



Introducing Open Data

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# Overview

Defining open data

Benefits

Open, closed and personal data

Why now?



# Exercise

What is Data?



# Definition of Data (1)

A collection of **facts, information** and  
statistics that can be analysed to  
develop new knowledge



# Definition of Data (2)

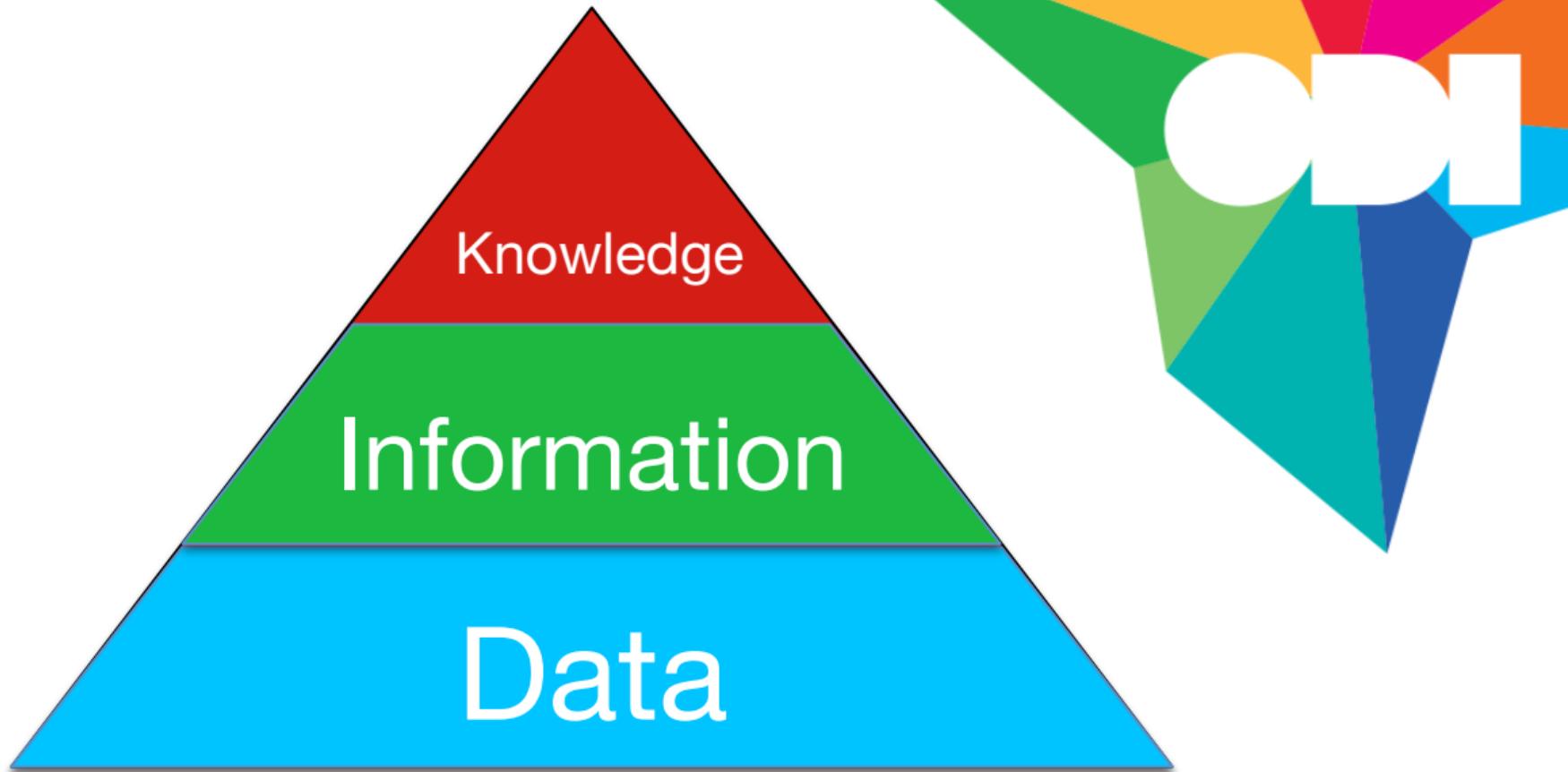
A collection of numbers assigned as values to quantitative variables and/or characters assigned as values to qualitative variables



# Definition of Data (3)

The **lowest level** of abstraction  
from which information and then  
knowledge are derived.





