Panorama des formats et des outils de la datavisualisation

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IAU, le 26 janvier 2017

DATACTIVIST

Objectifs

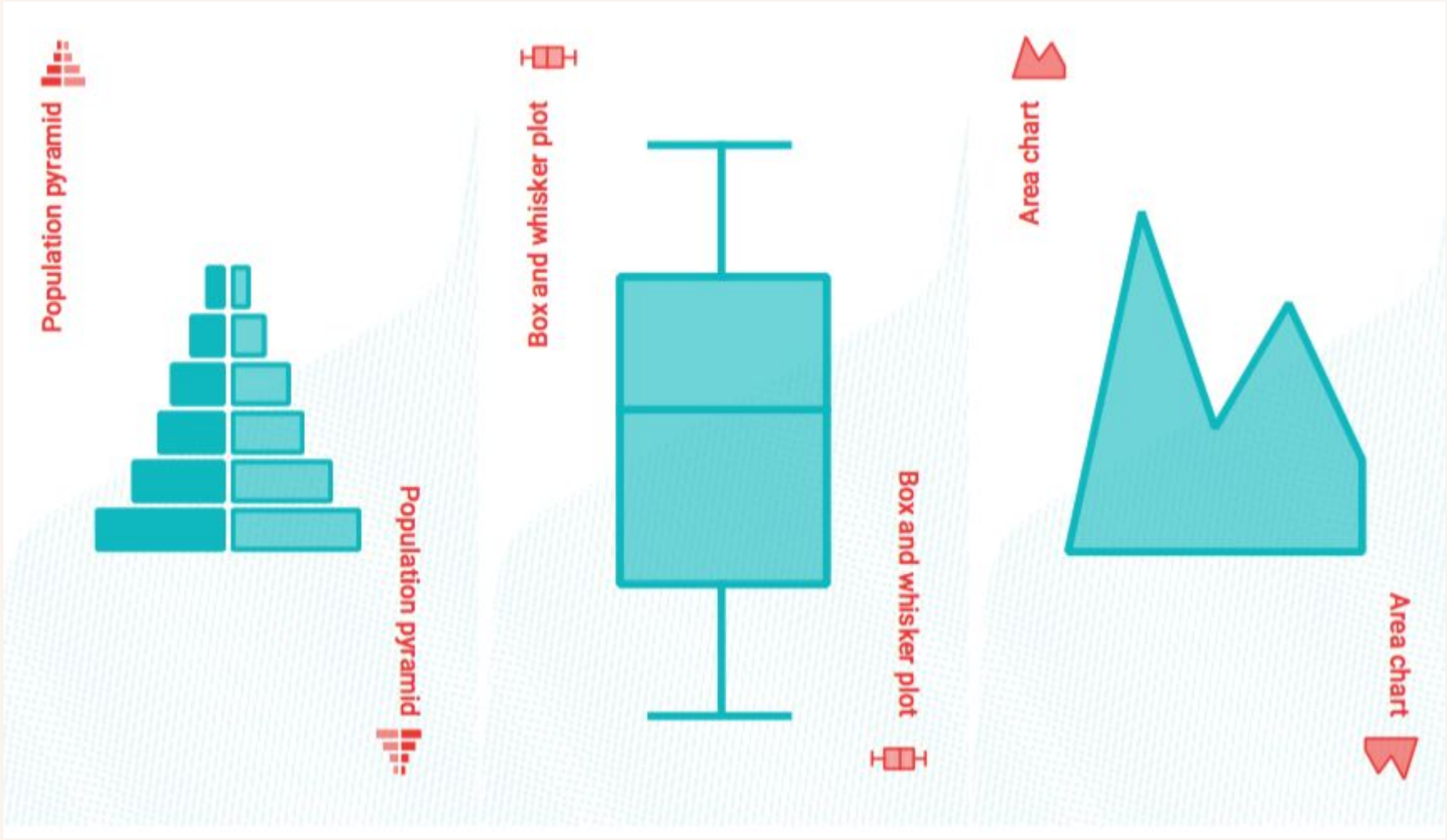
- Présenter les différentes fonctions de la data visualisation
- Apprendre à choisir un format de data visualisation selon la situationr
- Connaitre les principaux outils de visualisation
- Tester quelques outils grand public

