

Open data: what can it do for you?

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Material available: https://kakiac.github.io/talks

EXPLORING DATA
ENHANCING KNOWLEDGE
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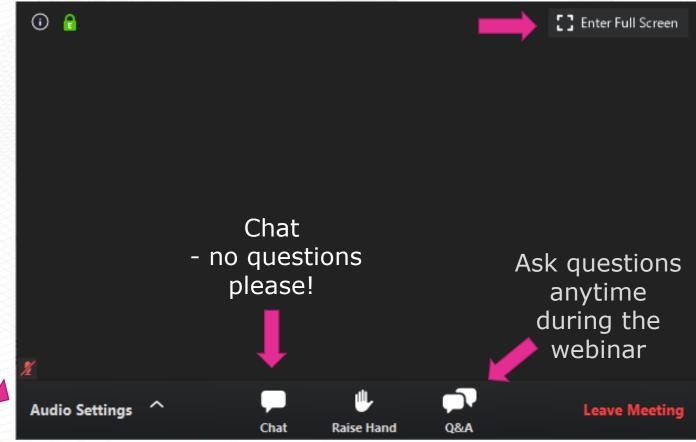


Business and Local Government Data Research Centre





Webinar communication



EXPLORING DATA
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Meeting

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Our core mission

Combining fundamental research with applied, for impact that influences policy and informs practice.

- Methodologies and techniques for data science and artificial intelligence
- Local economic growth
- Supporting vulnerable people

Research community



Public sector



Businesses







Already benefiting

Since 2014, we have worked with private, public sector and notfor-profit organisations. By bringing the latest insights out of the university and into society, we have been part of solving real world problems.





















These collaborations influence and inform best practice all over the world.











Data Analytics Innovation Vouchers

Forward-looking organisations are beginning to realise that it is not enough to analyse their data; they must also act on it.

- We provide grant funding to renowned researchers to solve real-life challenges
- Maximising your data by collecting, organising, linking and analysing various datasets
- · Creating proof of concepts, feasibly studies and sharing best practice







Applications welcome for data analytics projects

Next application round closes 31st October 2020

Find out more: blgdataresearch@essex.ac.uk





Outline



Open data: what are they and why should we be excited?



Open Data's Impact on society



Open data repositories: examples

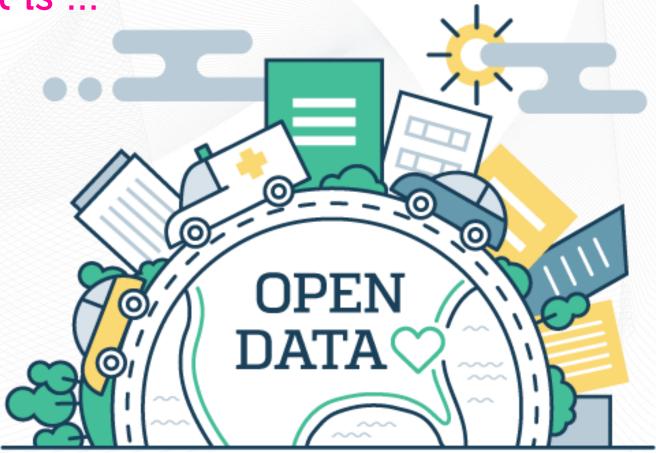


Case studies: how open data can revitalise public services





What is ...







Open Data...

Open data is publicly available data that can be universally and readily accessed, used and redistributed free of charge.

- Openness of data exists on a continuum
- Main open data creators:
 - Governments
 - Scientists
 - Corporations
- derives its base from various "open movements"
 - such as open source, open hardware, open government, open science





Open data in the voluntary sector

- a driving force in advancing open data agendas:
 - through standard setting,
 - · awareness raising,
 - defining public expectations.
- Smaller charities still lack the resources to develop the technical capacities they need to take advantage of open data.

