



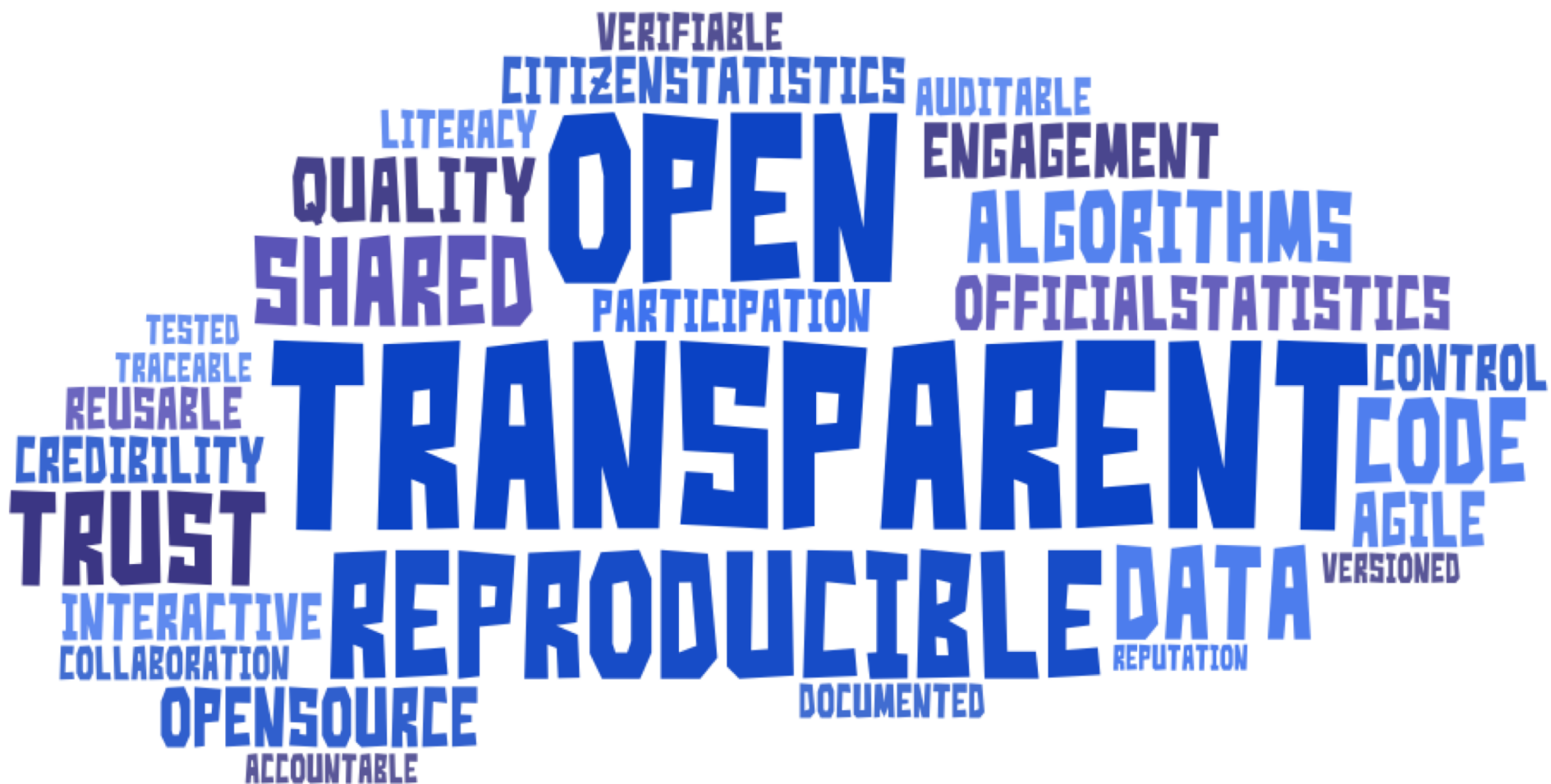
Conference of European Statistics Stakeholders 2018

Empowering and interacting with statistical producers: a practical example with Eurostat data as a service

J. Grazzini, J.M. Museux & M. Hahn

Eurostat unit on Methodology and innovation in official statistics

In a nutshell (*aka* wordcloud)



Empowering and interacting with producers... **Outline**

- ✓ *Bitte schön*
- ✓ *A.1* Was?
- ✓ *A.2* Während?
- ✓ *B.1* Warum wieso warum?
- ✓ *B.2* Wie?
- ✓ *C.1* Wer?
- ✓ *C.2* Dann?
- ✓ *Danke schön*

Was is “empowering and interacting” about?

and transparency and reproducibility

Opening up: Society

How openness can transform ~~society~~

official statistics beforehand 😊

Digital technology has the potential to address Europe’s social challenges by opening them up to scrutiny, participation and innovation.

