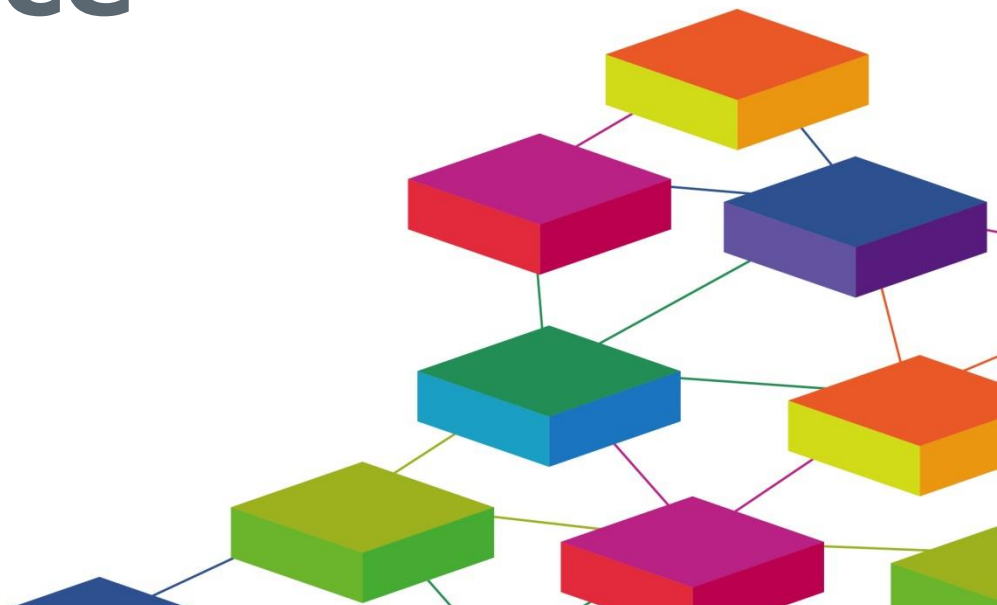
Consumer Data Research Centre

An ESRC Data Investment

The Consumer Data Research Centre and its Data Service

Sarah Sheppard
Project Manager



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Who we are…

- Bringing together world-class researchers from Leeds, UCL, Liverpool & Oxford.
- Funded by the Economic and Social Research Council as part of the Big Data Network Phase 2 Business and Local Government Data
  - Urban Big Data Centre
  - ESRC Business and Local Government Data Research Centre
  - Consumer Data Research Centre

CDRC Partners

UNIVERSITY OF LEEDS

UCL

UNIVERSITY OF LIVERPOOL

UNIVERSITY OF OXFORD

E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL

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What we do…

- Multi-institution laboratory that discovers, mines, analyses and synthesises consumer-related datasets from around the UK
- Our objective is to create a service for social science researchers, to harness the potential of consumer-related Big Data for the benefit of society.
- Creates, supplies, maintains and delivers consumer-related data to a range of end users, alongside a programme of research training and outreach activities.

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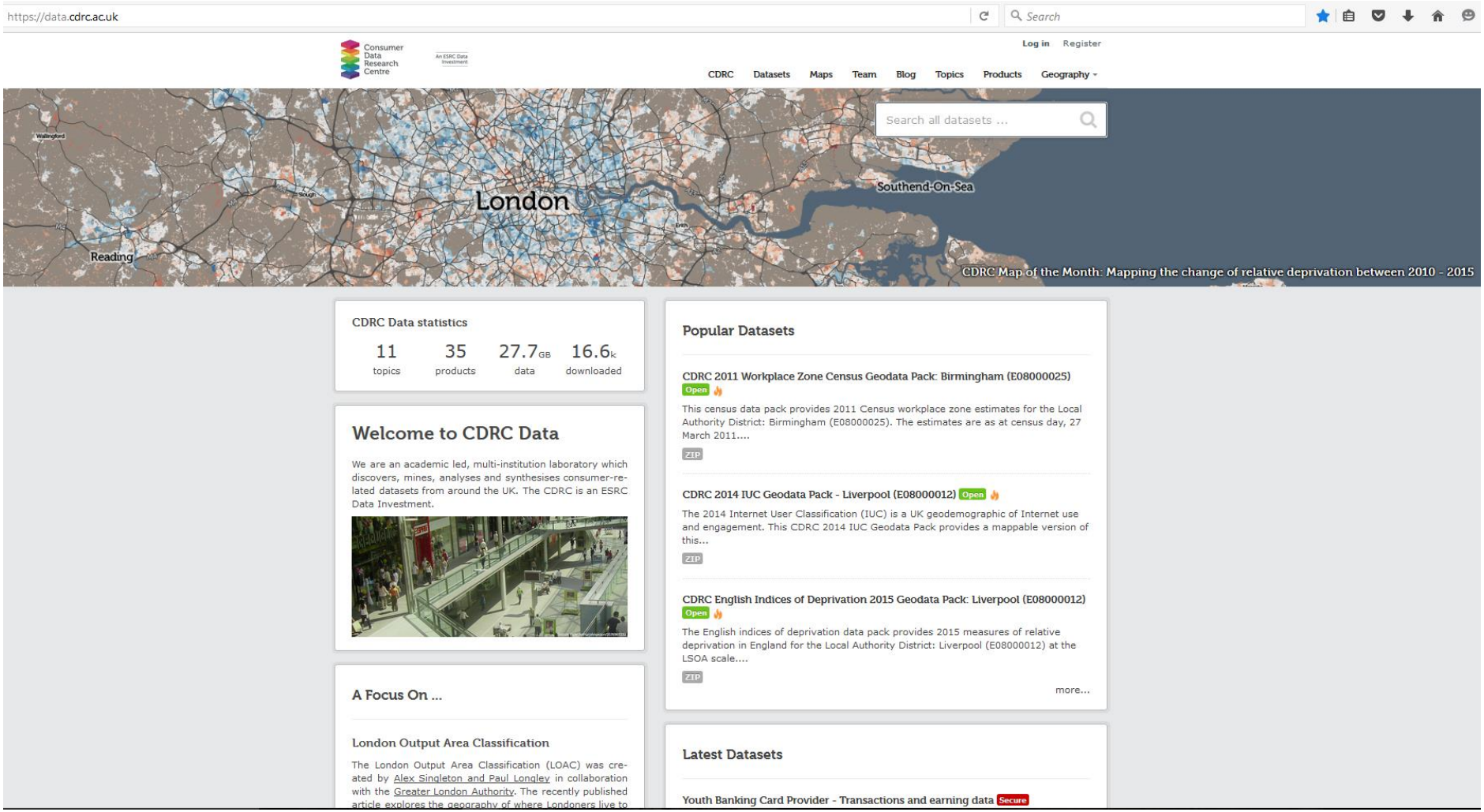
CDRC Data



https://data.cdrc.ac.uk

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Datastore aims…

- Catalogue all CDRC data deposits
- Attributes are searchable (Metadata)
- Provide access to CDRC Data Products
- Make life simple…
  - Visual and interactive interfaces
  - Training & Materials
  - Local Authority Datastores