Panorama de la data visualisation

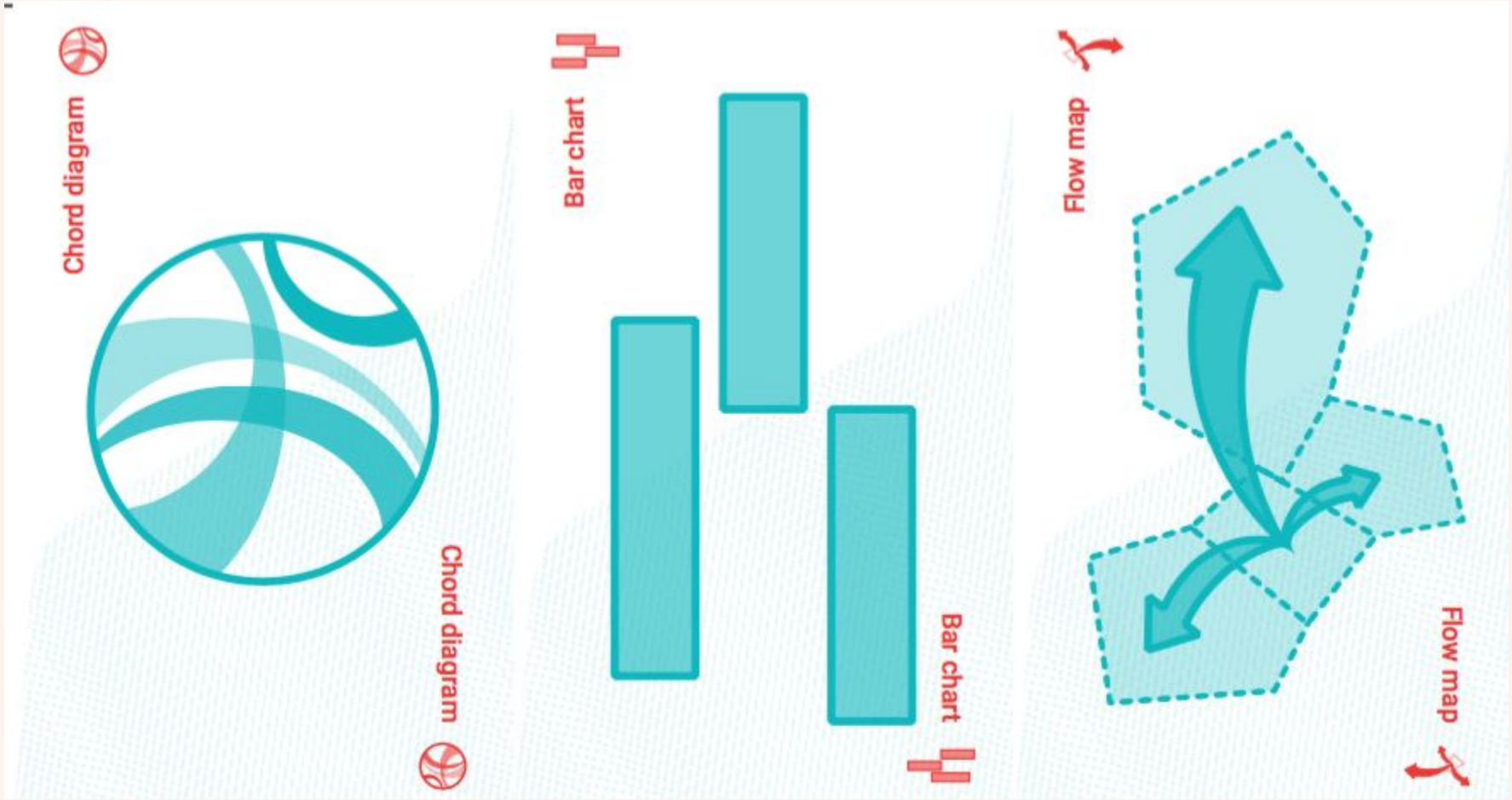
DATACTIVIST

Panorama des fonctions de visualisation

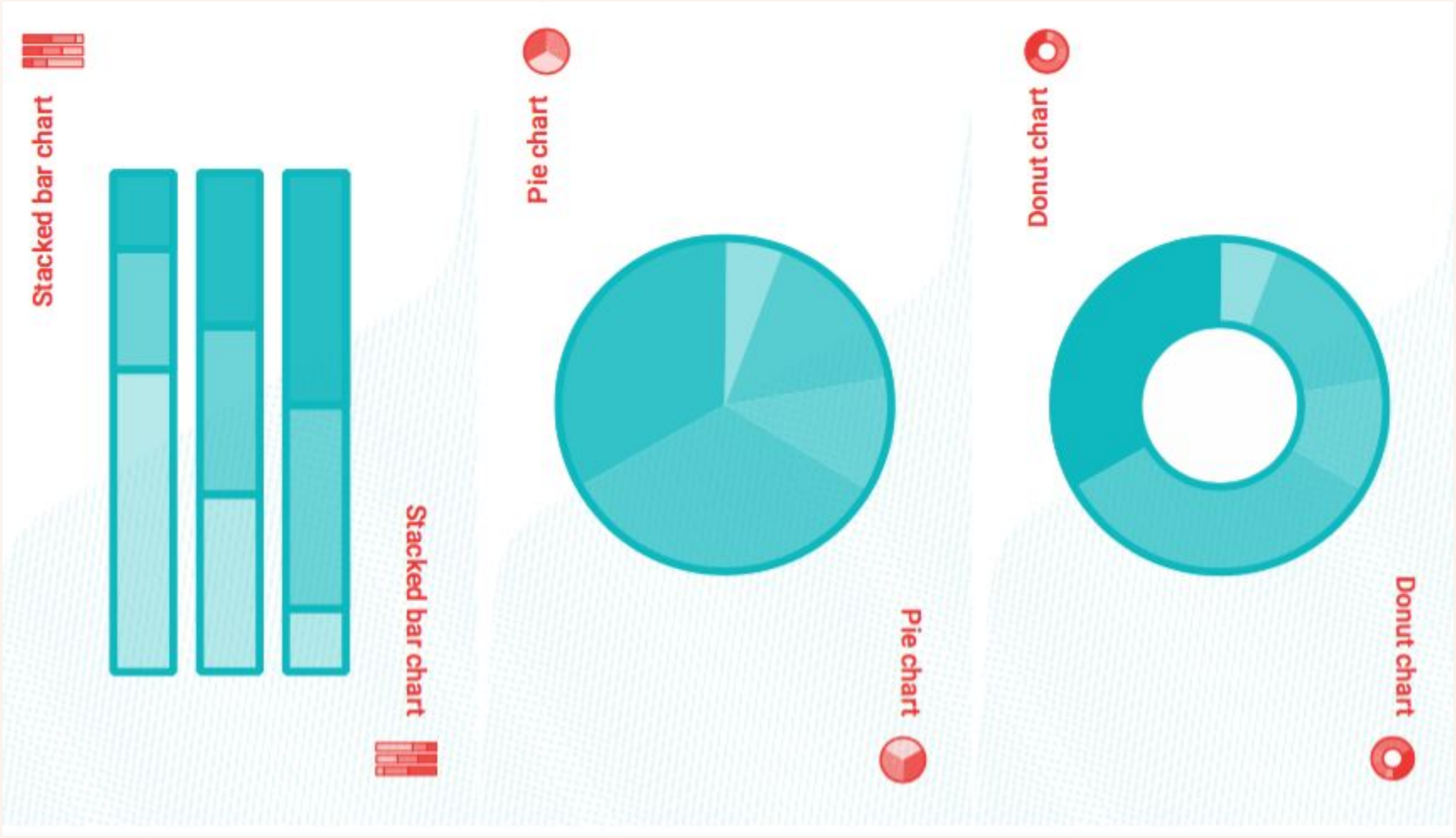
Panorama des formats de visualisation



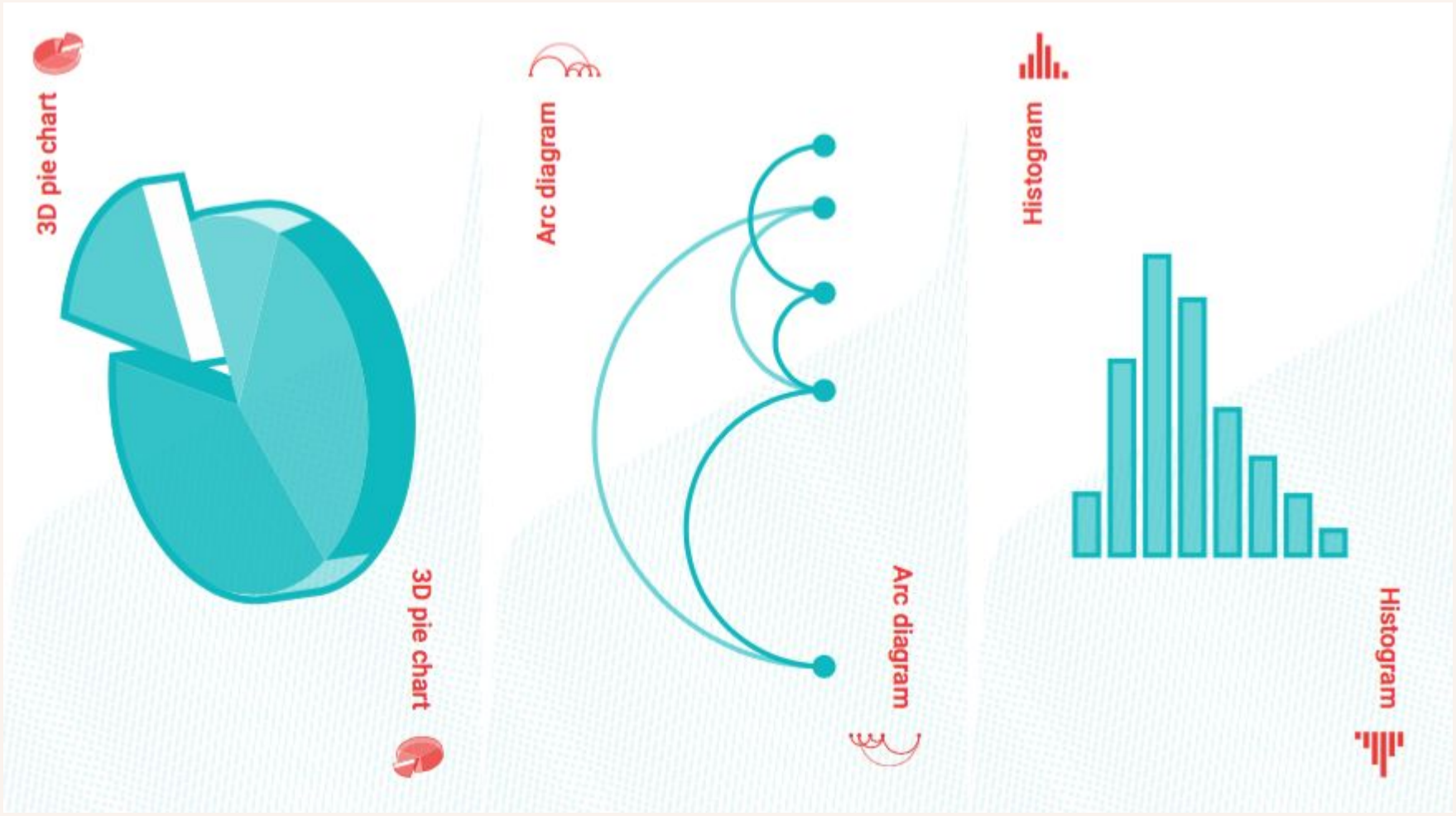
Panorama des formats de visualisation



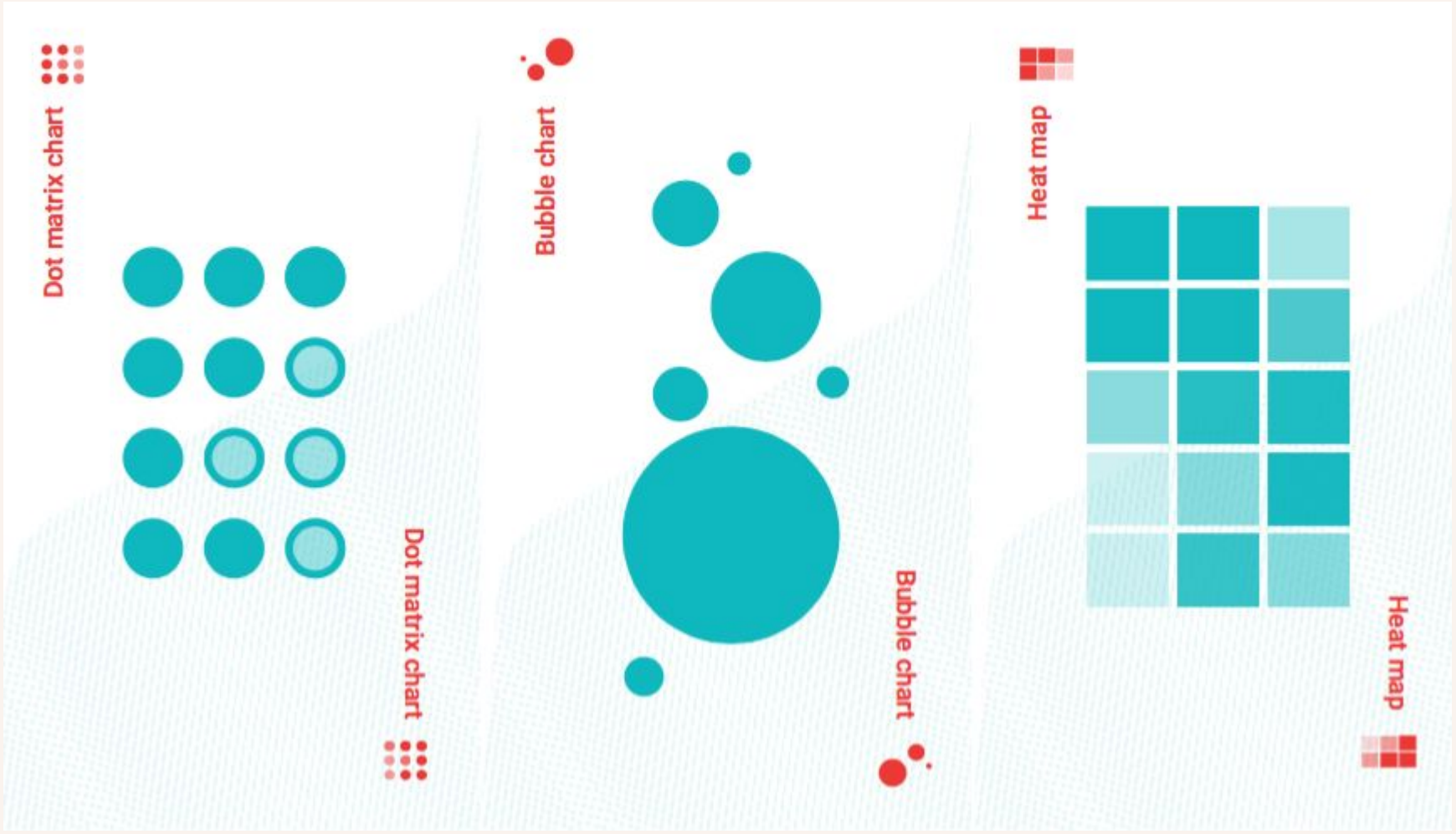
Panorama des formats de visualisation