Written by The Economist Intelligence Unit

Während a time of paradigm change and...

BUCHAREST MEMORANDUM

on Official Statistics in a Datafied Society (Trusted Smart Statistics)

104th DGINS Conference, Bucharest, 10th and 11th October 2018

As adopted by the European Statistical System Committee (ESSC) meeting
on the 12th October 2018

Statistical Session: "The European path towards Trusted Smart Statistics"

The long read

**How statistics lost their
power – and why we
should fear what comes
next**

ALGORITHMS AND HUMAN RIGHTS

Study on the human rights dimensions of
automated data processing techniques and
possible regulatory implications

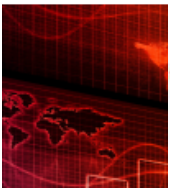


Council of Europe study
DGI(2017)12

Prepared by the committee of experts
on internet intermediaries (MSI-NET)

Während a time of m/distrust

Communication of statistics in post-truth society: the good, the bad and the ugly



FAKE
NEWS

Can we trust AI if we don't know how it works?

By Marianne Lehnis
Technology of Business reporter

15 June 2018



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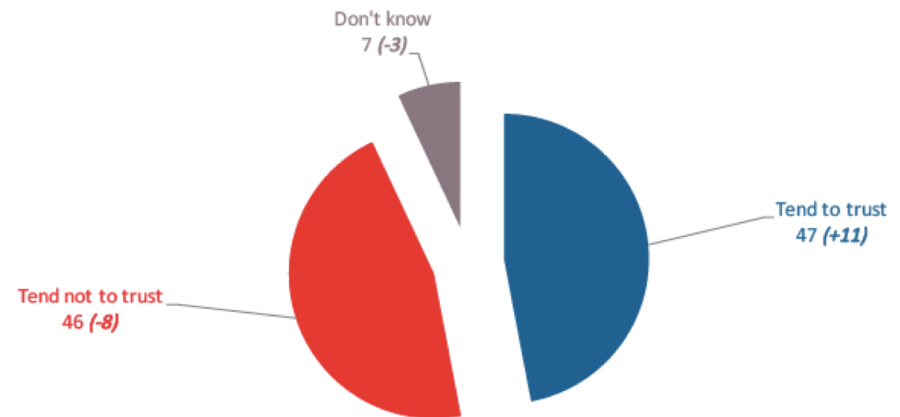
Bloggers

Tags

Contact

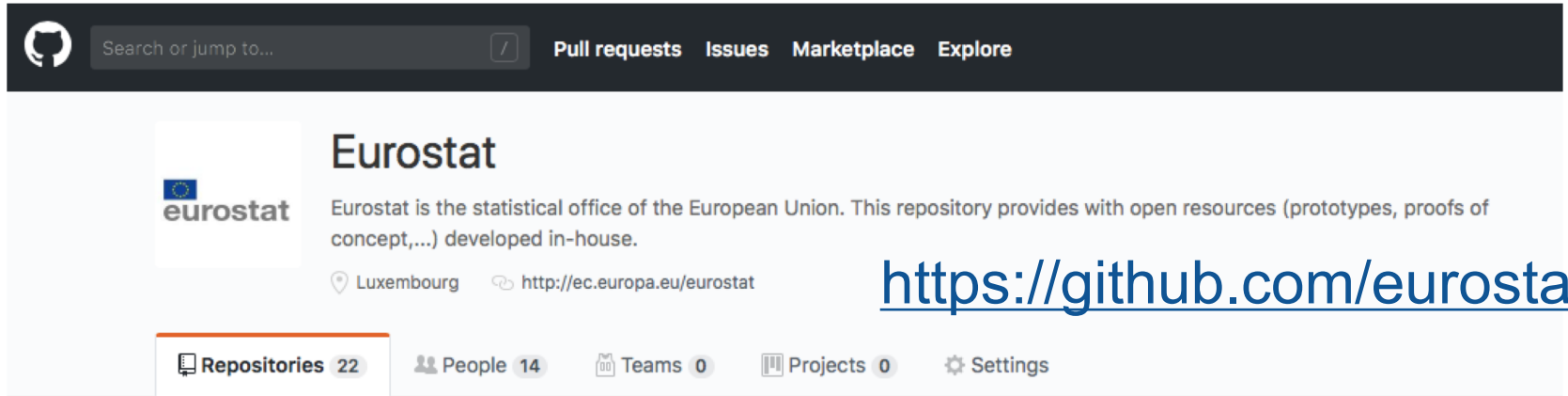
Official Statistics in a Post-Truth World

