Open Data in Practice

http://training.theodi.org/InPractice

David Tarrant · @davetaz

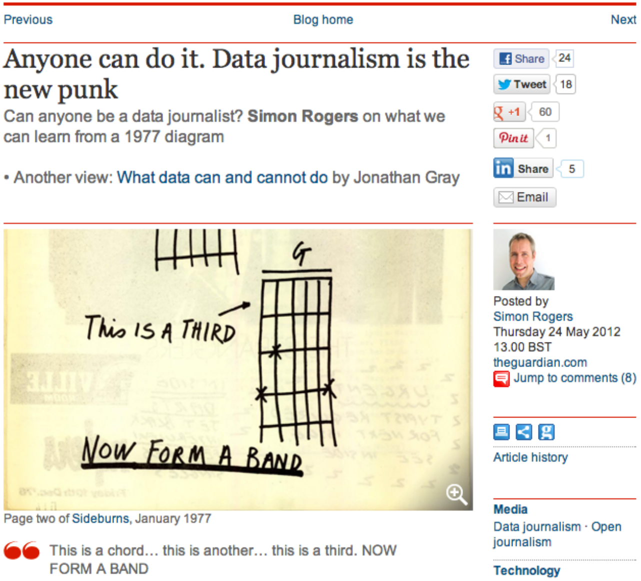
The data percolator

Validating and enriching data

Day 3: Session 1

The 80/20 of open data

DATABLOG
Facts are sacred



Previous Blog home Next

Anyone can do it. Data journalism is the new punk

Can anyone be a data journalist? **Simon Rogers** on what we can learn from a 1977 diagram

• Another view: What data can and cannot do by Jonathan Gray

Page two of Sideburns, January 1977

This is a chord… this is another… this is a third. NOW FORM A BAND

Posted by
Simon Rogers
Thursday 24 May 2012
13.00 BST
theguardian.com
Jump to comments (8)

Article history

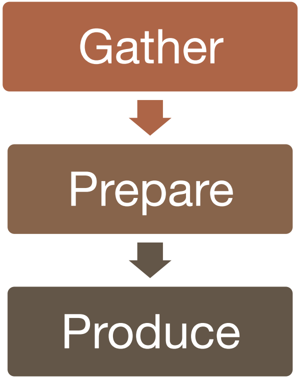
Media
Data journalism · Open journalism

Technology

http://www.theguardian.com/news/datablog/2012/may/24/data-journalism-punk

The data percolator

Data percolation: A model of data preparation and analysis



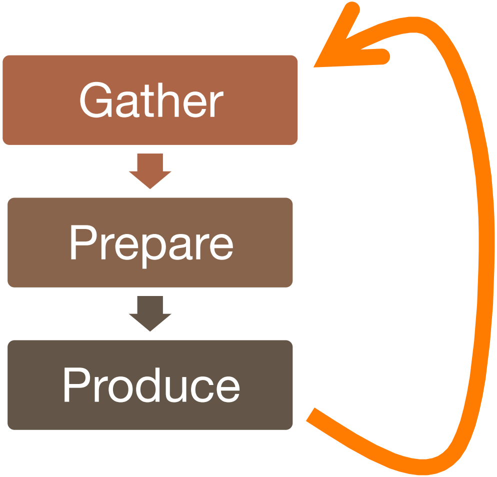
Gather

Prepare

Produce

See also: the Data Journalism Handbook

Data percolation: A model of data preparation and analysis

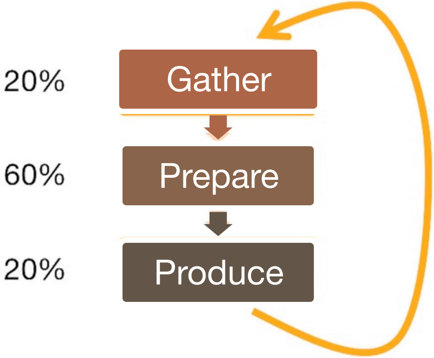


Gather

Prepare

Produce

How should I budget my time?