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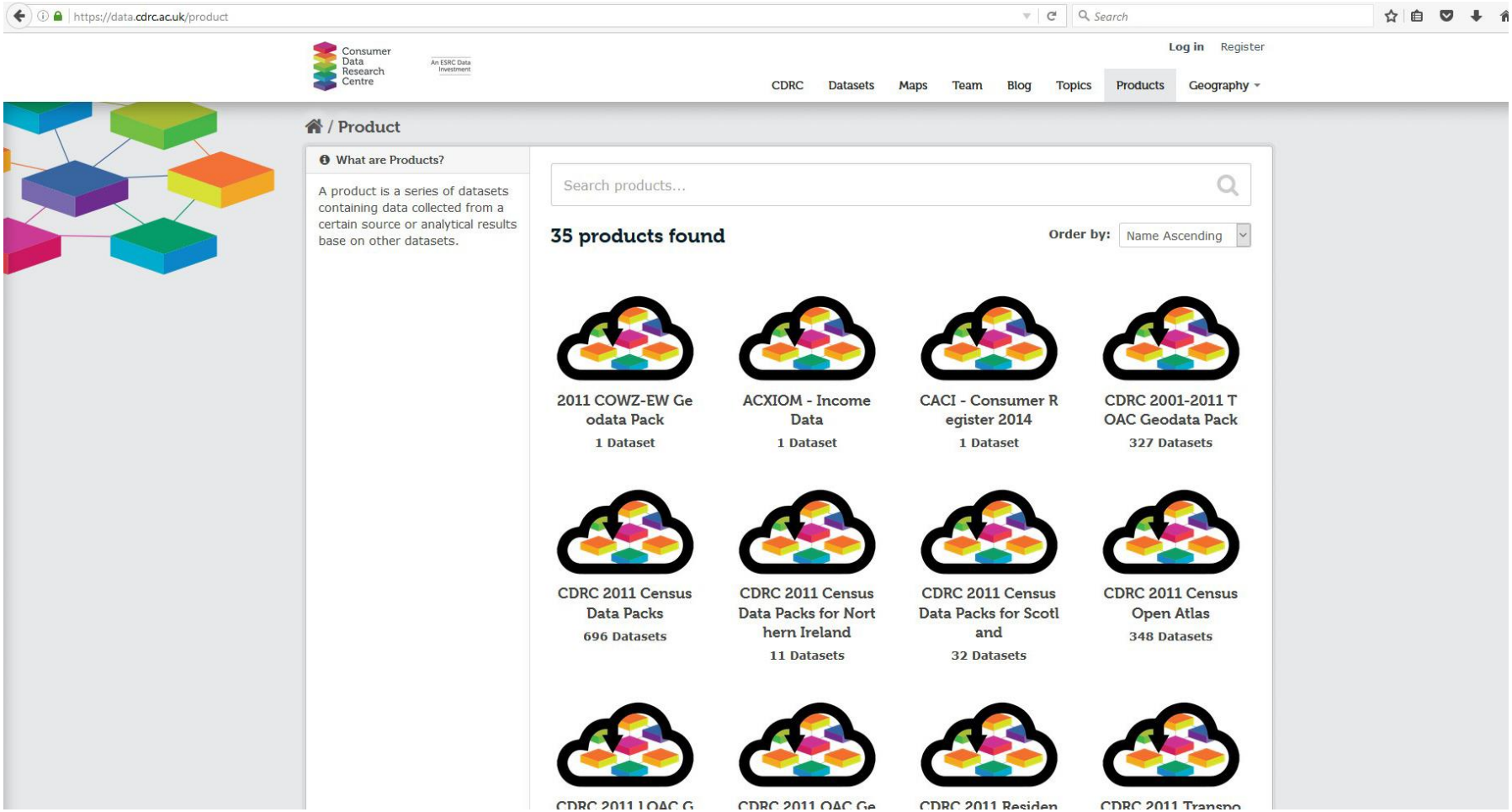
Catalogue...



Browse by Product

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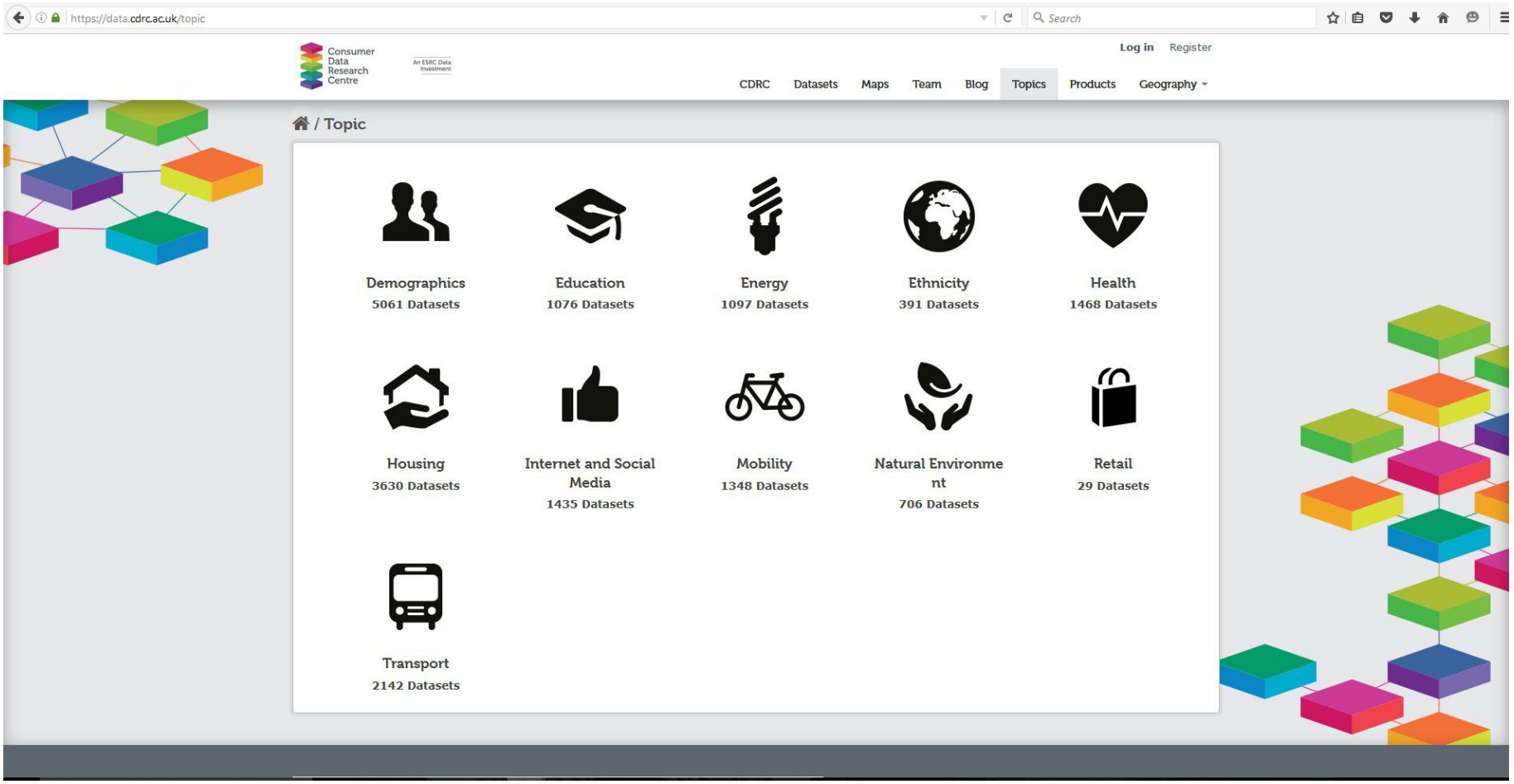
Catalogue...