Read more: https://www.stateofopendata.od4d.net/chapters/stakeholders/civil-society.html





Open data in the public sector

- shift from open data experimentation toward consolidation
 - open data = 'business as usual'.
- growing awareness of need to share and reuse data
 - need to upgrade policies, institutional structures, programmes, and practices
 - to ensure effective reuse of government data
 - secure long-term sustainability
 - ensure continuity of open data initiatives
- open data helped with digital transformation of services across countries
 - links between open data and other policy areas deemed essential

Read more: https://www.stateofopendata.od4d.net/chapters/stakeholders/government.html





Open data in the commercial sector

- key roles:
 - data users, data intermediaries, data providers through data collaboratives
- Incubators and accelerators support companies to apply for and use open data
- Large and small businesses use open data:
 - for business operations
 - to create new products and services.
- Open data remains largely an untapped resource
 - more support needed for SMEs to realise full benefits for business innovation.

Read more: https://www.stateofopendata.od4d.net/chapters/stakeholders/private-sector.html





1.

Improving government, primarily by

- tackling corruption
- increasing transparency
- Enhancing public services and resource allocation

Example:



OPENING CANADA'S T3010
CHARITY INFORMATION RETURN
DATA

Accountability of Charities through Open Data





2.

Empowering citizens, to take control of their lives and demand change by:

- enabling more informed decision making
- enabling new forms of social mobilisation
- Facilitating new ways of communicating and accessing information

Example:



SOUTH AFRICA: CODE4SA

Cheaper Medicines for Consumers





3.

Creating opportunity, for citizens and businesses by:

- Fostering innovation
- Promoting economic growth
- Creating jobs

Example:





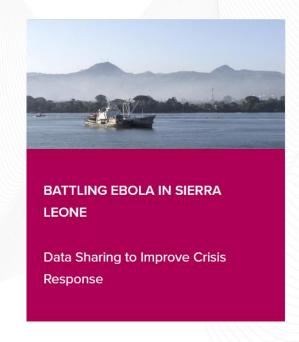


4

Solving public problems, by:

- Allowing citizens and policy makers access to new forms of data-driven assessment of the problems
- Enabling data-driven engagement producing more targeted interventions and enhanced collaboration

Example:





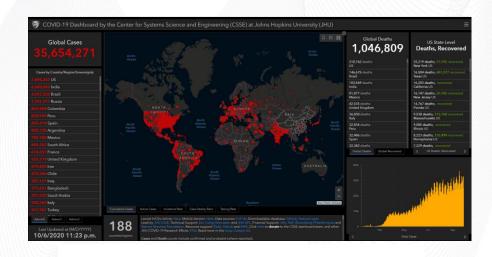




4. Solving public problems, by:

- Allowing citizens and policy makers access to new forms of data-driven assessment of the problems
- Enabling data-driven engagement producing more targeted interventions and enhanced collaboration

Example:



COVID-19 dataset

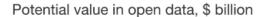
Source: Dong E, Du H, Gardner L. An interactive webbased dashboard to track COVID-19 in real time. Lancet Inf Dis. 20(5):533-534. doi: 10.1016/S1473-3099(20)30120-1

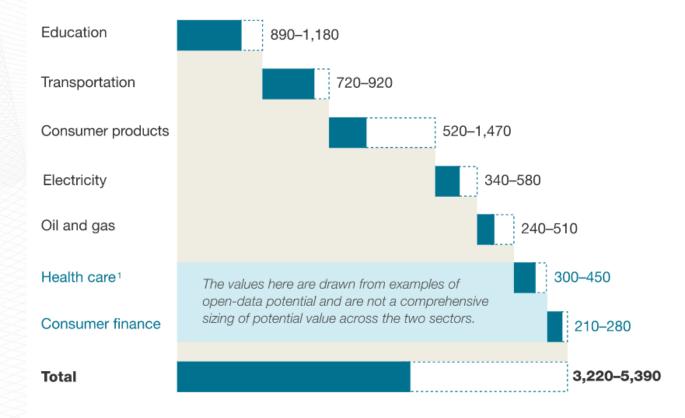




Economic Impact of Open Data

Open data can help unlock \$3 trillion to \$5 trillion in economic value annually across seven sectors.





¹Includes US values only.