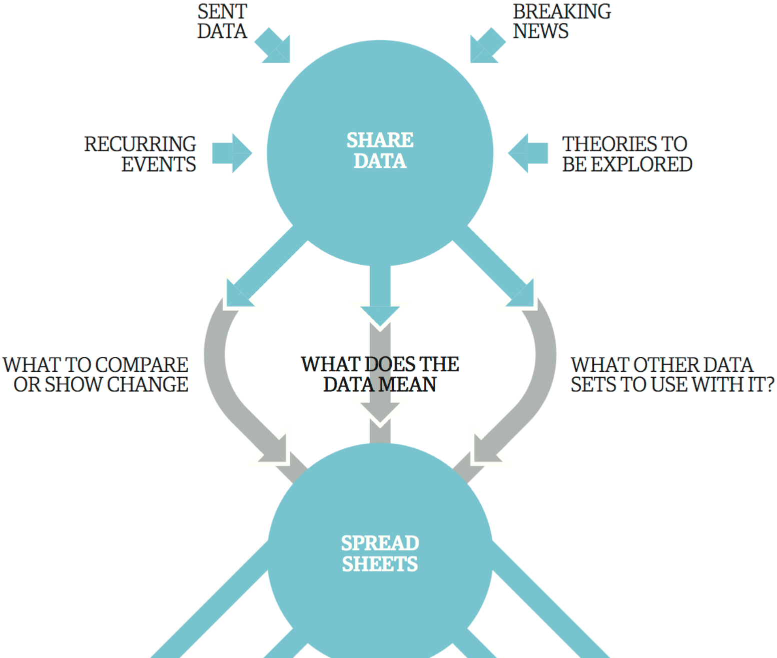
20% Gather

60% Prepare

20% Produce

Finding a story is a creative process.

Let it percolate!



SENT DATA

BREAKING NEWS

RECURRING EVENTS

SHARE DATA

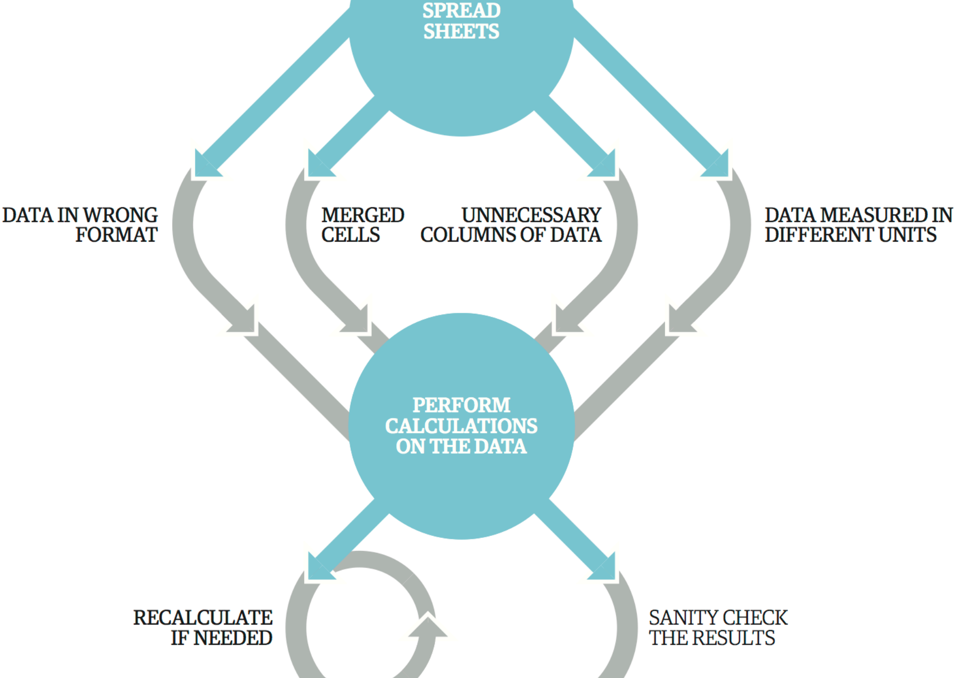
THEORIES TO BE EXPLORED

WHAT TO COMPARE OR SHOW CHANGE

WHAT DOES THE DATA MEAN

WHAT OTHER DATA SETS TO USE WITH IT?