Browse by Topic

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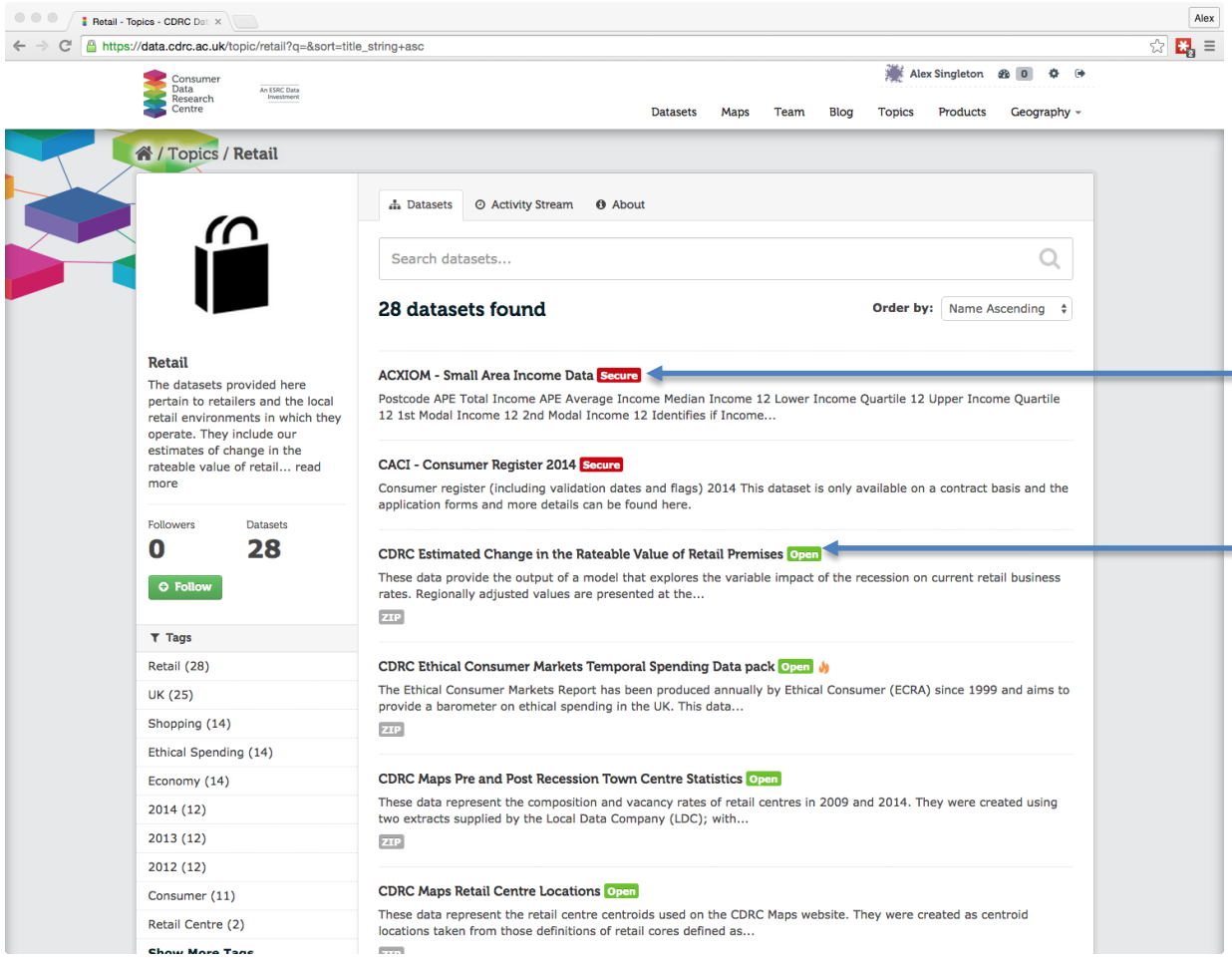
Catalogue...