Source: McKinsey Global Institute analysis

https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/open-data-unlocking-innovation-and-performance-with-liquid-information#





Examples of Open Data Portals

Find open data

Find data published by central government, local authorities and public bodies to help you build products and services

Search data.gov.uk

Q

Business and economy

Small businesses, industry, imports, exports and trade

Crime and justice

Courts, police, prison, offenders, borders and immigration

Defence

Armed forces, health and safety, search and rescue

Education

Students, training, qualifications and the National Curriculum

Environment

Weather, flooding, rivers, air quality, geology and agriculture

Government

Staff numbers and pay, local councillors and department business plans

Government spending

Includes all payments by government departments over £25,000

Health

Includes smoking, drugs, alcohol, medicine performance and hospitals

Mapping

Addresses, boundaries, land ownership, aerial photographs, seabed and land terrain

Society

Employment, benefits, household finances, poverty and population

Towns and cities

Includes housing, urban planning, leisure, waste and energy, consumption

Transport

Airports, roads, freight, electric vehicles, parking, buses and footpaths

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SEARCH

DATA CART

HFI P

Open access to Scotland's official statistics

Explore, visualise and download over 250 datasets from a range of producers. Start browsing by theme, organisation, or geography. Or access programmatically using our APIs.



Getting started

Introduction

An overview of the features of statistics.gov.scot.

Browse Data

Explore, filter and visualise all our datasets via the Data section

Browse Areas

Use our Atlas feature to explore areas about which we publish data.

About

Some background about statistics.gov.scot.

Guides

User guides index

Search and browse our collection of user guides. A selection of popular guides are listed below.

Data Cart

How to use the data cart to make custom collections of data, and download them for re-use.

Viewing Data on a Map

We often get asked by users how they can view data on a

Downloading Data

Our website offers a variety of ways to download data.

We use some necessary cookies to make this site work and we also set some analytics cookies. More details



Our users often tell us that they like to be able to visualise trends in datasets over time.

These partner organisations contribute data to statistics.gov.scot

















Your data cart contains 0 rows and 0 columns.

Managed by the Scottish Government, this site provides a range of official statistics about Scotland from a variety of data producers, for information and re-use, Read more about the site, or get in touch:

statistics.opendata@gov.scot.

See our User Guides

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statswales.gov.wales/

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Welsh Government

StatsWales

Cymraeg

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06/10/2020

Home

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Help

As the demand increases for statistics and data to measure the impact of the COVID-19 pandemic, we have had to change our data gathering and release practices, focussing efforts on priority analysis and statistics. https://gov.wales/statistics-and-research

Catalogue Agriculture Business, economy and labour market Census

inclusion

Education and skills

Environment and countryside

Community safety and social

Equality and diversity

Health and social care

Housing

Local government

National Survey for Wales

Population and migration

Sustainable development

Taxes devolved to Wales

Tourism

Transport

Well-being

Welsh Government

Welsh language

Detailed official data on Wales

StatsWales is a free-to-use service that allows you to view, manipulate, create and download tables from Welsh data.

Take a tour



Latest

dji	Annual Population Survey - Ability to speak Welsh by local authority and year	*	06/10/2020
djio	Annual Population Survey - Ability to speak Welsh by age, sex and year	*	06/10/2020
dib	Annual Population Survey - Ability to read, write and understand spoken	(06/10/2020

Annual Population Survey - Ability to read, write and understand spoken
Welsh by local authority and year

Help to Buy - Wales completed leasehold purchases by date

Annual Population Survey - Ability to read, write and understand spoken 99 06/10/2020
Welsh by age, sex and year



Most viewed	Last 7 days	O Last 30 days	O Last 365 days	O All tim

Ethnicity by area and ethnic group
 Council tax levels by billing authority and band (£)
 Population estimates by local authority and year

Community council precepts by community council

Schools by local authority, region and Welsh medium type

dib Employment rate by Welsh local area, year and gender
dib Welsh Index of Multiple Deprivation 2019 by rank, decile and quintile, Lower-layer Super Output Area (LSOA)

Population estimates by local health boards and age

Gender pay difference in Wales by year (median hourly earnings full-time employees excluding overtime) (£)

Population density (persons per square kilometre) by local authority and year

Stats Wales

Statistics for Wales on Twitter
Office for National Statistics
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UK Statistics Authority

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Datasets



#data2life @BLGDataResearch

www.opendatani.gov.uk/





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Latest

Belfast City Council seeking innovative solutions to COVID-19 response

April 28, 2020

Belfast City Council is working with government, our universities, and the community & voluntary sectors to support a coordinated contribution by the digital innovator...

Coronavirus and open data

April 16, 2020

The demand for access to data to aid public understanding of governmental responses to the coronavirus pandemic has been notable across the world. The Center for...

> More

OpenDataNI Innovation & Outreach Fund 2020 - And the winners are.....