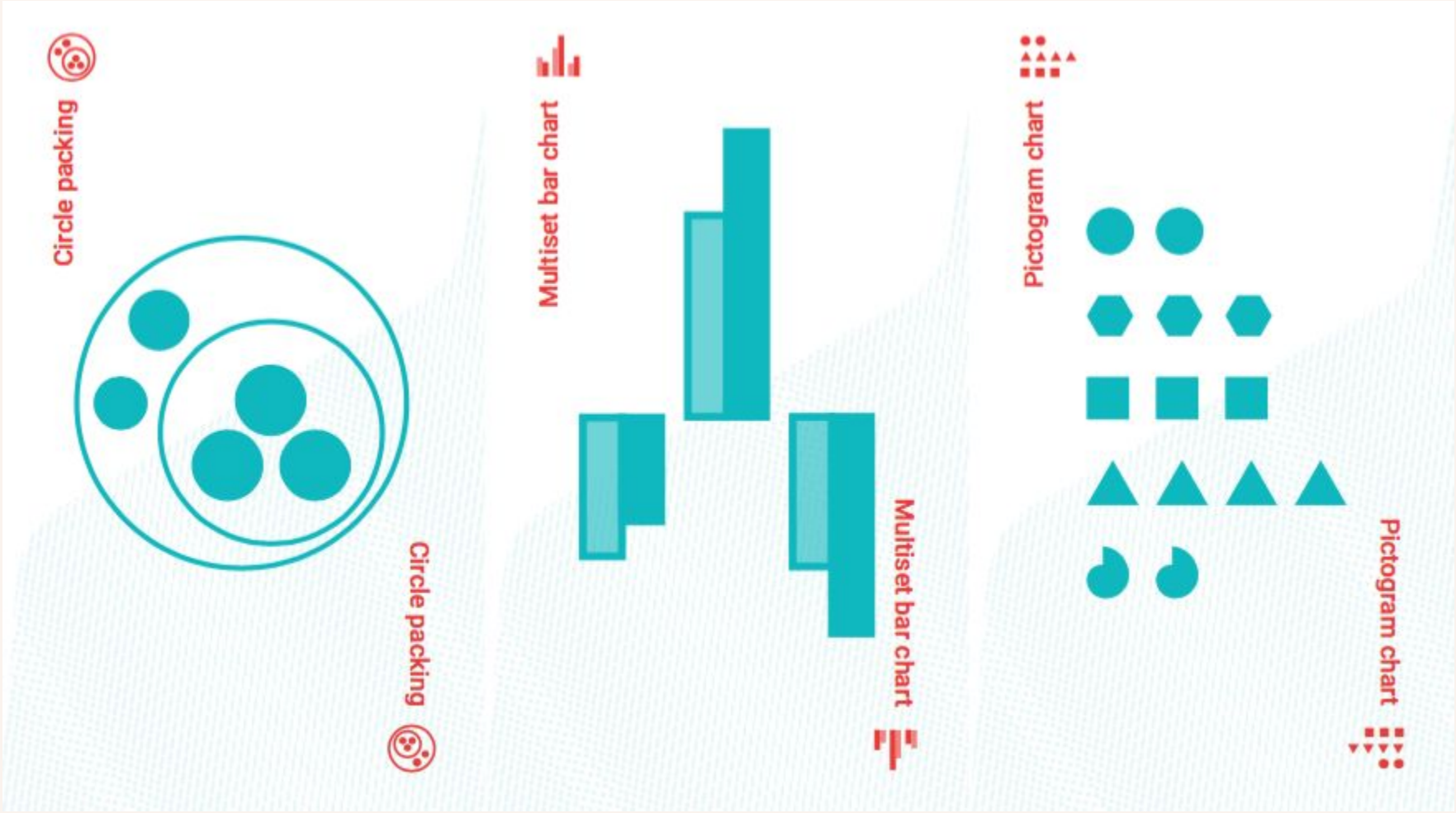
Panorama des formats de visualisation



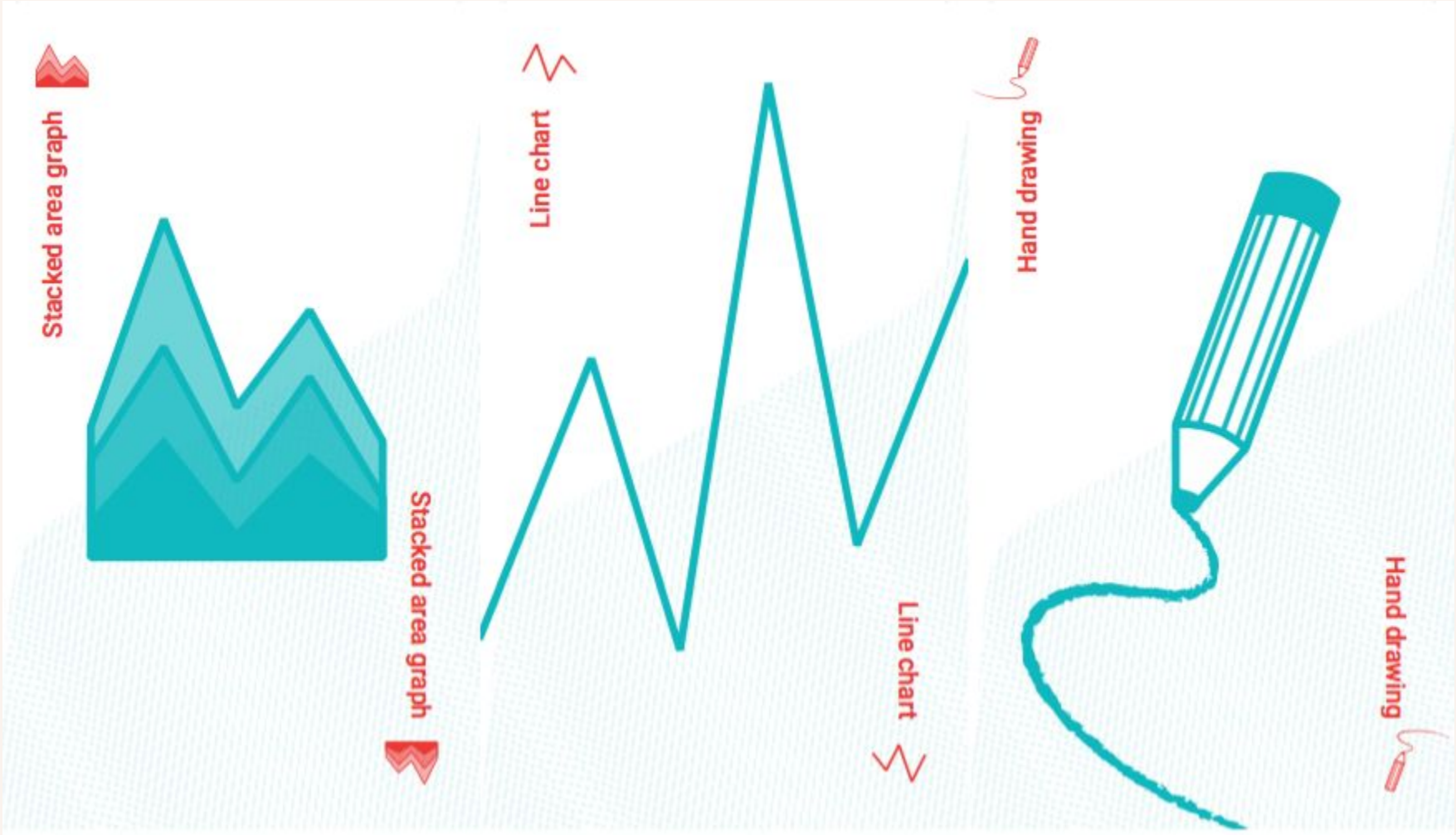
Panorama des formats de visualisation



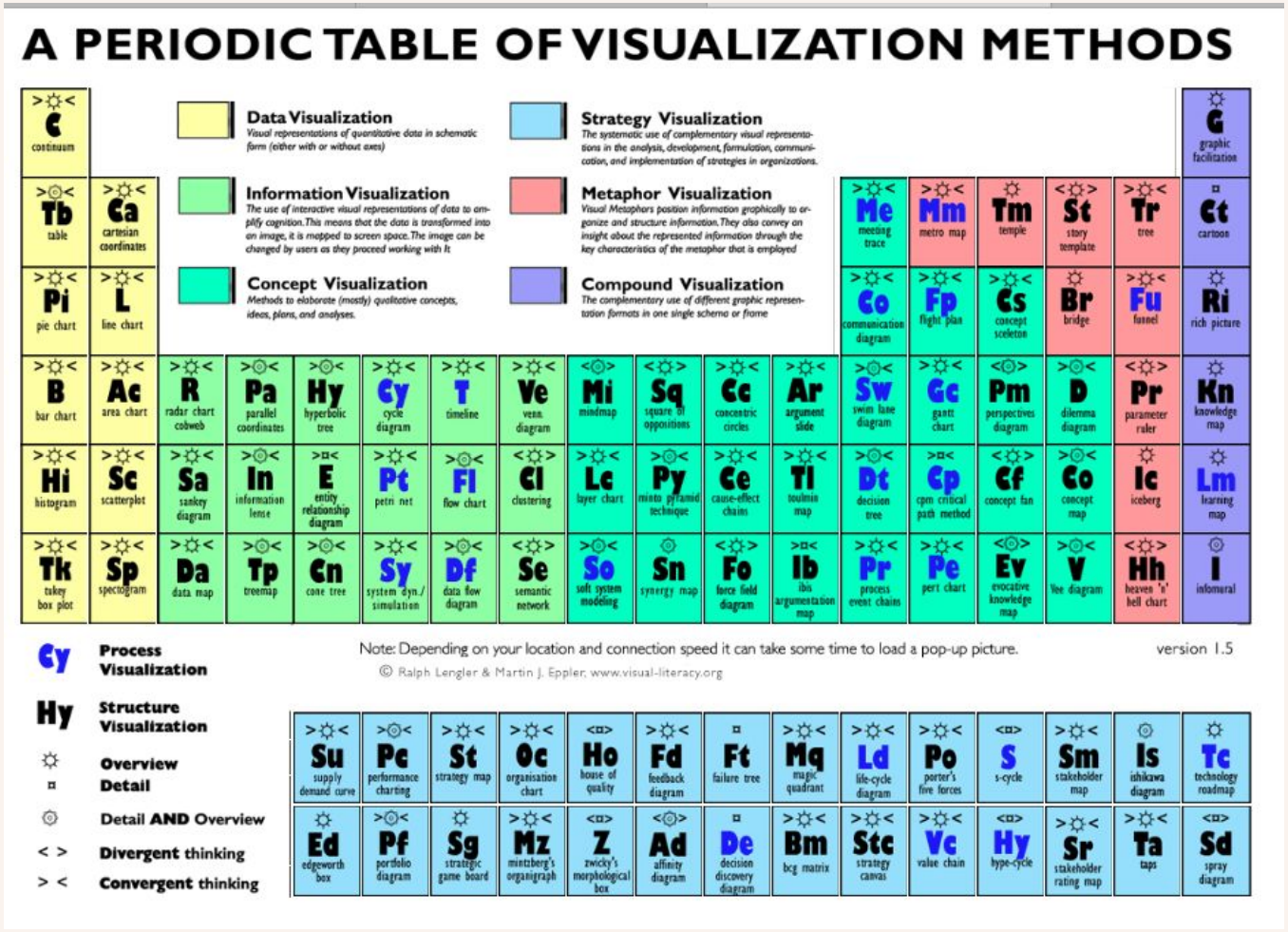
Panorama des formats de visualisation



Panorama des formats de visualisation



La table périodique de la data visualisation



Dataviz blindtest

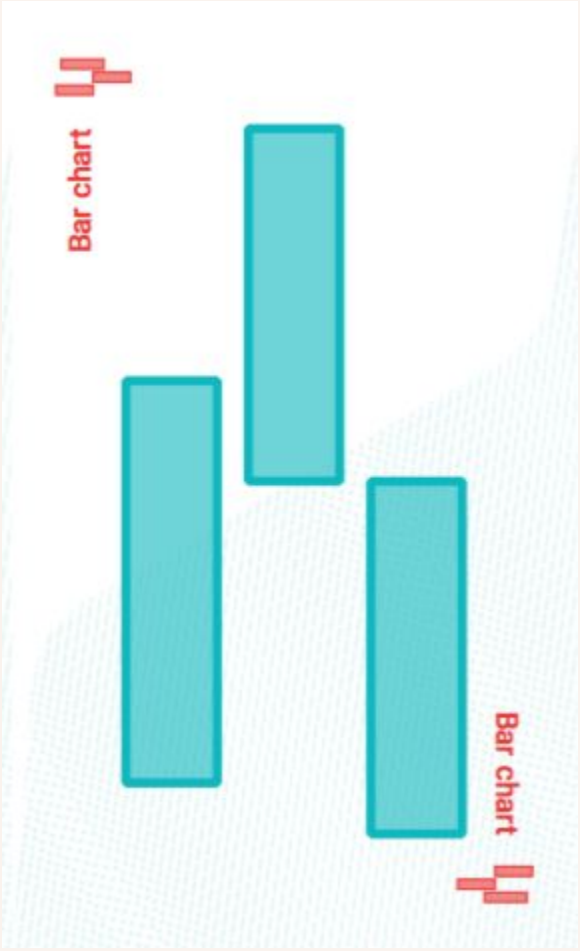
DATACTIVIST