Access Level

Download Open Data

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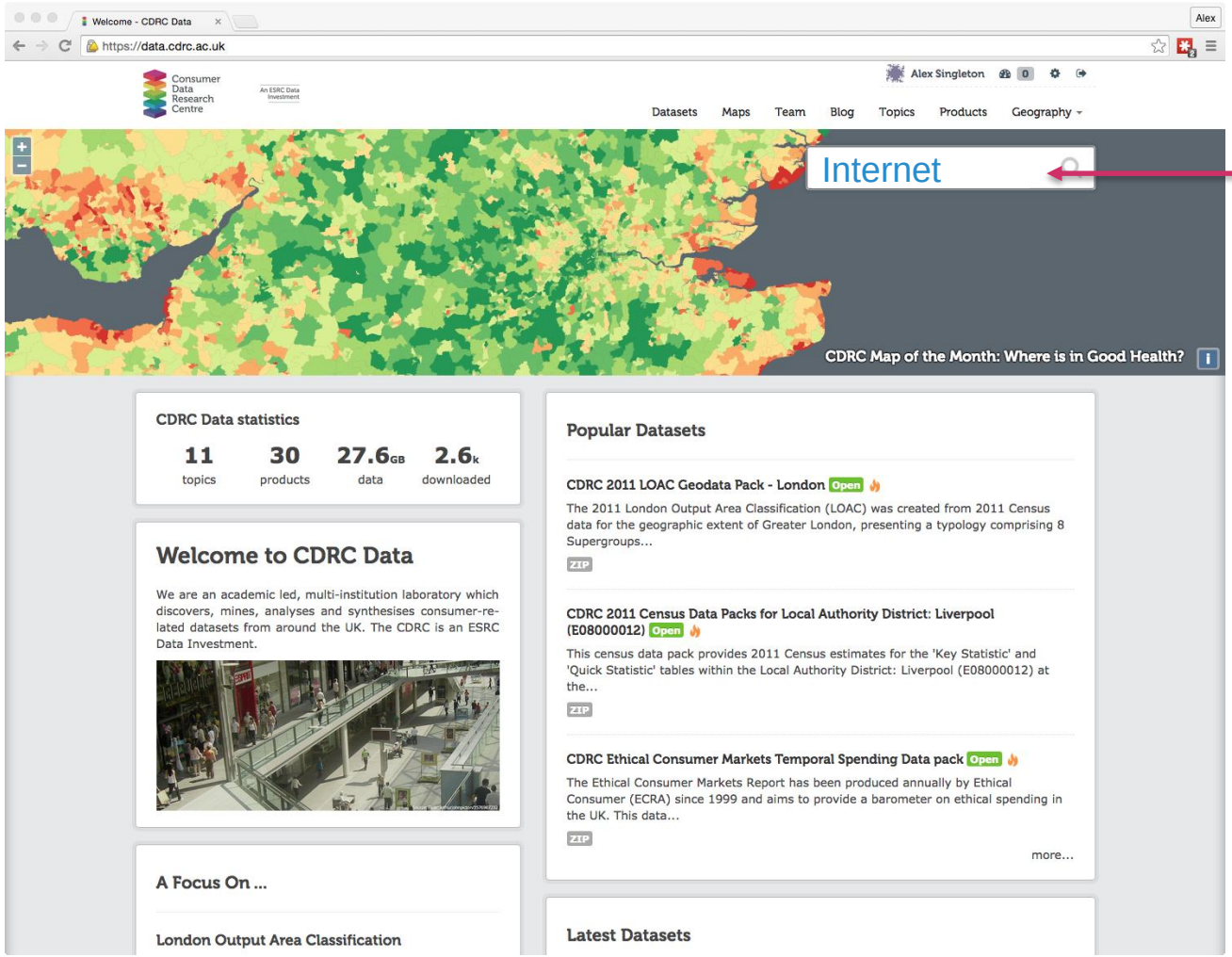
Metadata...



Search...

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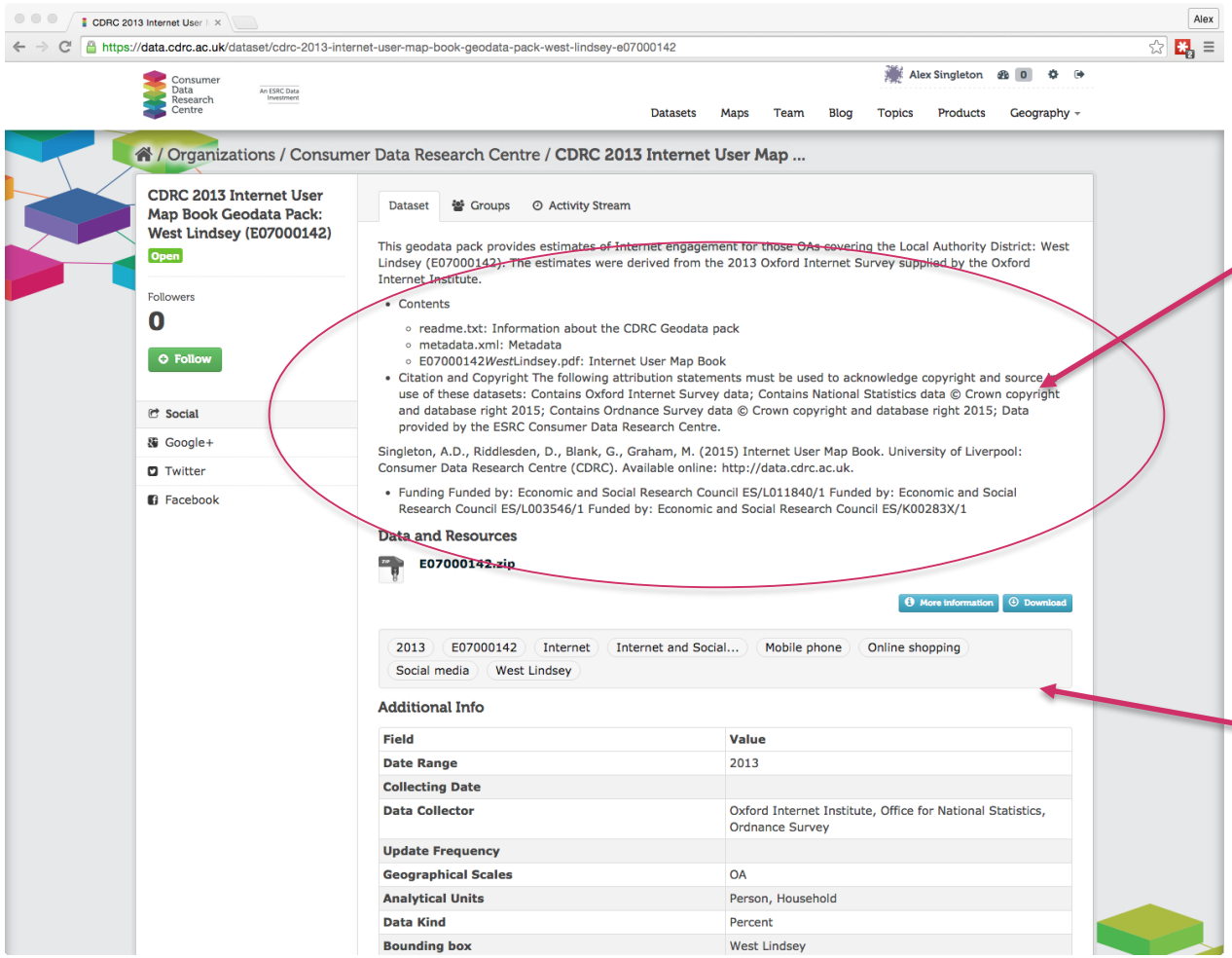
Metadata...