March 4, 2020

A key strand of the Open Data Strategy for Northern Ireland 2020-2023, the OpenDataNI Innovation and Outreach Fund aims to promote NI government Open Data re-use, stimulate...

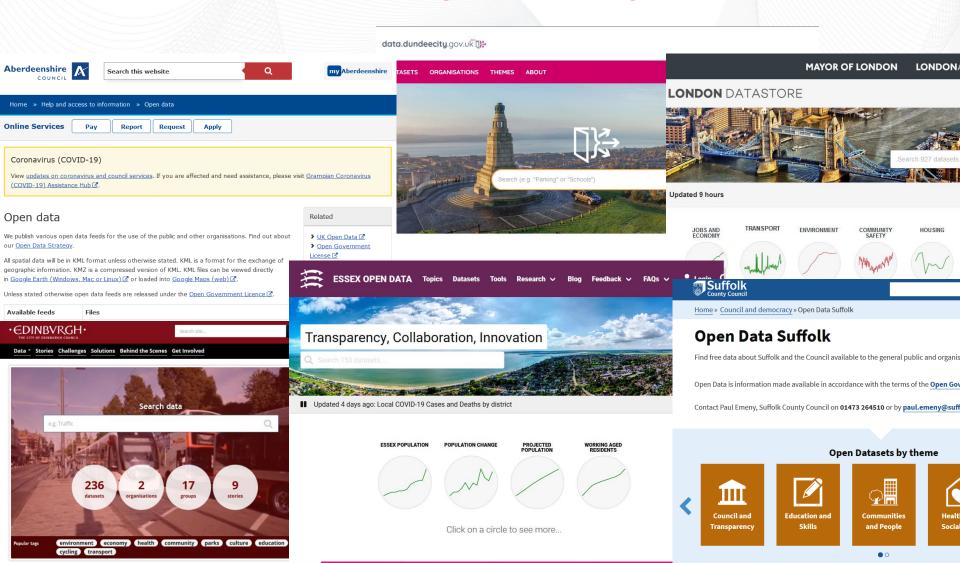
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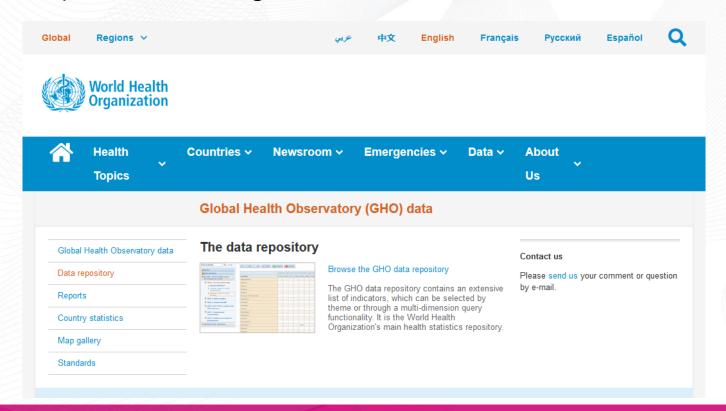
Local Authorities Open data portals