Un petit jeu

- Faites deux groupes de taille égale
- Chaque groupe a un jeu de cartes. Vérifiez qu'ils sont identiques.
- Je vais monter le dos d'une carte (fonctions), vous devez deviner à quelle visualisation ça correspond en regardant seulement la face (visualisation).
- Vous gagnez chaque point à chaque carte bien identifiée. Notez vos points.
- Pas de triche, il n'y a rien à gagner à part ma considération infinie.

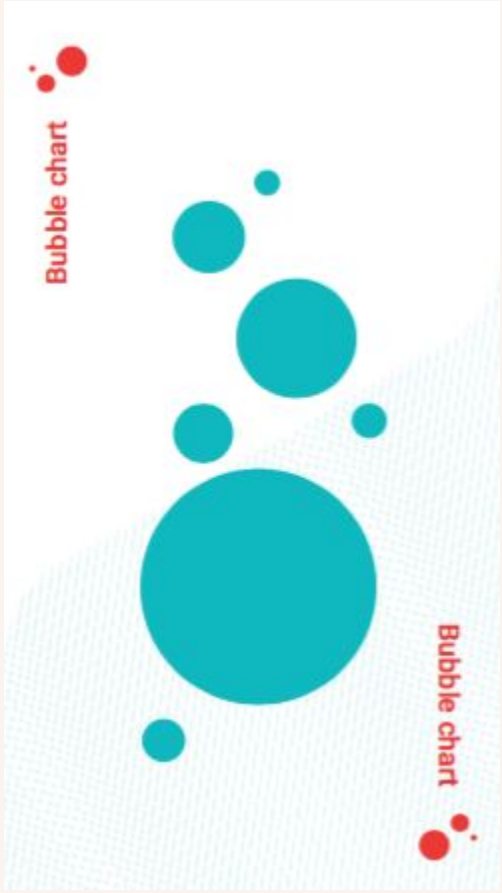
Devinez quelle carte correspond

Solution



Devinez quelle carte correspond

Solution



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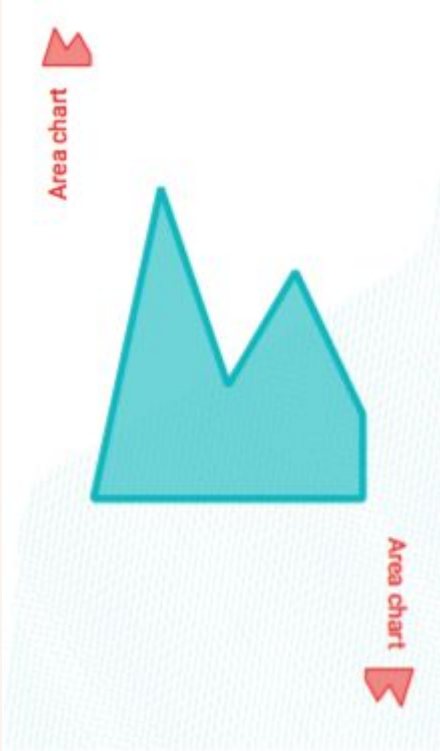

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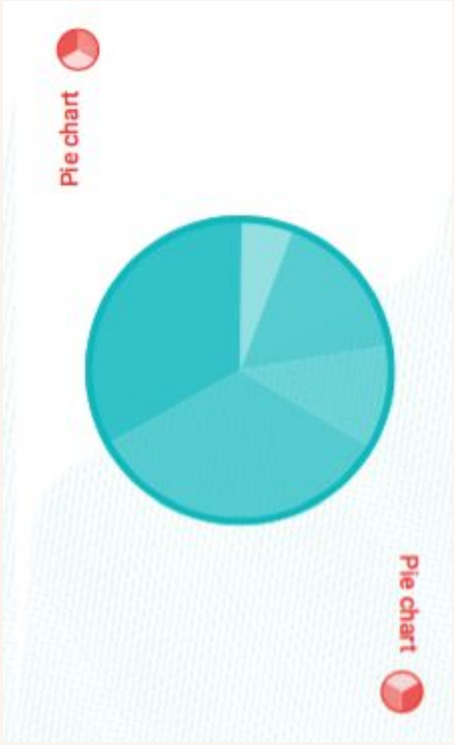
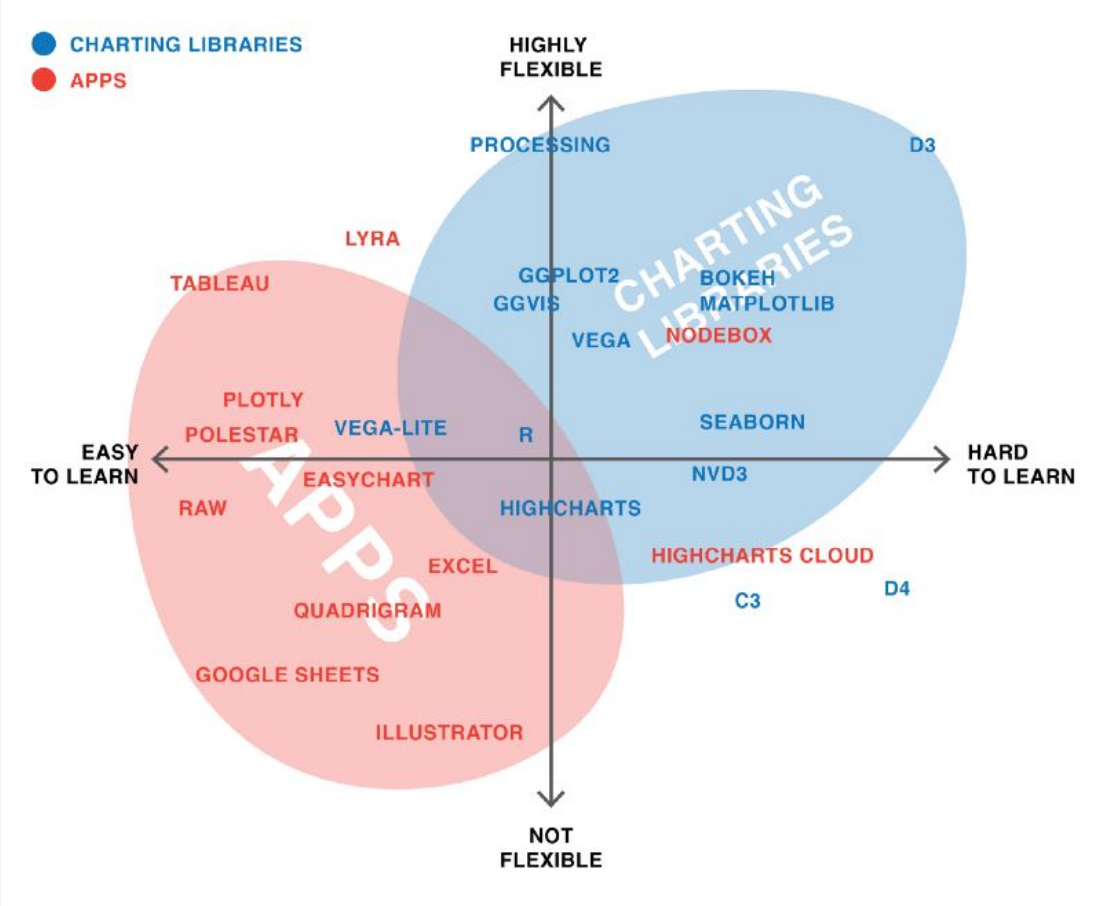