# Exercise

What is Open Data?



# Definition of Open (OKF)



A piece of data or content is open if **anyone** is **free to use, reuse, and redistribute** it — subject only, at most, to the requirement to attribute and/or share-alike.

# Definition of Open (ODI)

Open data is information that  
is **available** for **anyone** to **use**,  
for **any purpose**, at **no cost**.



# Definition of Open Data

Open Data is accessible public data that people, companies and organizations can use to launch new ventures, analyze patterns and trends, make data-driven decisions, and solve complex problems.



[opendefinition.org](https://opendefinition.org)



Access

Attribution

Redistribution

Non-discriminatory

Reuse

Remix and Combine

Integrity



Data is the raw material of the  
new industrial revolution



# Justifications

Trust and  
Transparency

Enabling the  
economy

# NEWS POLITICS

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31 March 2011 Last updated at 12:56

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## Former MP Jim Devine jailed for 16 months over expenses

Ex-Labour MP Jim Devine has been jailed for 16 months for fraudulently claiming £8,385 in expenses.

Devine was last month found guilty of using false invoices for cleaning and printing work.

The ex-MP for Livingston, 57, is the third current or former MP to be jailed for fiddling their expenses, but was the first to stand trial.

The judge, Mr Justice Saunders, said he "set about defrauding the public purse in a calculated and deliberate way".



Devine was the first MP to stand trial over his expenses

### Related Stories



<http://www.telegraph.co.uk/news/newstopics/mps-expenses/>



# Commercial Opportunity



**THE CLIMATE  
CORPORATION**



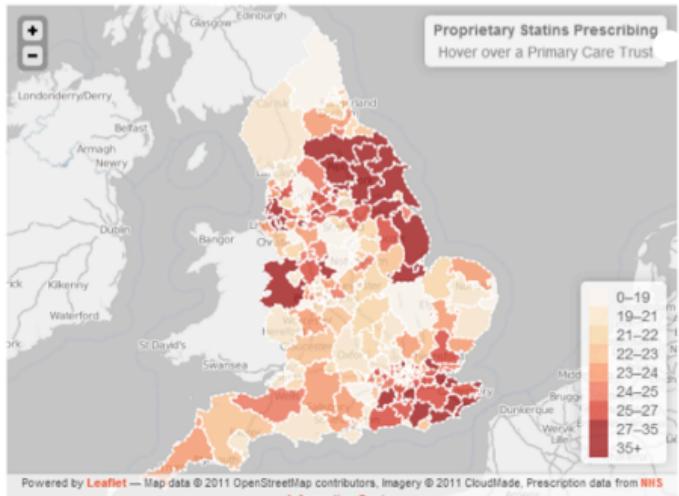
Open Data found a £200m  
saving in the NHS budget

## Home

## NHS efficiency savings: the role of prescribing analytics

The NHS has been challenged to make £20 billion in "efficiency savings" by 2015 (1). £10 billion a year are spent by the NHS on essential drugs. Often, there's a choice between a cheap "generic" medication, or an expensive "branded" one. Branded drugs can cost over ten times as much, for the same therapeutic benefit. "Prescribing Advisors" in the NHS, with the support of NICE, encourage doctors to use the most cost effective treatments. We have analysed exactly how much is spent on expensive "branded" medicines, for one class of drugs, namely statins, in England.