The European Union (% - EU)



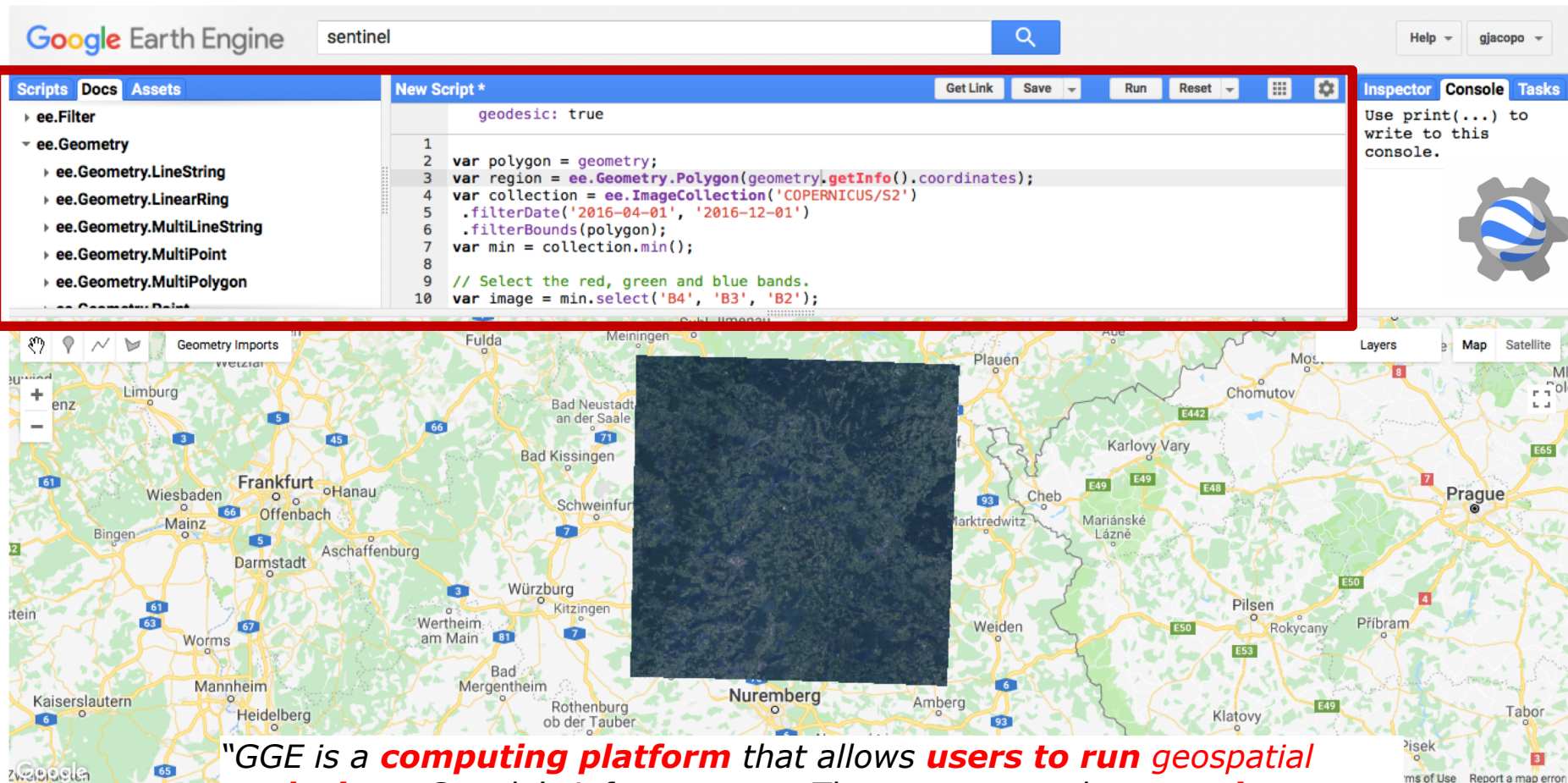
Warum wieso warum “empowering and interacting”?