Text Description

Tags
> Scale
> Extent
> Topics
> Year

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Data Products…

Value Added

- Cleaned data
- Spatially referenced
- Added attributes
- More usable formats
- Attribute descriptions
- Available for national, regional or local extents

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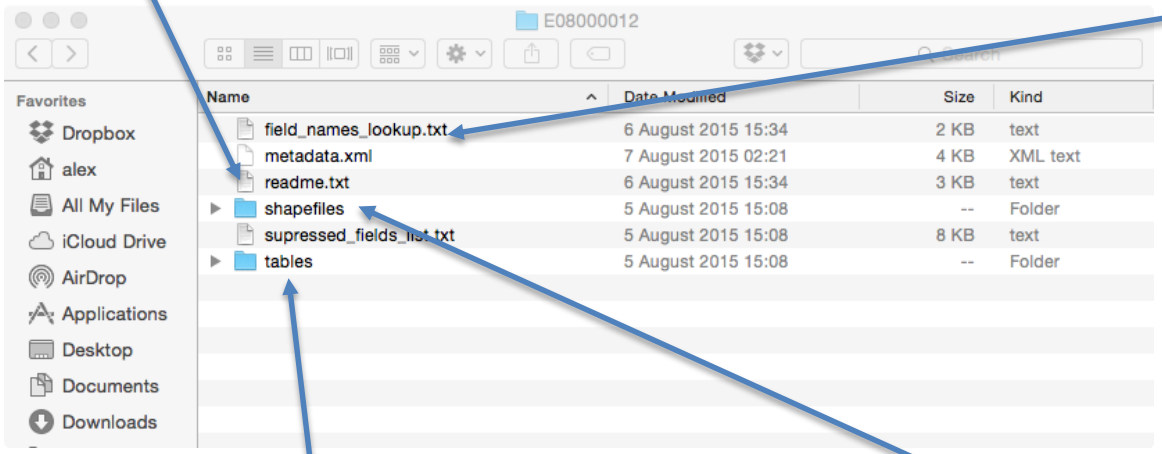
Data Products...

Data description

Attribute descriptions



Shapefiles

Cleaned CSV files

- Easting / northing
- Lat / lon

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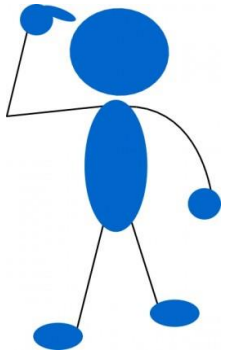
Data Products...

Retailer / Consumer Data Partners

CDRC Academic/ Researcher / Postgraduate student

Internet User Classification

Open Data + Consumer Data Research Centre +



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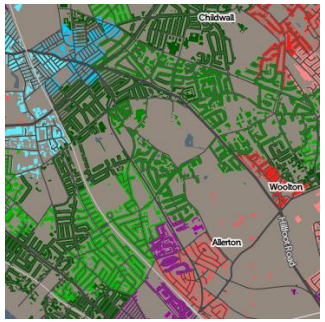

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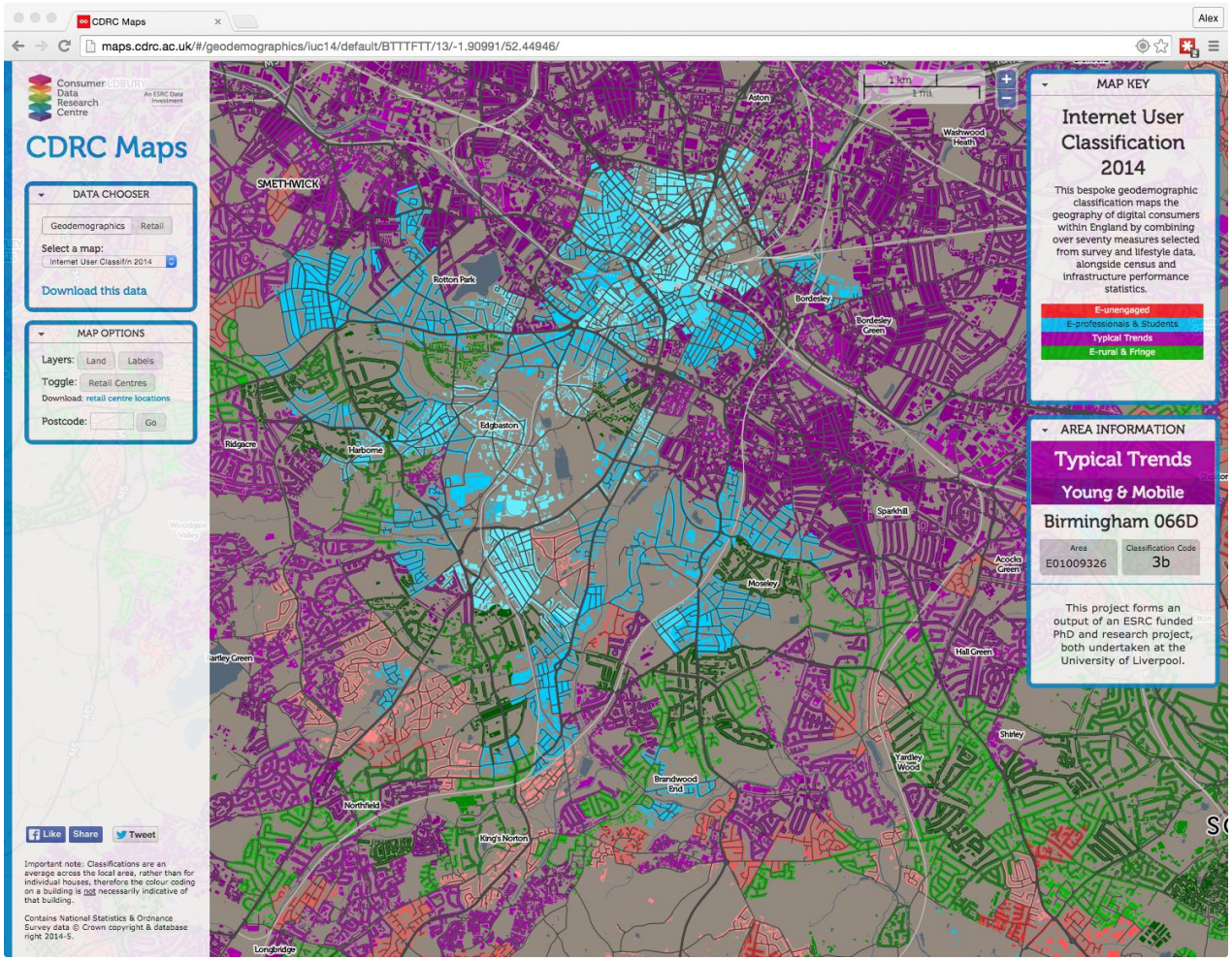
CDRC Maps...