World Health Organisation Open data

https://www.who.int/gho/database/en/

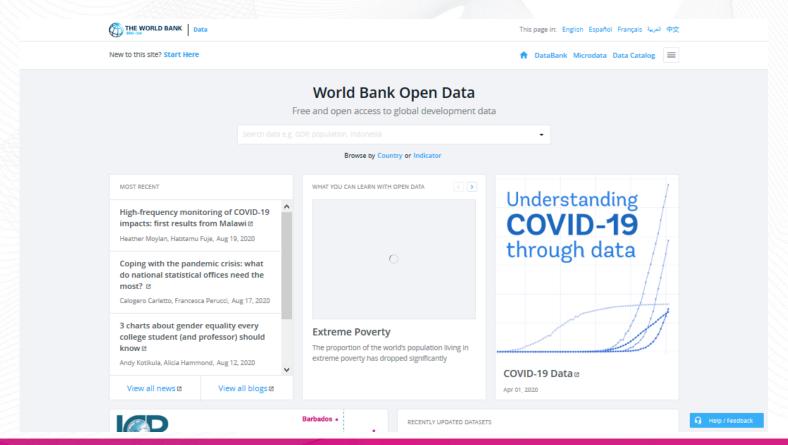






World Bank Open Data

https://data.worldbank.org/

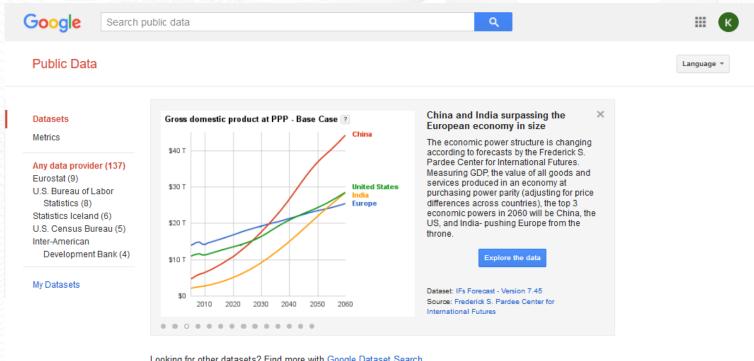






Google Public Data Explorer

https://www.google.com/publicdata/directory



Looking for other datasets? Find more with Google Dataset Search.

World Development Indicators

World Bank

This dataset contains the World Development Indicators (WDI).

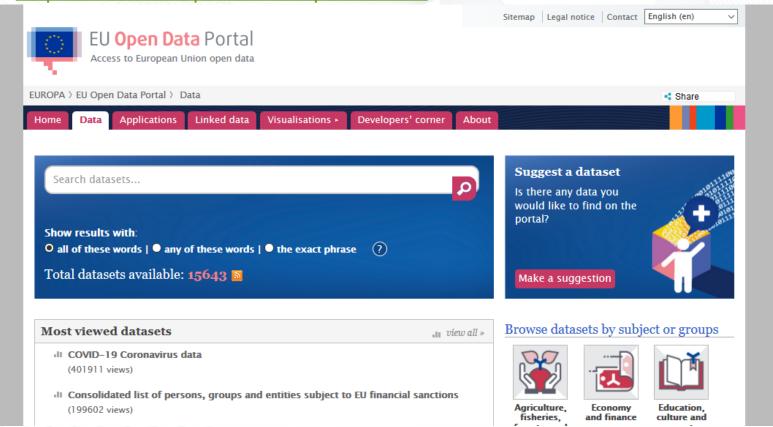






EU Open Data Portal

https://data.europa.eu/euodp/en/data/

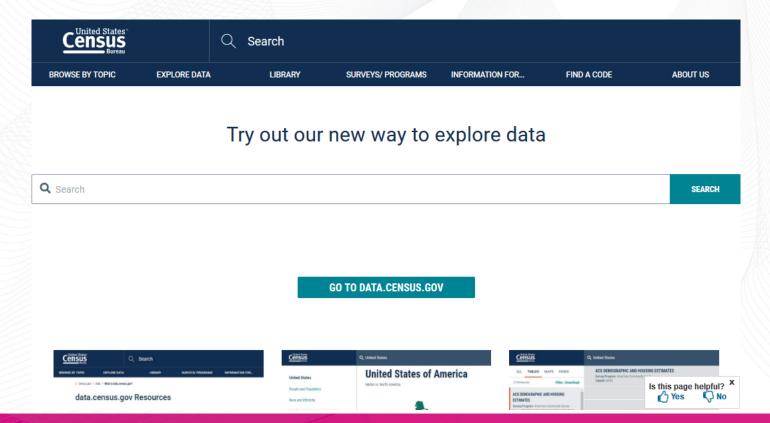






U.S. Census Bureau

https://www.census.gov/data.html







Registry of Open Data on Amazon WS (RODA)

https://registry.opendata.aws/

Registry of Open Data on AWS



About

This registry exists to help people discover and share datasets that are available via AWS resources. Learn more about sharing data on AWS.

See all usage examples for datasets listed in this registry.

See datasets from Facebook Data for Good, NASA Space Act Agreement, NIH STRIDES, NOAA Big Data Program, Space Telescope Science Institute, and Amazon Sustainability Data Initiative.

Search datasets (currently 195 matching datasets)

Search datasets

Add to this registry

If you want to add a dataset or example of how to use a dataset to this registry, please follow the instructions on the Registry of Open Data on AWS GitHub repository.