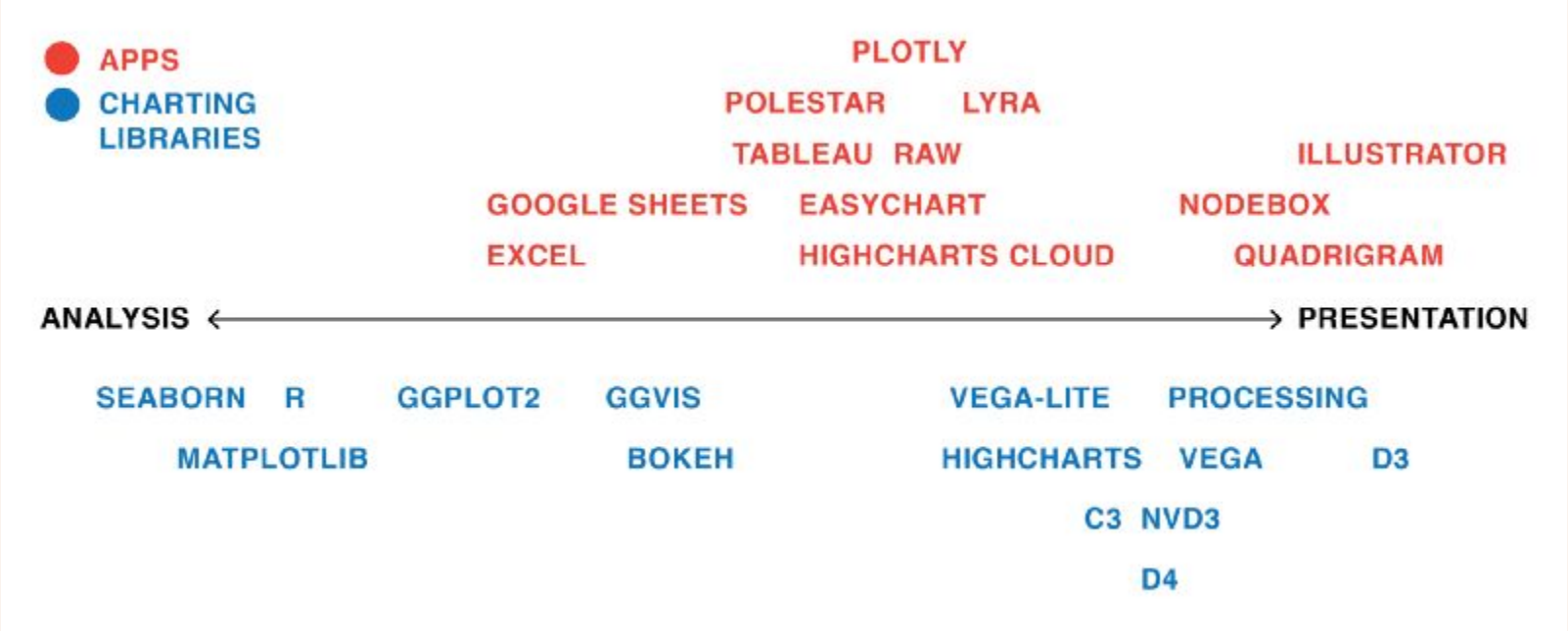
Panorama des outils de visualisation

To code or not to code? That is the question



Source : Open News, “what I learned recreating one chart using 24 tools”

Analyse vs présentation



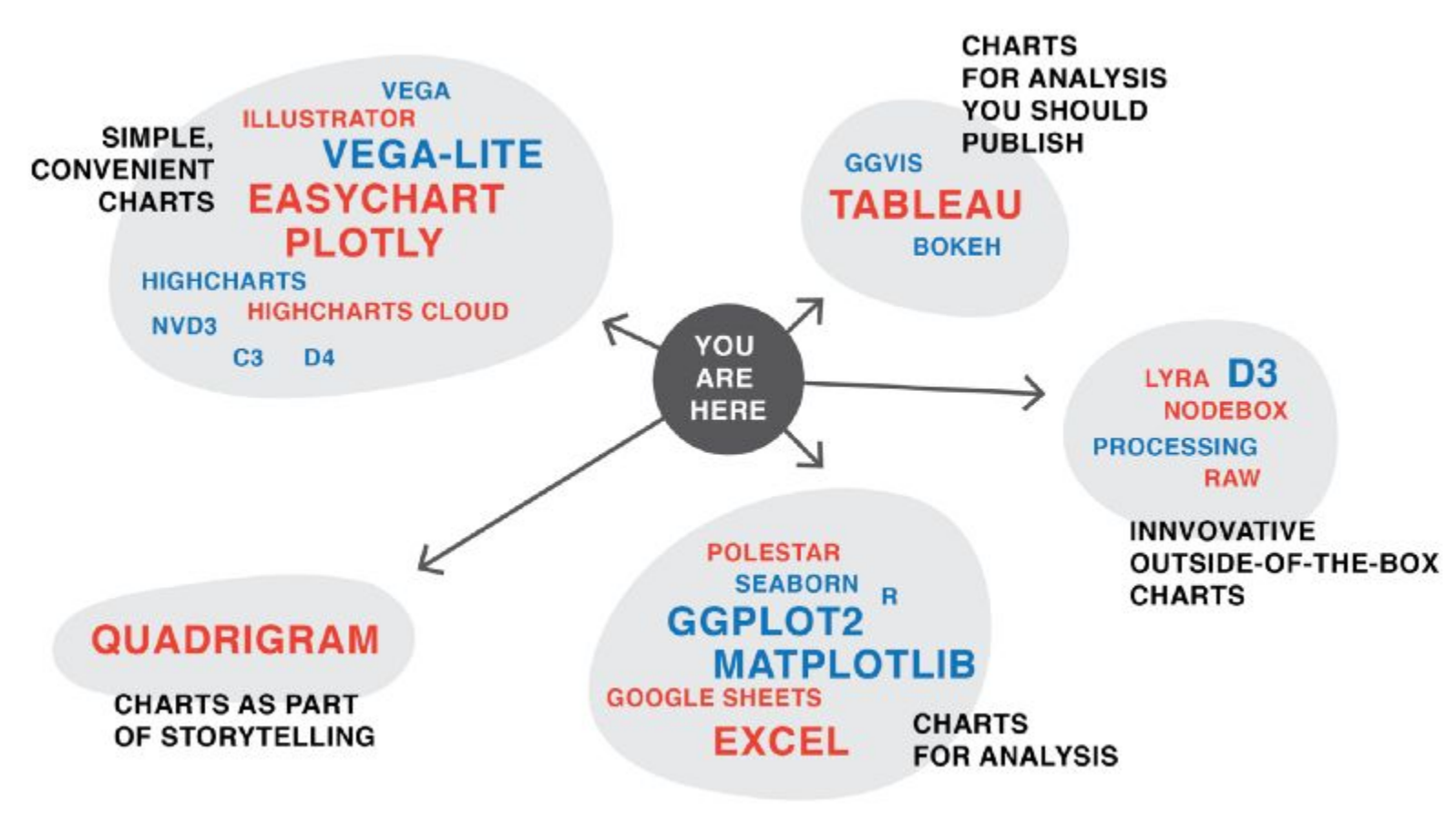
Source : Open News, “what I learned recreating one chart using 24 tools”