SPREAD SHEETS



SPREAD SHEETS

DATA IN WRONG FORMAT

MERGED CELLS

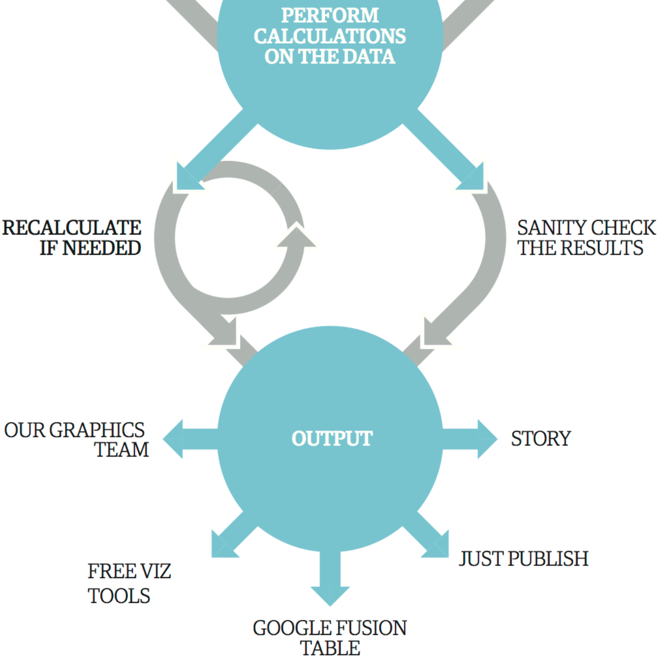
UNNECESSARY COLUMNS OF DATA

DATA MEASURED IN DIFFERENT UNITS

PERFORM CALCULATIONS ON THE DATA

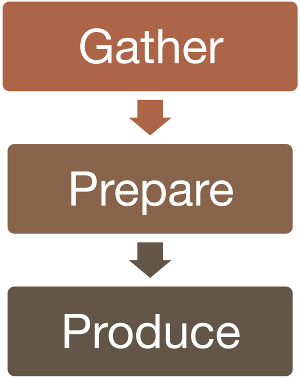
RECALCULATE IF NEEDED

SANITY CHECK THE RESULTS



PERFORM CALCULATIONS ON THE DATA
RECALCULATE IF NEEDED
SANITY CHECK THE RESULTS
OUTPUT
OUR GRAPHICS TEAM
STORY
FREE VIZ TOOLS
GOOGLE FUSION TABLE
JUST PUBLISH

How should I budget my time?