Unless specifically stated in the applicable dataset

The Cancer Genome Atlas

life sciences STRIDES whole genome sequencing

The Cancer Genome Atlas (TCGA), a collaboration between the National Cancer Institute (NCI) and National Human Genome Research Institute (NHGRI), aims to generate comprehensive, multi-dimensional maps of the key genomic changes in major types and subtypes of cancer. TCGA has analyzed matched tumor and normal tissues from 11,000 patients, allowing for the comprehensive characterization of 33 cancer types and subtypes, including 10 rare cancers. The dataset contains open Clinical Supplement, Biospecimen Supplement, RNA-Seq Gene Expression Quantification, miRNA-Seq Isoform Expression Quantificati...

Details →

Usage examples

- Cell-of-Origin Patterns Dominate the Molecular Classification of 10,000 Tumors from 33 Types of Cancer by Katherine A. Hoadley, Christina Yau, et al.
- Molecular Characterization and Clinical Relevance of Metabolic Expression Subtypes in Human Cancers by Xinxin Peng, Zhongyuan Chen, et al.
- ISB Cancer Genomics Cloud by Institute for Systems Biology
- Scalable Open Science Approach for Mutation Calling of Tumor

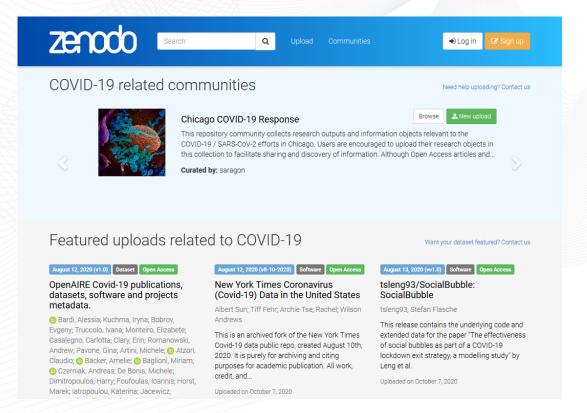






Zenodo EU research oriented (CERN)

https://zenodo.org/







OECD Government Data

https://www.oecd.org/gov/digital-government/open-government-data.htm



- > Anti-corruption and integrity in the public sector
- > Budgeting and public expenditures
- > Digital government
- > Gender mainstreaming. governance and leadership
- > Illicit trade

EXPLO

ENHA

EMPO

- Infrastructure governance
- > Innovative government
- > Open government

Open Government Data

What is Open Government Data?

Open Government Data (OGD) is a philosophyand increasingly a set of policies - that promotes transparency, accountability and value creation by making government data available to all. Public bodies produce and commission huge quantities of data and information. By making their datasets available, public institutions become more transparent and accountable to citizens. By encouraging the use, reuse and free distribution of datasets. governments promote business creation and innovative, citizen-centric services.

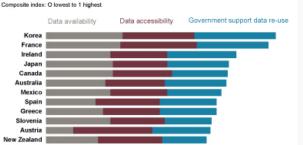
OECD Open Government Data project

OGD can pose some tricky questions for

OECD OURdata Index on Open Government Data

The OECD OURdata Index assesses governments' efforts to implement open data in the three critical areas - Openness, Usefulness and Reusability of government data.

OURdata Index: Open-Useful-Reusable Government Data 2019









v of Essex



Data.gov (US)



DATA TOPICS - RESOURCES STRATEGY DEVELOPERS CONTACT

The home of the U.S. Government's open data

Here you will find data, tools, and resources to conduct research, develop web and mobile applications, design data visualizations, and more.

For information regarding the Coronavirus/COVID-19, please visit Coronavirus.gov.

GET STARTED

SEARCH OVER 208,977 DATASETS



Manufacturing & Trade Inventories & Sales

Q

HIGHLIGHTS

Improving Access to Older Adult Health Data for Timely Use Amid COVID-19 and Beyond

Today marks the launch of the <u>Older Adults Health Data Collection</u> – a new resource cataloging over 200 Federal datasets previously available on Data.gov related to the health of older Americans. This centralized location will assist experts from academia, industry, government, civil society, and the public in accessing datasets from various Federal agencies and across a range of health-related issues (e.g. health status, health risks and behaviors, and health care) to advance our collective knowledge and understanding of the health of older adults.