http://maps.cdrc.ac.uk

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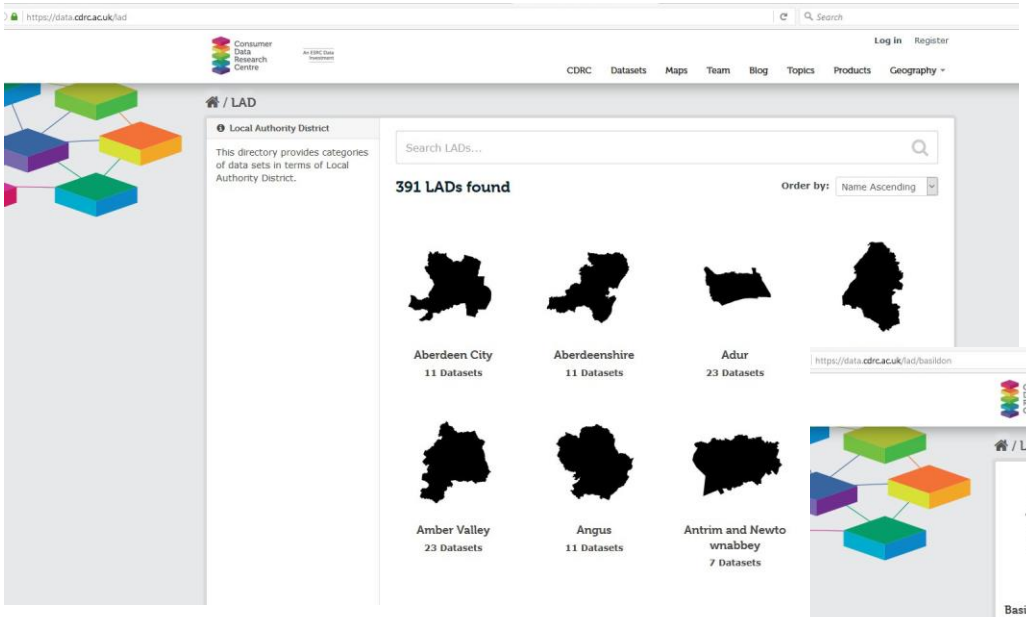
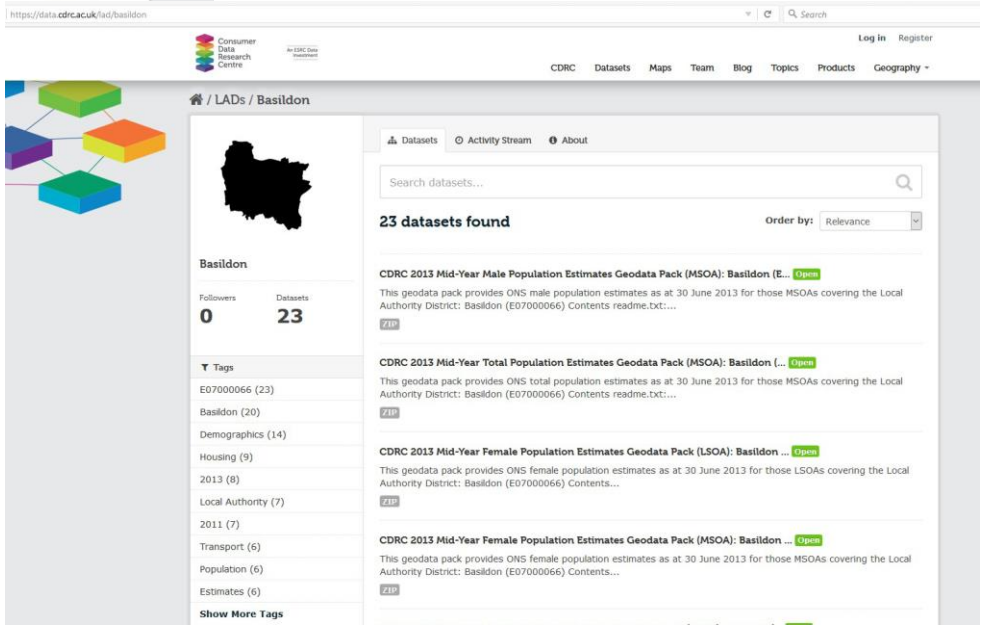
Simple…

Local Authority Datastores





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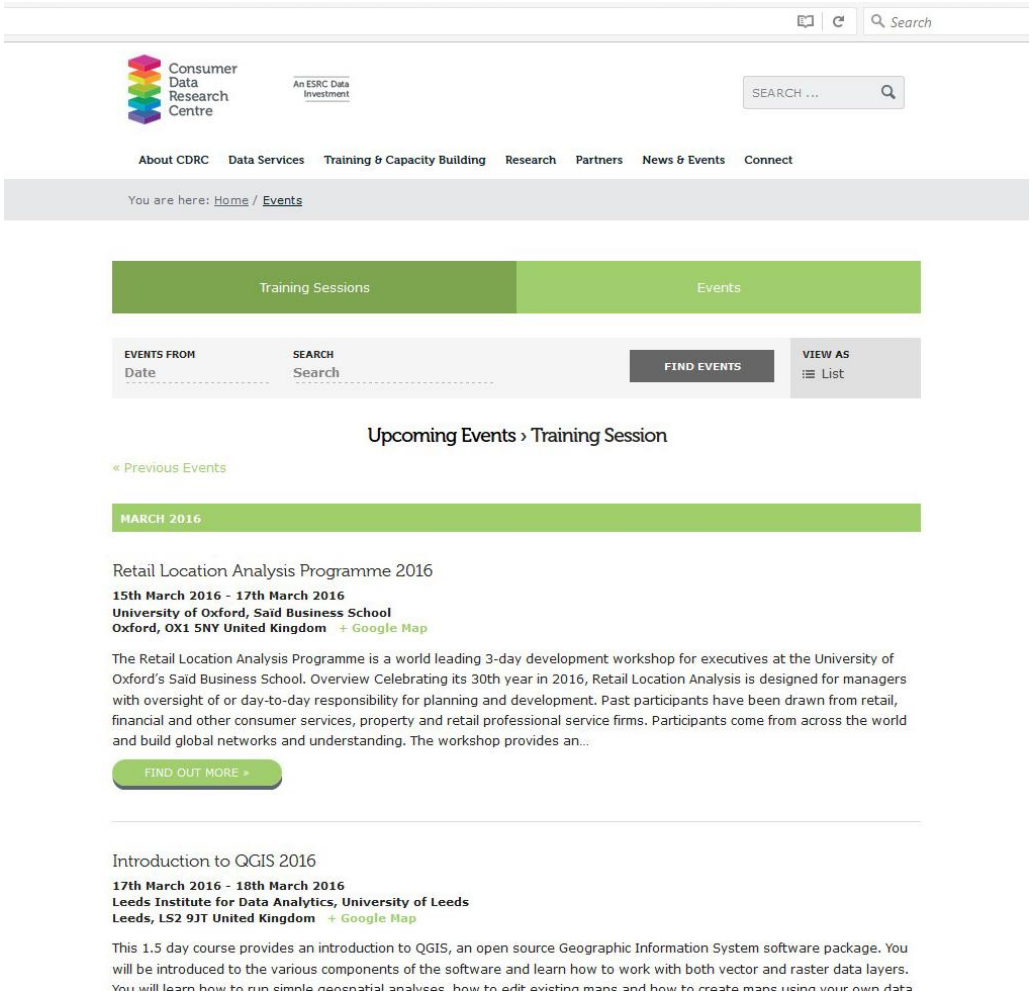
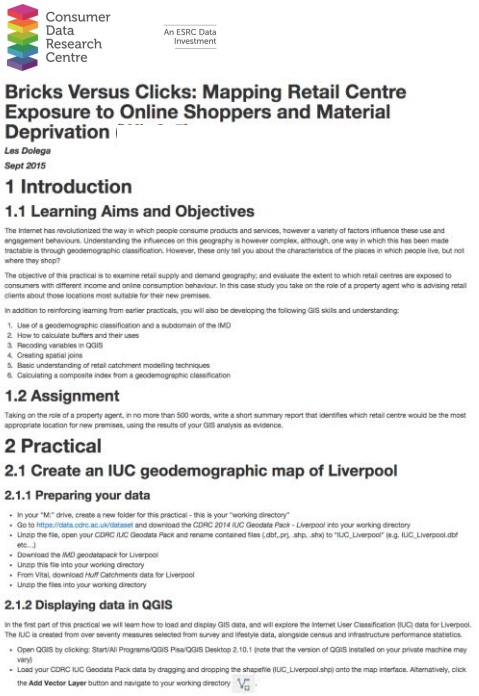
Training...