### Percentage of proprietary statin prescribing by CCG Sep 2011 - May 2012



Where generic alternatives exist, NHS purchasing of branded drugs has a number of effects:

1. There is only a finite amount of money to spend on treatments. Prescribing a patient expensive branded drugs, when cheaper equivalents would have the same therapeutic effect, means that money is wasted. As a result the NHS has less money to spend on the care needed by other patients.

1x Rosuvastatin Calcium  
1.2x Simvastatin  
11x Atorvastatin

2<sup>nd</sup>  
Largest Drug Cost  
(prior to June 2012)



# Cross sector benefits



•oooo vodafone UK 10:10 100%

[Back](#) London Liverpool Street

All departures - updated 10:10

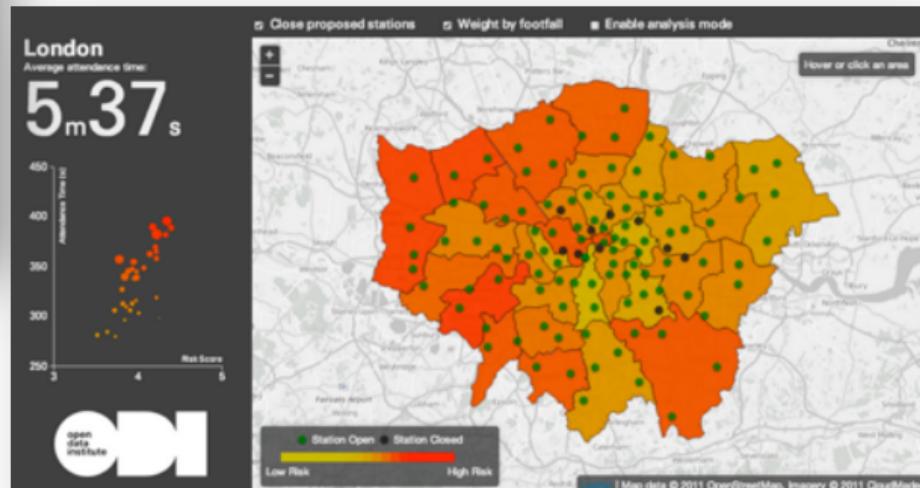
10:10 to Stansted Airport	platform 6	>
On time		
10:15 to Billericay	platform 8	>
On time		
10:17 to Shenfield	platform 7	>
On time		
10:18 to Chingford	platform 2	>
On time		
10:22 to Hertford East	platform 3	>
On time		
10:25 to Stansted Airport	platform 4	>
On time		
10:28 to Cambridge	platform 1	>
On time		
10:30 to Enfield Town	platform 10	>
On time		
10:30 to Norwich	platform 10	>
On time		
10:32 to Clacton-on-Sea		>
On time		

TUBE LINE STATUS (TfL) 18

Bakerloo	Part Closure	<a href="#">more</a>
Central	Part Closure	<a href="#">more</a>
Circle	Good Service	
District	Good Service	
H & C	Good Service	
Jubilee	Good Service	
Metropolitan	Good Service	
Northern	Part Closure	<a href="#">more</a>
Piccadilly	Good Service	
Victoria	Good Service	
W & C	Planned Closure	<a href="#">more</a>
Overground	Part Closure	<a href="#">more</a>
DLR	Part Closure	<a href="#">more</a>