Warum nicht?



<https://github.com/eurostat/happyGISCO>

Wie can we “empower and interact”: the good,...



The screenshot displays the Google Earth Engine web interface. At the top, the 'Google Earth Engine' logo is on the left, a search bar with 'sentinel' is in the center, and 'Help' and 'gjacopo' dropdown menus are on the right. Below the header, there's a blue navigation bar with 'Scripts', 'Docs', and 'Assets' tabs. The 'Scripts' tab is active, showing a 'New Script *' editor. The script contains the following code:

```
geodesic: true
1
2 var polygon = geometry;
3 var region = ee.Geometry.Polygon(geometry.getInfo().coordinates);
4 var collection = ee.ImageCollection('COPERNICUS/S2')
5   .filterDate('2016-04-01', '2016-12-01')
6   .filterBounds(polygon);
7 var min = collection.min();
8
9 // Select the red, green and blue bands.
10 var image = min.select('B4', 'B3', 'B2');
```

To the right of the script editor is the 'Inspector' panel, which shows a message: 'Use print(...) to write to this console.' Below this is a gear icon. The bottom half of the interface shows a map of Central Europe, with a dark, rectangular satellite image overlay centered over the region between Frankfurt and Prague. The map includes labels for various cities and roads. On the right side of the map, there are tabs for 'Layers', 'Map', and 'Satellite'.

"GGE is a **computing platform** that allows **users to run geospatial analysis** on Google's infrastructure. There are several ways to **interact with the platform**. The Code Editor is a web-based IDE for **writing and running scripts**. The Explorer is a lightweight web app for **exploring our data catalog and running simple analyses**."

Wie can we “empower and interact”: the bad,...





- AS
 - AT
 - AT-label-3235-2016.geonjson
 - AT-label-4258-2016.geonjson
 - AT-region-01-m-3035-2016.geonjson
 - AT-region-01-m-3857-2016.geonjson
 - AT-region-01-m-4258-2016.geonjson
 - AT-region-01-m-4326-2016.geonjson
 - AT-region-03-m-3035-2016.geonjson
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 - AT-region-20-m-3857-2016.geonjson
 - AT-region-20-m-4258-2016.geonjson
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 - AT-region-60-m-3857-2016.geonjson
 - AT-region-60-m-4258-2016.geonjson
 - AT-region-60-m-4326-2016.geonjson
- AT1
 - AT1-label-3035-2016.geonjson
 - AT1-label-4258-2016.geonjson
 - AT1-region-01-m-3035-2016.geonjson
 - AT1-region-01-m-3857-2016.geonjson
 - AT1-region-01-m-4258-2016.geonjson
 - AT1-region-01-m-4326-2016.geonjson
 - AT1-region-03-m-3035-2016.geonjson
 - AT1-region-03-m-3857-2016.geonjson
 - AT1-region-03-m-4258-2016.geonjson

Leaflet | © OpenStreetMap contributors, Imagery © Mapbox
 (European Commission, OSM/BCE, European Eurostat, GISCO)