https://www.cdrc.ac.uk/events/category/training-session/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Bricks Versus Clicks: Mapping Retail Centre Exposure to Online Shoppers and Material Deprivation

Les Dolega

Sept 2015

1 Introduction

1.1 Learning Aims and Objectives

The Internet has revolutionized the way in which people consume products and services, however a variety of factors influence these use and engagement behaviours. Understanding the influences on this geography is however complex, although, one way in which this has been made tractable is through geodemographic classification. However, these only tell you about the characteristics of the places in which people live, but not where they shop?

The objective of this practical is to examine retail supply and demand geography; and evaluate the extent to which retail centres are exposed to consumers with different income and online consumption behaviour. In this case study you take on the role of a property agent who is advising retail clients about those locations most suitable for their new premises.

In addition to reinforcing learning from earlier practicals, you will also be developing the following GIS skills and understanding:

1. Use of a geodemographic classification and a subdomain of the IMD
2. How to calculate buffers and their uses
3. Recoding variables in QGIS
4. Creating spatial joins
5. Basic understanding of retail catchment modelling techniques
6. Calculating a composite index from a geodemographic classification

1.2 Assignment

Taking on the role of a property agent, in no more than 500 words, write a short summary report that identifies which retail centre would be the most appropriate location for new premises, using the results of your GIS analysis as evidence.

2 Practical

2.1 Create an IUC geodemographic map of Liverpool

2.1.1 Preparing your data

- In your "M:" drive, create a new folder for this practical - this is your "working directory"
- Go to https://data.cdrc.ac.uk/dataset and download the CDRC 2014 IUC Geodata Pack - Liverpool into your working directory
- Unzip the file, open your CDRC IUC Geodata Pack and rename contained files (.dbf,.prj, .shp,. shx) to "IUC_Liverpool" (e.g. IUC_Liverpool.dbf etc...)
- Download the IMD geodatapack for Liverpool
- Unzip this file into your working directory
- From Vital, download Huff Catchments data for Liverpool
- Unzip the files into your working directory

2.1.2 Displaying data in QGIS

In the first part of this practical we will learn how to load and display GIS data, and will explore the Internet User Classification (IUC) data for Liverpool. The IUC is created from over seventy measures selected from survey and lifestyle data, alongside census and infrastructure performance statistics.

- Open QGIS by clicking: Start/All Programs/QGIS Pisa/QGIS Desktop 2.10.1 (note that the version of QGIS installed on your private machine may vary)
- Load your CDRC IUC Geodata Pack data by dragging and dropping the shapefile (IUC_Liverpool.shp) onto the map interface. Alternatively, click the **Add Vector Layer** button and navigate to your working directory

Coming very soon...

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Data access principles…

UKDS 5 safe principles:

- Safe Projects: Research Approvals Process
- Safe People: National Accredited Researcher Training
- Safe Setting: Secure Labs
- Safe Outputs: Stringent output checks
- Resulting in - Safe Data