# Helps us get from A to B quicker

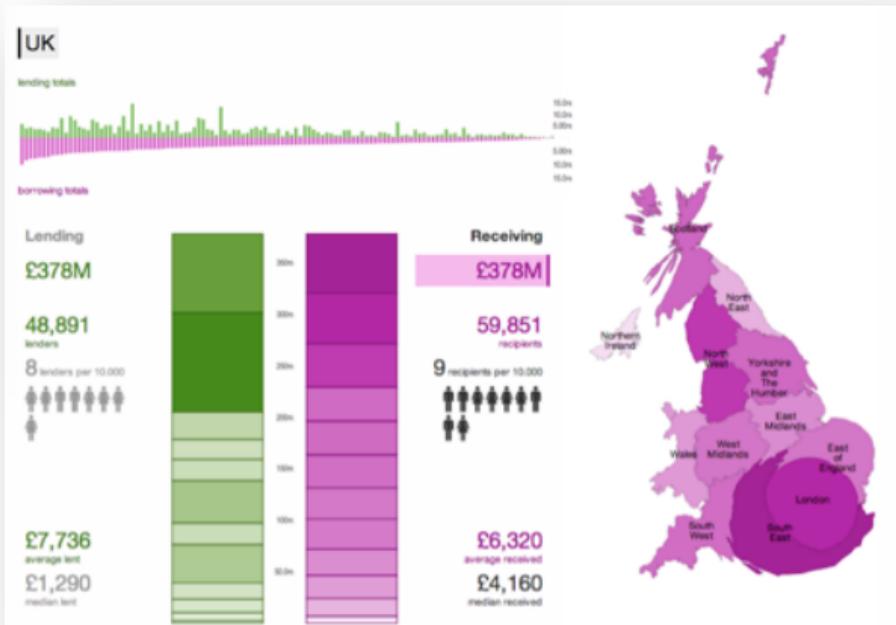
## Open data can help make decisions that affect our safety



# Economic Data



Open data identified a £1bn industry, and changed the regulation of this industry.

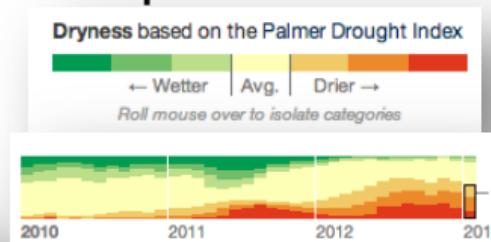
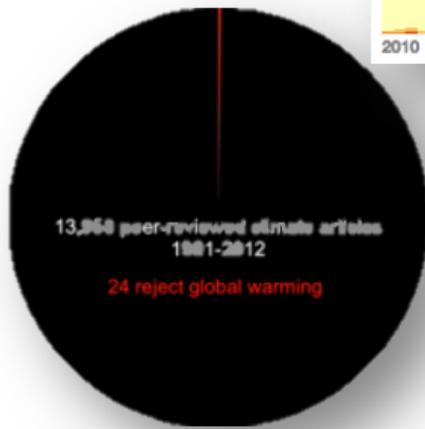


Open data reveals how countries spend (or underspend) their budgets.