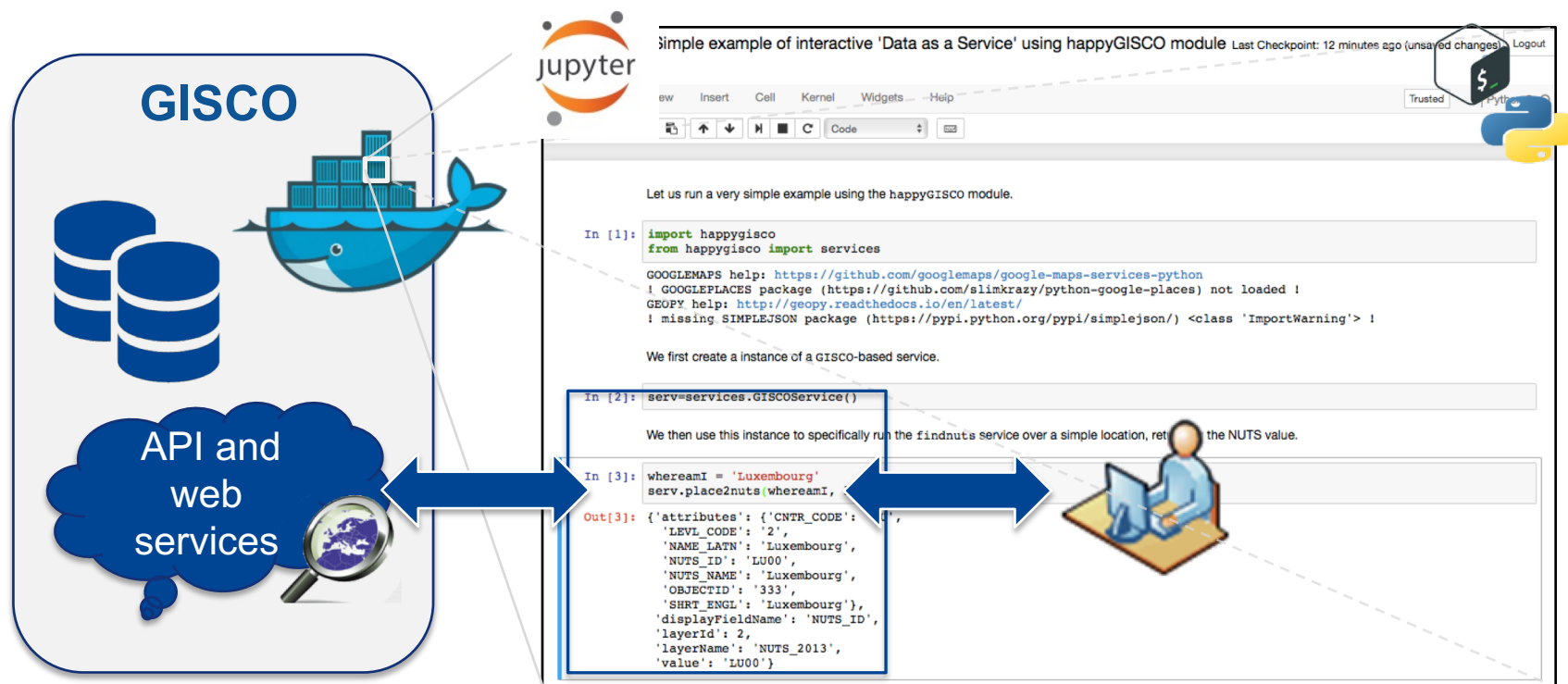
Scale	Feature type	Format	Period	Coordinate reference system	Version date	Files to download
	Polygon	Shapefile	2011	ETRS89 /	01/02/2016	GEOSTAT-grid-POP-1K-2011-V2-0-1.zip
					2012	GEOSTAT_Grid_POP_2006_1K.zip

GISCO API and web services

[illegible]

Eurostat Demografische Indikatoren

Wie can we “empower and interact”: towards the good



- ✓ **Data-centric:** Built on top of Eurostat GISCO flexible **APIs** and **web-services**.
- ✓ **Agile:** Distributed through platform independent **virtualised containers**.
- ✓ **User-driven:** Provide versatile **interactive computing notebooks**.