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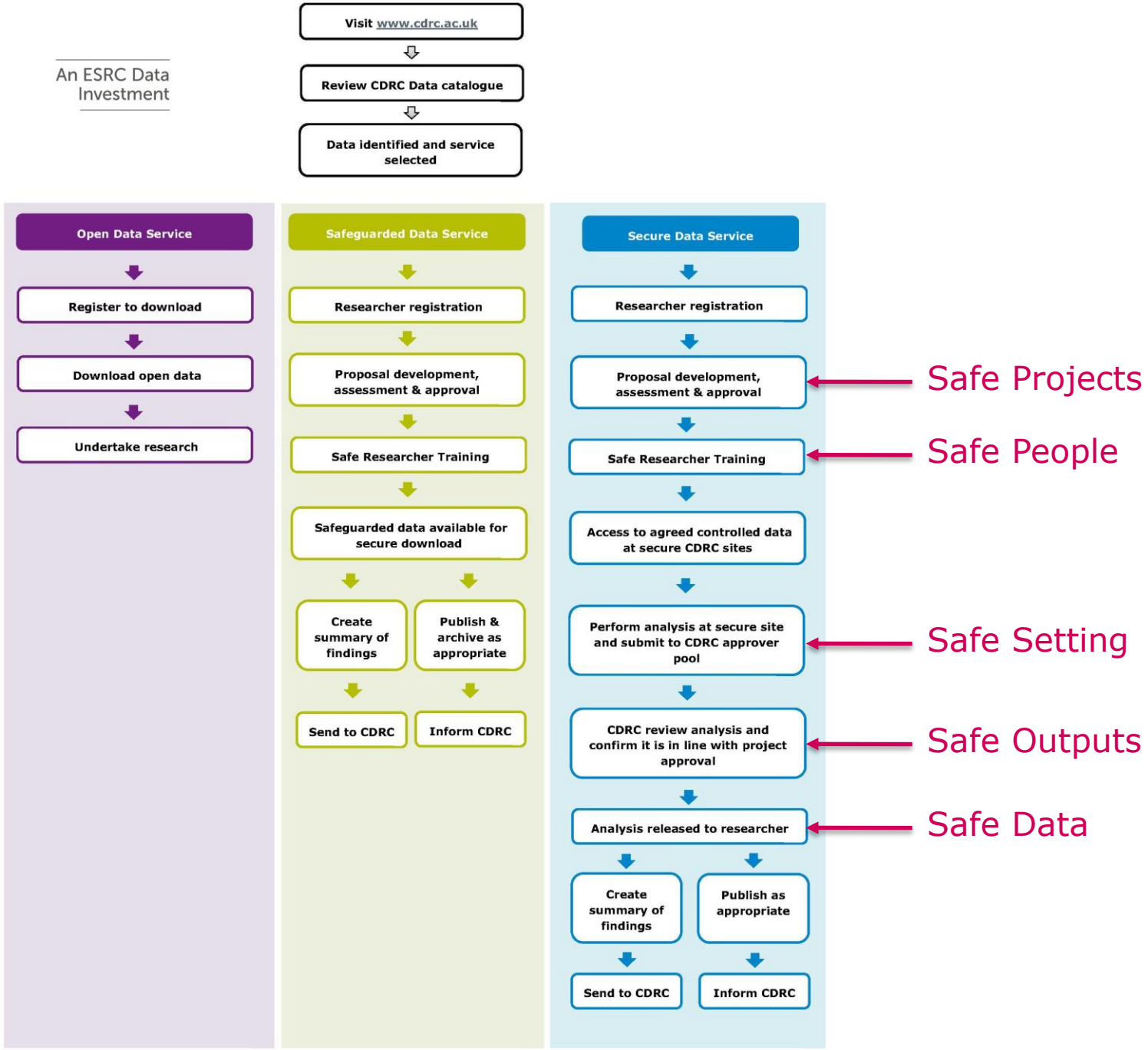

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Research…

The CDRC supports a wide range of users to carry out research projects that provide fresh perspectives on the dynamics of everyday life, problems of economic well-being and social interactions in cities.

- Health
- Retailing
- Policing
- Residential & Social Mobility
- Ethical & Sustainable Consumption

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Data Acquisition…

- Data Acquisition Strategy
  - Strategic Approach
  - Reactive Approach
  - Passive Approach

  - *Co-producing data*

- Ladder of Engagement
  - Research Masters Dissertation Programme
  - PhD/Internships
  - Internal research projects
  - Data acquisition for Centre under Data Licence Agreement

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Research Masters Dissertation Programme

Related Pages

- Active Projects
- Details for Students
- 2016 Student Application Form
- Student Application Guidance
- 2015 Projects
- 2014 Projects
- PhD opportunities
- Testimonials
- Information for Retailers

Project Description	Sponsor	Status
Using Big Data to understand the drivers behind store footfall.	The co-operative	Open
Understanding the Grocery Click & Collect Customer.	Sainsbury's	Open
Explorative and Interactive Visualisation of Data	Sainsbury's	Open
Dark Data	Sainsbury's	Open
Effect of store locations and other factors on geographic sales density.	Thomas Cook	Closed
The size and placing of promotional banners on a website.	SHOP DIRECT	Open
An investigation of what triggers customer activation of credit facilities.	SHOP DIRECT	Open
Generating a linguistic algorithm to interpret shoppers' comments and how this affects their shopping experiences and behaviour.	CACI	Closed

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Data Licence Agreements…

- Data Licence Agreement template
  - Specific restrictions including publication conditions
  - Data set variables description – level of aggregation, time etc.
  - Use of partner name
- Data Sharing Agreement

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Our Partners

whenfresh
converting data into truth

Zoopla.co.uk
Smarter property search

SHOP DIRECT

CACI

ao.com

Helping hearts
heart research uk

LDC
The leader in retail location data & insight

ethical consumer

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Importing Data

- Encrypted hard drive
- Asset management
- Data Protection Registration (if required)
- Importing to Datastore

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Asset Management

- Date
- CDRC Owner
- Designation – controlled, safeguarded, open
- Personal data or not
- Dataset reference
- Dataset name
- Partner name
- Partner contact
- Original/revised
- Version
- Metadata
- Physical location
- **Digital Object Identifier**
- DLA restrictions
- Institutional Data Protection registration

DOI:

- CDRC unique prefix
- Datacite Mandatory Properties
- Anonymous creators

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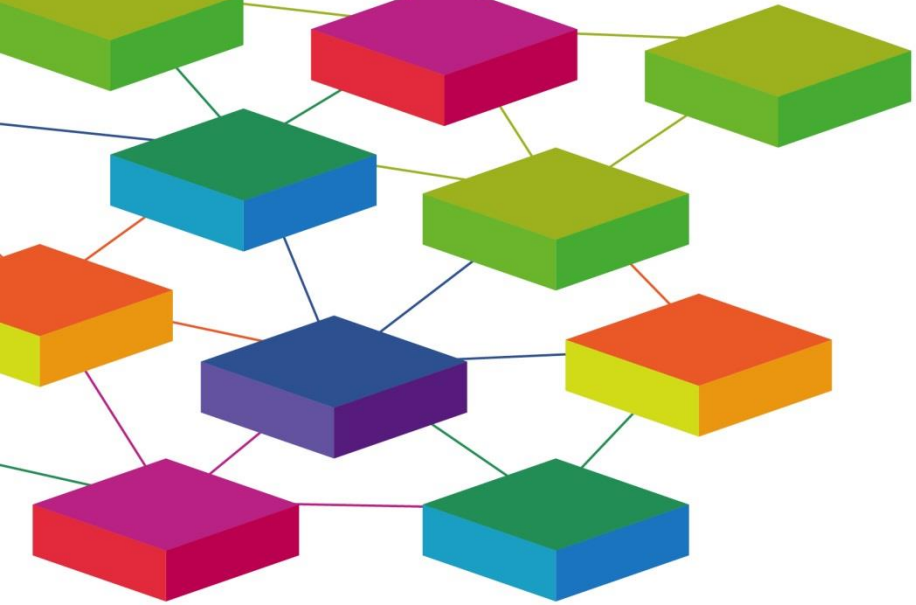
Data Preservation

- Duration of CDRC, CDRC datasets will be curated, catalogued, maintained and preserved by the CDRC.
- After the CDRC those datasets created by the CDRC and that permission has been given will be archived at the UKDS UK Data Archive.
- Consumer organisation data – the raw data, if not representative of the population, do we want to be preserving this data? And who decides this?



www.cdrc.ac.uk