Statique ou interactif

	STATIC	WEB - INTERACTIVE
APPS	ILLUSTRATOR, NODEBOX, EXCEL, POLESTAR, RAW	HIGHCHARTS CLOUD, QUADRIGRAM, EASYCHRT, DATAWRAPPER, TABLEAU, PLOTLY, GOOGLE SHEETS
CHARTING LIBRARIES	GGPLOT2, MATPLOTLIB, R, SEABORN, BOKEH, PROCESSING	D3, D4, C3, NVD3, GGVIS, HIGHCHARTS, SHINY, VEGA, VEGA-LITE

Source : Open News, “what I learned recreating one chart using 24 tools”

Tous les outils ne correpondent pas à tous les usages

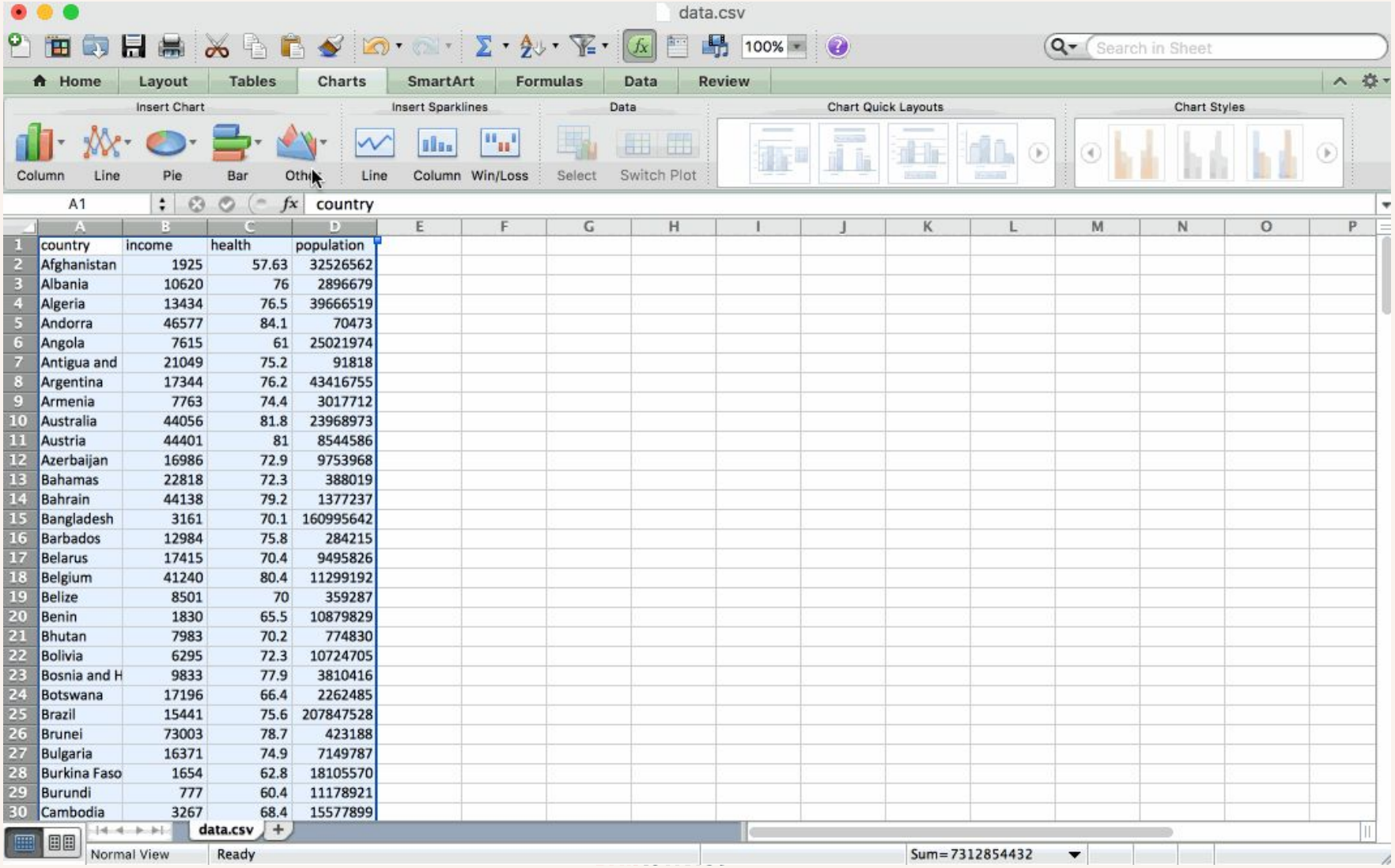


Une visualisation dans plusieurs applications

	A	B	C	D	E	F
1	country	income	health	population		
2	Afghanistan	1925	57.63	32526562		
3	Albania	10620	76	2896679		
4	Algeria	13434	76.5	39666519		
5	Andorra	46577	84.1	70473		
6	Angola	7615	61	25021974		
7	Antigua and Barl	21049	75.2	91818		
8	Argentina	17344	76.2	43416755		
9	Armenia	7763	74.4	3017712		
10	Australia	44056	81.8	23968973		

Lisa Charlotte Ross a utilisé le même jeu de données pour recréer une visualisation en nuage de points dans une dizaine d'applications.