Analyzing data on the older adult population in the time periods before, during, and after the pandemic is an important step to gaining a better understanding of both the health of this age group as well the immediate and long-term impacts of the pandemic. The *Older Adults Health Data Collection* contains datasets that capture outcomes directly related to COVID-19 as well as others that do not, and the number of COVID-19 related datasets in the collection is anticipated to grow over time. Datasets without COVID-19-specific data elements still provide important context on the health of older adults before the pandemic and are likely to incorporate COVID-19 data

https://www.data.gov/







FiveThirtyEight

https://data.fivethirtyeight.com/

FiveThirtyEight obeNEWS **Politics** Sports Science & Health Economics Culture **Our Data** We're sharing the data and code behind some of our articles and graphics. We hope you'll use it to check our work and to create stories and visualizations of your own. UPDATING RELATED CONTENT DATA SET 2019-20 NBA Predictions nba-forecasts 19 minutes ago • **How Popular Is Donald Trump?** trump-approval-ratings 31 minutes ago •



Case studies: how open data can revitalise public services



Open data being used to create or improve public services

Essex Centre for Data Analytics: tackling issues earlier through smarter use of data







Using open geospatial data to make a difference

Falkirk Council collaborated with thinkWhere to develop a simple mapping platform to support the Fairer Falkirk strategy. The open source platform presents data from OpenStreetMap on a map that will help local community groups and citizens to find and access local services.



Read more: https://theodi.org/project/local-governments-using-open-geospatial-data-to-make-a-difference/#1561369304813-98242c28-4c69







Open data for increasing access to public services

Transport for London: open transport data for citizens and innovators



Read more:

https://theodi.org/projectsservices/projects/public-servicedelivery-casestudies#1543999447528-f2e9482cf7d8





Additional Material & Resources

- Selected Readings on Open Data Legislation and Policy:
 - https://medium.com/open-data-policy-lab/selected-readings-on-open-data-legislation-and-policy-95b2c7146fbb
- Open Data Policy Lab
 - https://opendatapolicylab.org/
- The GOVLAB: Open Data's Impact. Explore the impact of open data around the world
 - http://odimpact.org/
- GOBLAV resources: building new technology to solve public problems
 - http://www.thegovlab.org/projects.html
- The OD500 Global Network: a study of companies that use open government data to generate new business and develop new products and services.
 - http://www.opendata500.com/





Additional Material & Resources

- Local government using open geospatial data to make a difference:
 - https://theodi.org/project/local-governments-using-open-geospatial-data-to-make-a-difference/
- ODI "Data and Public Services Toolkit"
 - https://theodi.org/project/using-data-public-sector/
 - https://theodi.org/service/tools-resources/data-and-public-services-toolkit/
- Local Authorities in UK: More case studies & examples
 - https://theodi.org/projects-services/projects/public-service-delivery-case-studies
- ODI Data and Public Services Business Case Canvas
 - https://theodi.org/article/data-and-public-services-business-case-canvas/
- Alan Turing London air Quality project (using Machine Learning and Open data)
 - https://www.turing.ac.uk/research/research-projects/london-air-quality
- Open Data Charter consortium
 - https://opendatacharter.net/







Additional Material & Resources

- Open data: Unlocking innovation and performance with liquid information:
 - https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/open-dataunlocking-innovation-and-performance-with-liquid-information#
- State of open data 2019 report
 - https://www.digital-science.com/blog/news/the-state-of-open-data-2019/
 - https://figshare.com/articles/The State of Open Data Report 2019/9980783
 - https://www.stateofopendata.od4d.net/
- Open Data EU policy brief
 - https://ec.europa.eu/digital-single-market/en/open-data
- OECD Open, Useful and Re-usable data (OURdata) Index: 2019
 - http://www.oecd.org/gov/digital-government/ourdata-index-policy-paper-2020.pdf



Material available:

https://kakiac.github.io/talks

Q&A session



Tell us what you thought of this webinar: http://bit.ly/BLGOpenDataSurvey



UPCOMING WEBINARS

Exploring data, enhancing knowledge, empowering society

The visualisation of data

18th November 2020 10:30 AM

Social Return on Investment (SROI): Measuring your value

13th January 2021 10:30 AM

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- Asking the right questions to get the right answers (best practice in evaluation forms and impact assessment)
- Evidencing need
- Exploring your text data

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Thank you

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