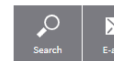
Wer is targeted? @producers



“What if we don’t change at all ...
and something magical just happens?”



nature
International journal of science



ent Research

n Research Analysis Careers Books & Culture

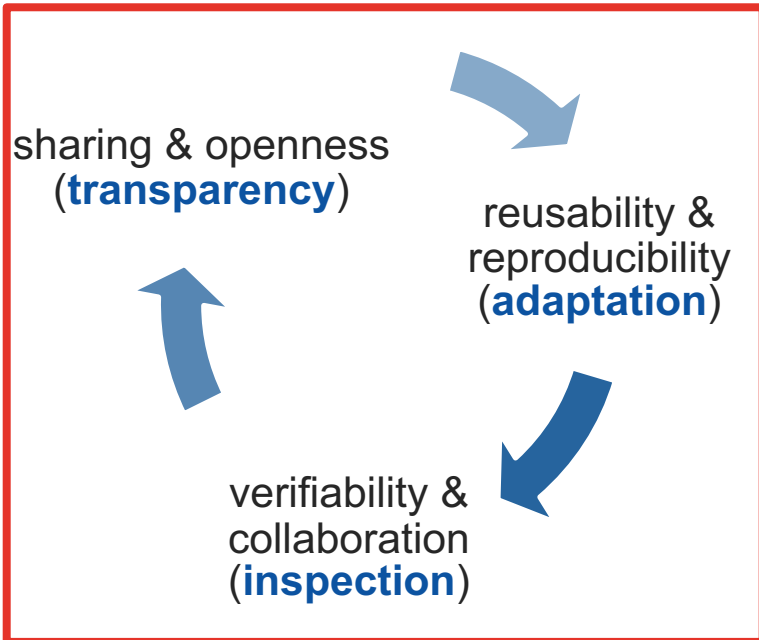
COMMENT • 28 NOVEMBER 2017

Five ways to fix statistics



**Ensure maintenance & quality,
increase trust & credibility, improve
collaboration and shared control,
engage actively, promote statistical
literacy.**

Wer is targeted? @policymakers

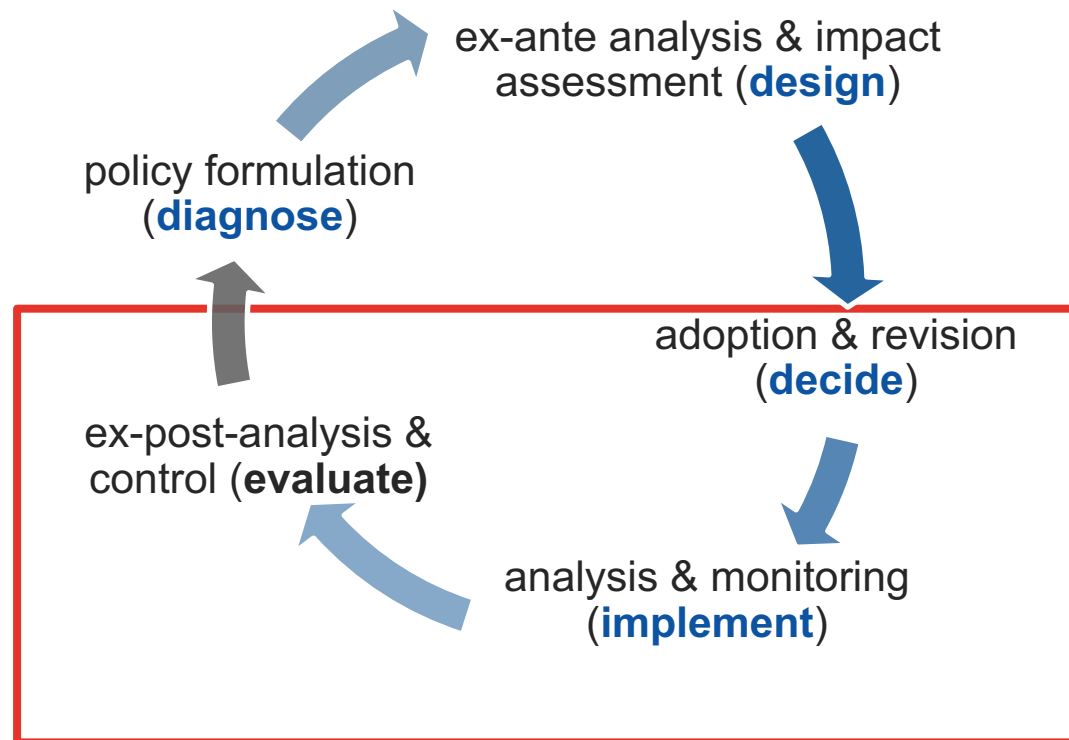


agile development

vs.

policymaking cycle

Provide the public with insights into the workings of decision-making systems to “judge for himself”.