# Environmental Data

Open data shows the clear picture of our planet

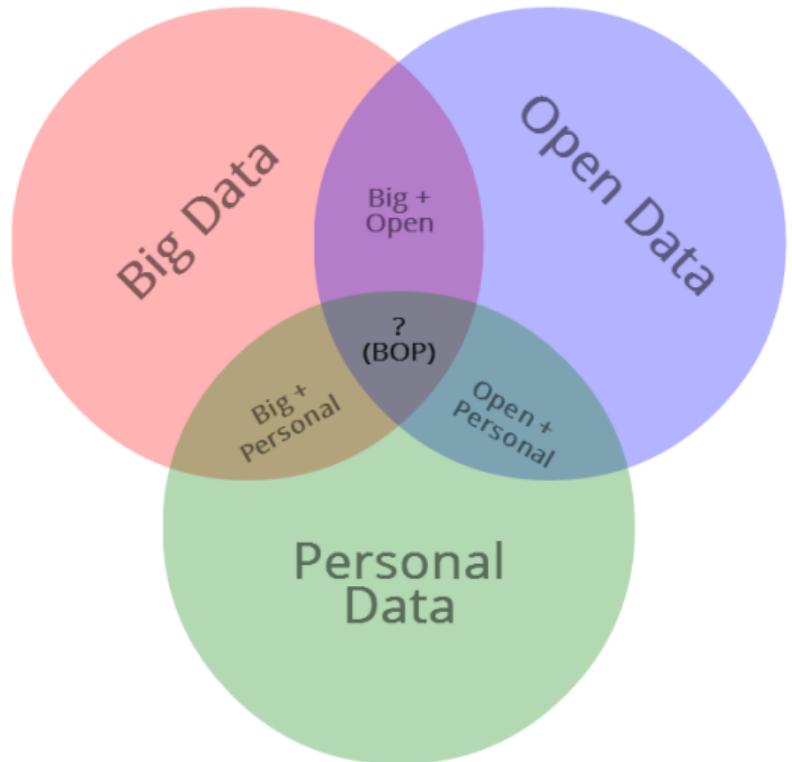


Open data makes us aware of the impact we have on our planet

- Public Services – innovation and savings
- Civil Society – enables greater scrutiny
- Private Sector – enhances services

**Enables benefits across the economy**

# Challenges and Risks



# Types of personal data

## **Open** personal data

Data about people  
not a person

Available to anyone

Has been anonymised

e.g. number of people attending  
event, gender split, age ranges.  
(bigger numbers are better!)

## **Available** personal data

Data about a person  
Available to the person only!

Often known as MiData

e.g. credit scores, energy and other  
consumption data.

## **Personal** data

Data about a person  
which is neither open  
nor available.

Might belong to you or  
be collected by a  
company.

