and series unless otherwise stated.</p> <p>Wireframes are provided to illustrate this</p>	M	<p>1) display fewer options on the beginning page by a) limiting to most popular, b) only applicable ones, c) hiding lesser used or irrelevant filters</p> <p>2) make filters more prominent: a) time period, b) geography (country or region), 3) data study added to catalogue</p>	yes





"growing up in scotland" ✕

**STUDIES (3)**

**SERIES (3)**

Date from:  Date to:

[Refine date](#)

Subject:

Data Type:

Country:

[Reset filters](#)

Displaying 1 - 10 of 3 results for "growing up in scotland"

Page 1 of 1

Results per page:

10

Sort by:

Most recent

SN 58 | [Growing Up in Scotland: Sweep 5 Postcodes, 2009-2010: Secure Access](#)

Abstract copyright UK Data Service and data collection copyright owner. The Growing Up in Scotland (GUS) study is a large-scale longitudinal social survey which follows the lives of groups of Scotland's children from infancy through to their teens, and aims to provide important new information on...

[Read more](#)

SN 57 | [Growing Up in Scotland: Cohort 1, Sweeps 1-8, 2005-2015: Special Licence Access](#)

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[Read more](#)





st.ukdataservice.ac.uk/datacatalogue/studies/study?id=58

Copy study link

## Growing Up in Scotland: Sweep 5 Postcodes, 2009-2010: Secure Access

[Details](#) [Documentation](#) [Resources](#) [Access](#)

**Abstract** ▼

**Title details** ▼

**Citation and copyright** ▼

**Coverage, universe and methodology** ▼

**Topic classifications** ▼

**Thesaurus search on keywords** ▼



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# Guidelines and opportunities



## **COLLABORATE...**

- across diverse roles



## **DOCUMENT...**

- user needs throughout



## **PRIORITISE...**

- and select requirements



## **USE UP-FRONT PLANNING...**

- to anticipate interdependencies



## **BE FLEXIBLE...**

- and turn unexpected changes into new opportunities

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# Questions

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