Wer is targeted? @researchers

What the Reinhart & Rogoff Debacle Really Shows: Verifying Empirical Results Needs to be Routine

Published on April 19, 2013 in Uncategorized. 3 Comments

There's been an enormous amount of buzz since questioning the methodology in a published paper

OPEN ACCESS

ESSAY



Why Most Published Research Findings Are False

John P. A. Ioannidis



Perspective | OPEN | Published: 10 January 2017

A manifesto for reproducible science

Marcus R. Munafò, Brian A. Nosek, Dorothy V. M. Bishop, Katherine S. Button,

Christopher D. Chambers, Nicholas D. Christensen, Scott H. Holmbeck, Eric J. J.



NATURE | EDITORIAL

Journals unite for reproducibility

Consensus on reporting principles aims to improve quality control in research and encourage public trust in science.

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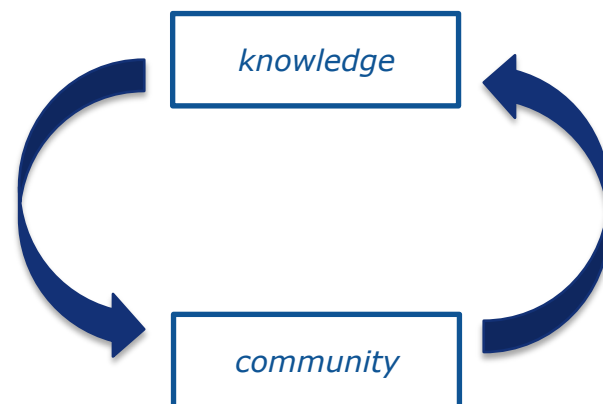
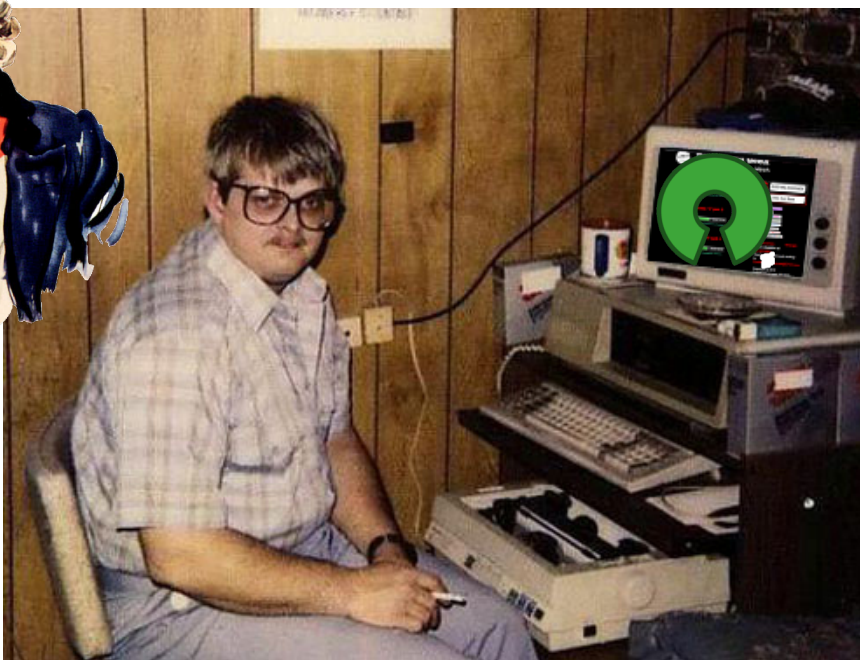
Data availability, reusability, and analytic reproducibility: evaluating the impact of a mandatory open data policy at journal *Cognition*

Tom E. Hardwicke, Maya B. Mathur, Kyle MacDonald, Gustav Nilsson, George C. Bai, Melissa C. Kibbi, Alice Hefelish, Maya E. Eklund, Clayton, Eric J. J.

Address the reproducibility crisis.

Wer is targeted? @users

#OpenData + #Hackathon \neq #OpenGovernment



Provide incentives for users to share back their analysis for the benefit of the community.

Dann is some mnemonic!