# Opportunities

## Open Data

Brings transparency, open peer review

## Big Data

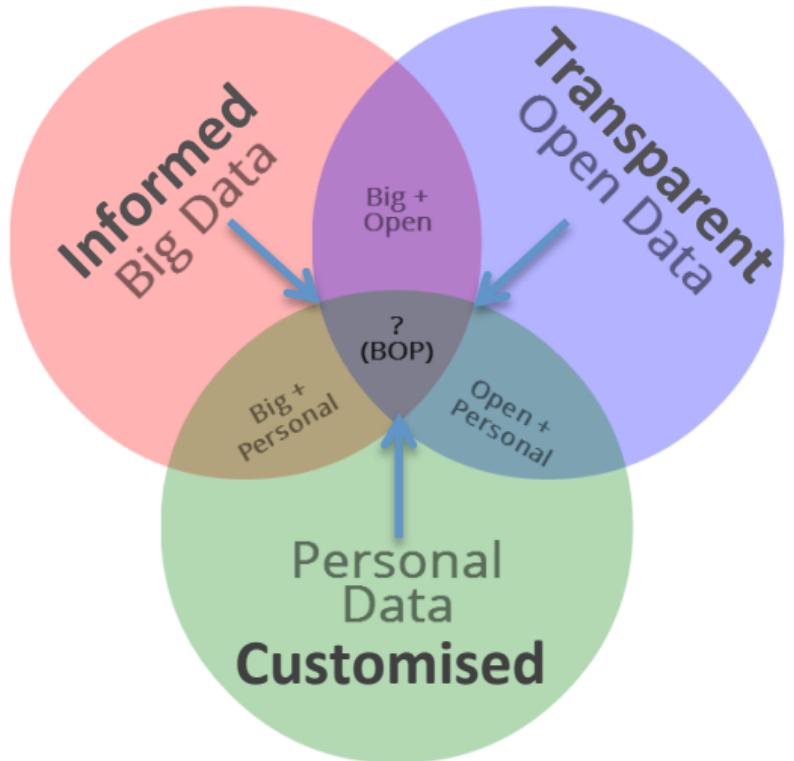
Brings the evidence

## Personal Data

Makes it relevant



# Opportunity



# Why now?



# Why now?



## Policy Drivers



## Technical Standards

## Best Practice Guidelines

# Open Data

## Best Practice Guidelines



Open Knowledge  
Foundation



## Technical Standards



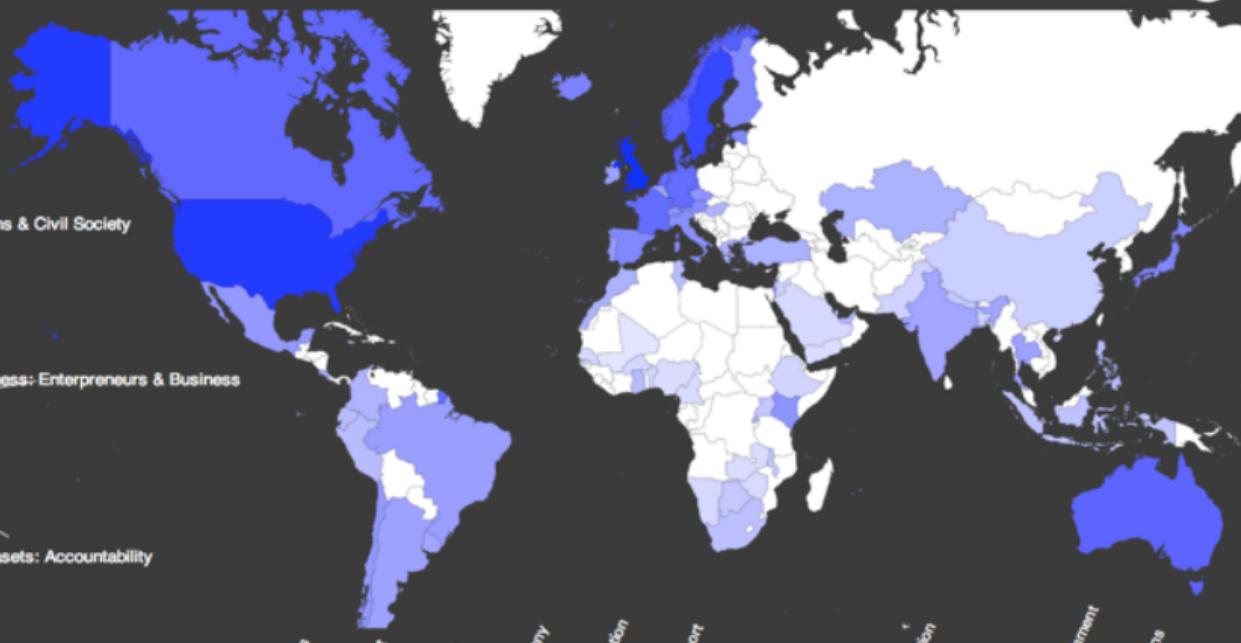
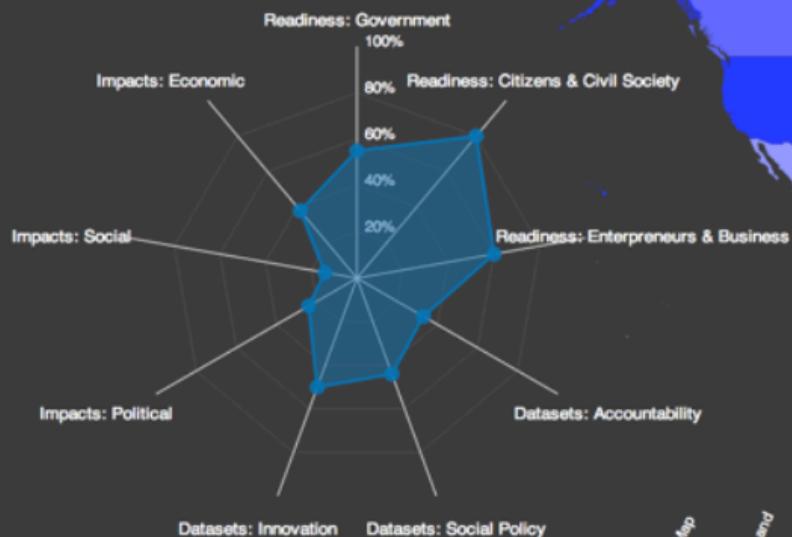
## Policy Drivers





# Switzerland \$\$\$\$

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OpenData  
Barometer

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since the web itself