Gather

Prepare

Produce

1.1 **FIND** reliable data sources

1.2 Understand your **RIGHTS**

1.3 Visualise and **UNDERSTAND** your data

2.1 **CLEAN** your data

2.2 **TRANSFORM** it where useful

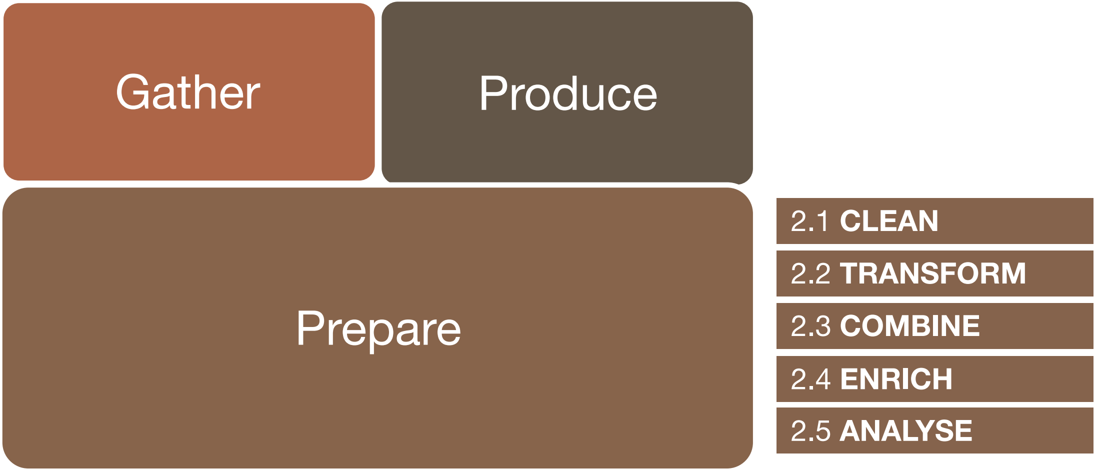
2.3 **COMBINE** it with other data sets

3.1 **REDUCE** and find the story

3.2 Think and understand the **CONTEXT**

3.3 Do your results pass a **SENSE-CHECK**?

Time planning



Gather

Produce

Prepare

2.1 **CLEAN**

2.2 **TRANSFORM**

2.3 **COMBINE**

2.4 **ENRICH**

2.5 **ANALYSE**

Validating and cleaning data

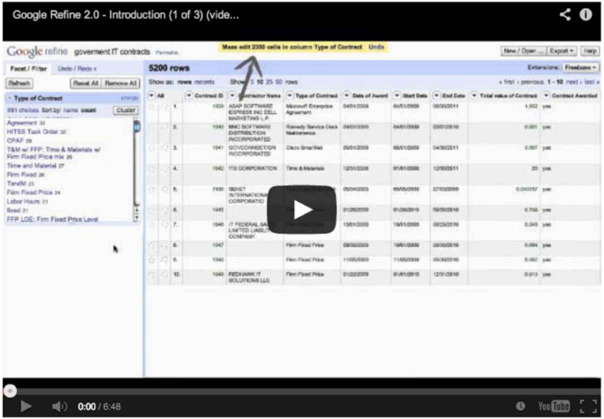
Inception points: cross filters, outliers and comparisons

Prepare (Stage 1)

Prepare

- 2.1 **CLEAN**
- 2.2 **TRANSFORM**
- 2.3 **COMBINE**
- 2.4 **ENRICH**
- 2.5 **ANALYSE**

Introducing Open Refine



Google Refine 2.0 - Introduction (1 of 3) (vide...

Google refine goverment IT contracts Permalink

Mass edit 2350 cells in column Type of Contract Undo

Type of Contract change

691 choices Sort by: name count Cluster

- Agreement 33
- HITSS Task Order 32
- CPAF 29
- T&M w/ FFP: Time & Materials w/ Firm Fixed Price mix 29
- Time and Material 27
- Firm Fixed 26
- TandM 25
- Firm Fixed Price 24
- Labor Hours 21
- fixed 21
- FFP LOE: Firm Fixed Price Level

5200 rows

Show as: rows records Show: 5 10 25 50 rows

« first ‹ previous 1 - 10 next › last »

All			Contract ID	Contractor Name	Type of Contract	Date of Award	Start Date	End Date	Total value of Contract	Contract Awarded
☆		1.	1939	ASAP SOFTWARE EXPRESS INC DELL MARKETING L.P.	Microsoft Enterprise Agreement	04/01/2009	04/01/2009	06/30/2011	1.952	yes
☆		2.	1940	BMC SOFTWARE DISTRIBUTION INCORPORATED	Remedy Service Desk Maintenance	04/01/2009	04/01/2009	03/31/2010	0.001	yes
☆		3.	1941	GOVCONNECTION INCORPORATED	Cisco SmartNet	05/01/2009	05/01/2009	04/30/2011	0.007	yes
☆		4.	1942	ITS CORPORATION	Time & Materials	12/31/2008	01/01/2009	12/30/2011	20	yes
☆		5.	7490	SENET INTERNATIONAL CORPORATIO	[illegible]	05/04/2009	05/05/2009	07/03/2009	0.040057	yes
☆		6.	1945		[illegible]	01/26/2009	01/26/2010	09/30/2010	0.795	yes
☆		7.	1946	IT FEDERAL SALES LIMITED LIABILITY COMPANY	[illegible]	10/01/2009	10/01/2009	09/25/2010	0.049	yes
☆		8.	1947		Firm Fixed Price	09/30/2009	10/01/2009	09/30/2010	0.884	yes
☆		9.	1948		Firm Fixed Price	11/05/2009	11/05/2009	05/30/2010	0.062	yes
☆		10.	1949	REDHAWK IT SOLUTIONS LLC	Firm Fixed Price	01/22/2009	01/01/2010	12/31/2010	0.013	yes

http://openrefine.org

Exercise

Validating and cleaning data exercise

Focus on sections:

2) Multiple representations

4) Summation records

5) Mixed use of numerical scales

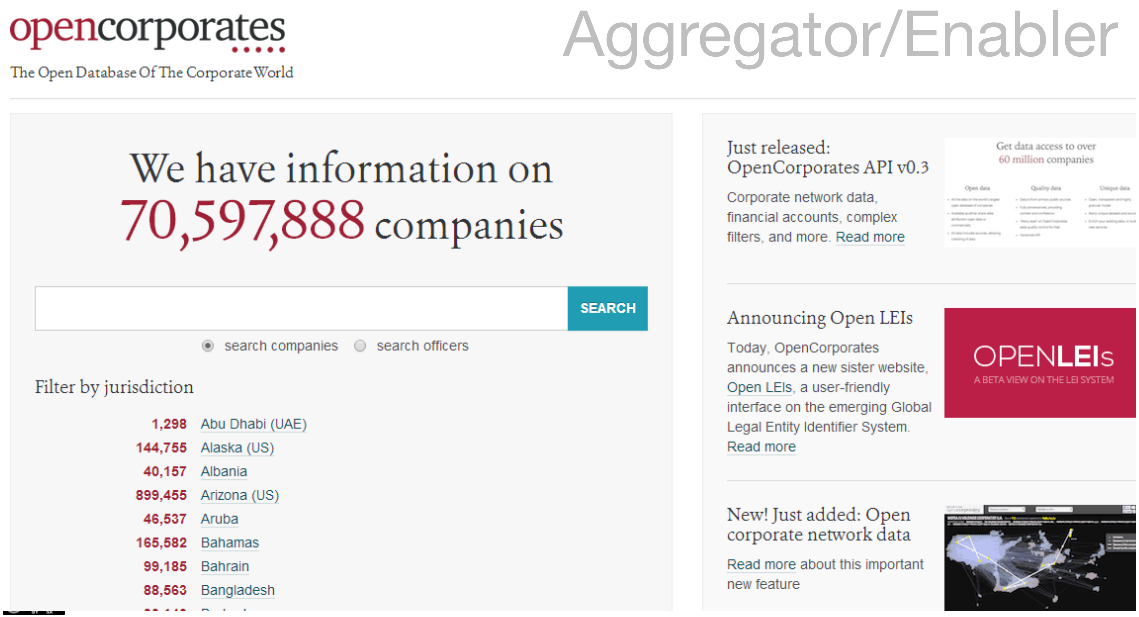
Prepare

Prepare

- 2.1 **CLEAN**
- 2.2 **TRANSFORM**
- 2.3 **COMBINE**
- 2.4 **ENRICH**
- 2.5 **ANALYSE**

Enriching data and using pivot tables

Aggregator/Enabler



opencorporates

The Open Database Of The Corporate World

We have information on 70,597,888 companies

SEARCH

● search companies ○ search officers

Filter by jurisdiction

1,298	Abu Dhabi (UAE)
144,755	Alaska (US)
40,157	Albania
899,455	Arizona (US)
46,537	Aruba
165,582	Bahamas
99,185	Bahrain
88,563	Bangladesh

Just released: OpenCorporates API v0.3

Corporate network data, financial accounts, complex filters, and more. Read more

Announcing Open LEIs

Today, OpenCorporates announces a new sister website, Open LEIs, a user-friendly interface on the emerging Global Legal Entity Identifier System. Read more

New! Just added: Open corporate network data

Read more about this important new feature

Exercise

Enriching a dataset containing company names (e.g. transactions) with company data from OpenCorporates

Sense-checking

The best way to sense-check is to get a second pair of eyes to help you.

Any stories of common mistakes you'd like to share?

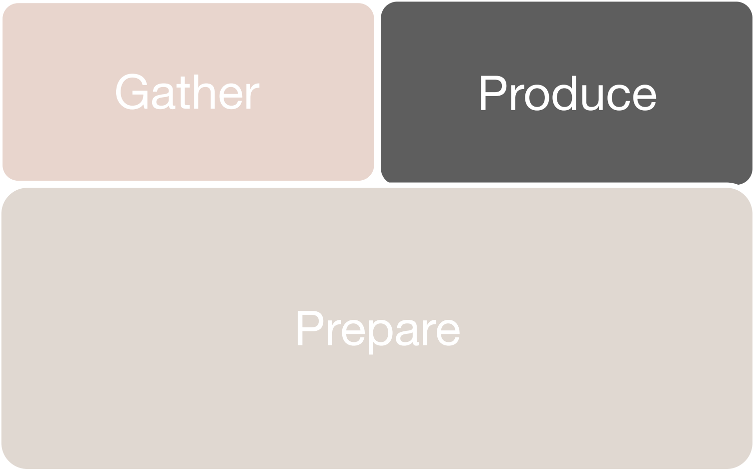
Infographics: The good the bad and the ugly

Charts: What to use and when

Colour, popout and order

Session 4
Infographics

Recap



Gather

Produce

Prepare

3.1 **REDUCE**

3.2 **CONTEXT**

3.3 **SENSE**

Infographics (separate presentation)

Thank-you