Participation

Reproducibility

Openness

Sharing

Transparency

Accountability

Trust

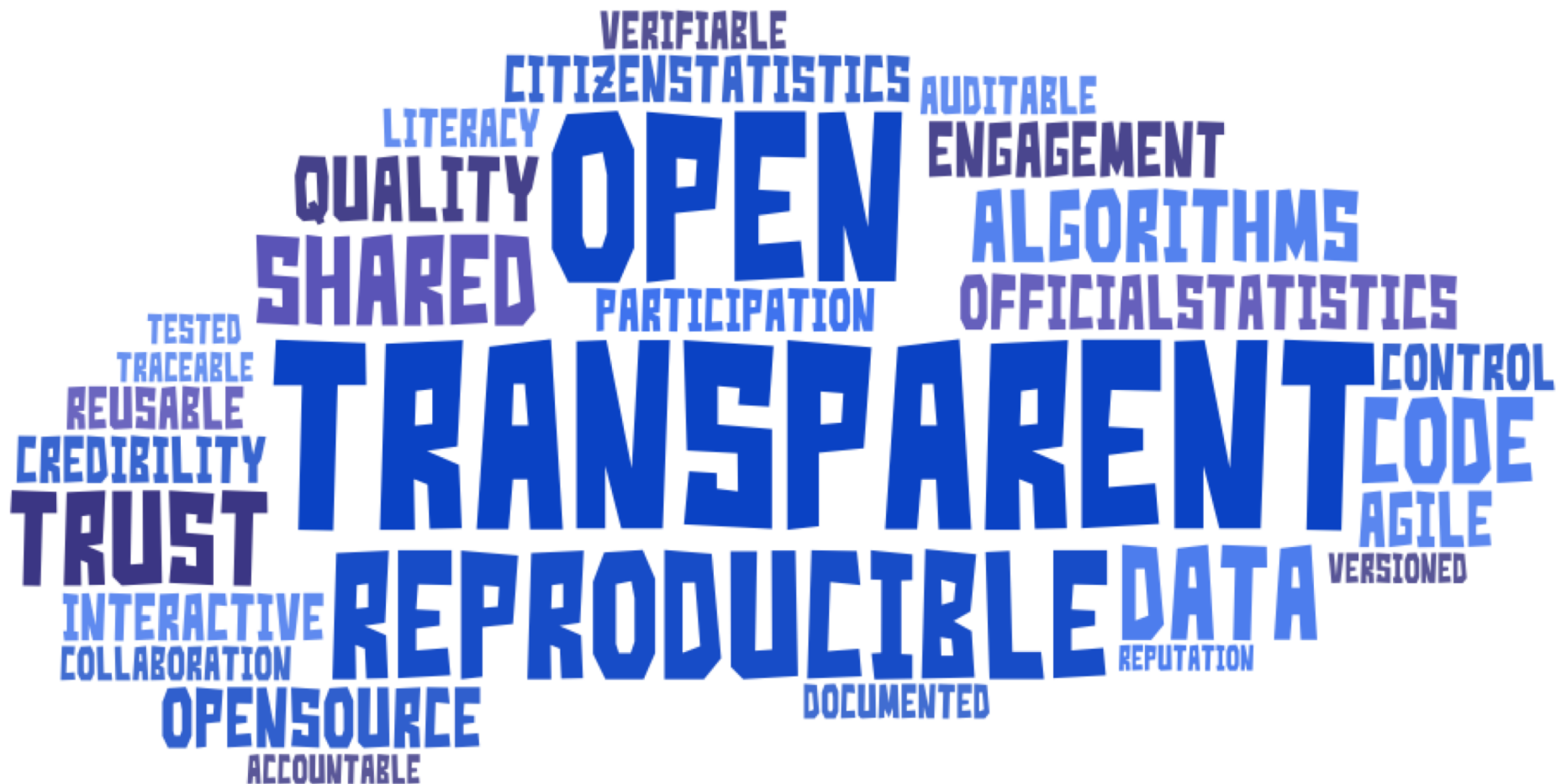
Engagement

“Modern” tools for producers and producers of Official Statistics.



“Sound” principles for producers and producers of Official Statistics.

Q's?



<http://nbviewer.jupyter.org/github/eurostat/happyGISCO/blob/master/notebooks/bamberg.ipynb>