Excel



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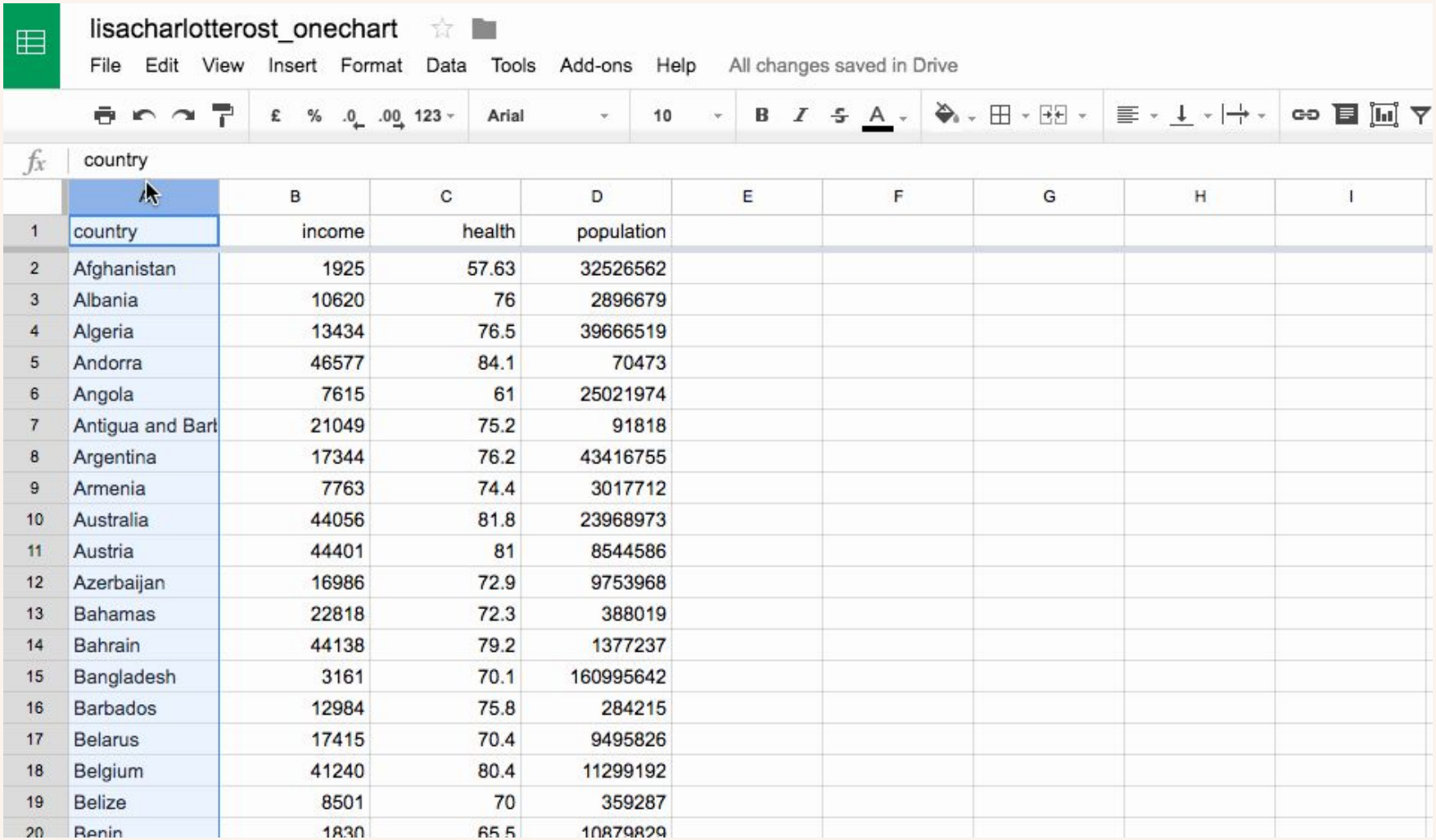
10	Australia	44056	81.8	23968973
11	Austria	44401	81	8544586
12	Azerbaijan	16986	72.9	9753968
13	Bahamas	22818	72.3	388019
14	Bahrain	44138	79.2	1377237
15	Bangladesh	3161	70.1	160995642
16	Barbados	12984	75.8	284215
17	Belarus	17415	70.4	9495826
18	Belgium	41240	80.4	11299192
19	Belize	8501	70	359287
20	Benin	1830	65.5	10879829
21	Bhutan	7983	70.2	774830
22	Bolivia	6295	72.3	10724705
23	Bosnia and H	9833	77.9	3810416
24	Botswana	17196	66.4	2262485
25	Brazil	15441	75.6	207847528
26	Brunei	73003	78.7	423188
27	Bulgaria	16371	74.9	7149787
28	Burkina Faso	1654	62.8	18105570
29	Burundi	777	60.4	11178921
30	Cambodia	3267	68.4	15577899

Google Spreadsheet



	A	B	C	D	E	F	G	H	I
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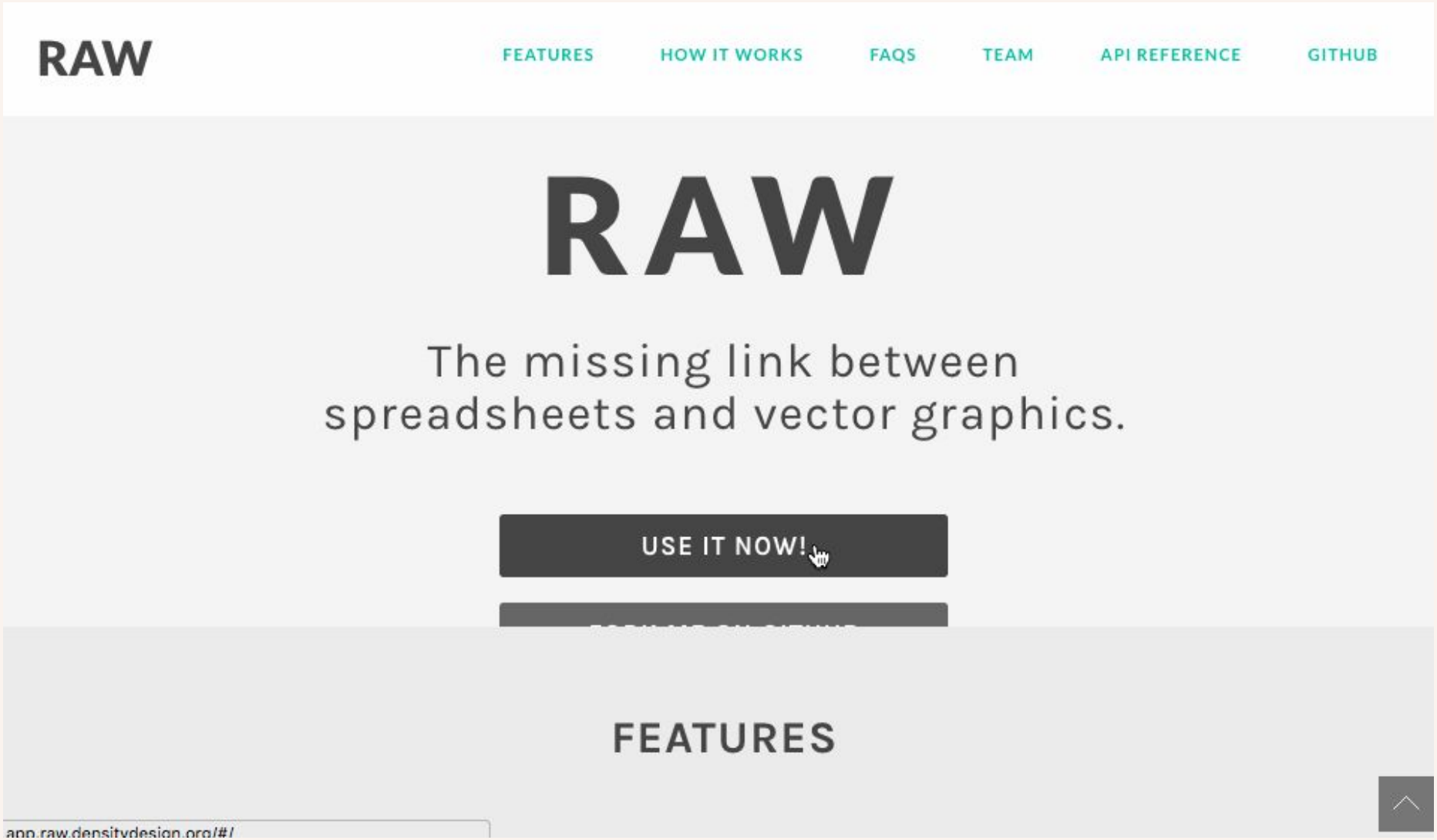
Raw


RAW
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The missing link between
spreadsheets and vector graphics.
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app.raw.densitydesign.org/#/

Lyra

PEOPLE
PAPERS
VIDEO
CODE

ABSTRACT

Lyra is an interactive environment that enables custom visualization design without writing any code. Graphical "marks" can be bound to data fields using property drop zones; dynamically positioned using connectors; and directly moved, rotated, and resized using handles. Lyra also provides a data pipeline interface for iterative visual specification of data transformations and layout algorithms. Lyra is more expressive than interactive systems like Tableau, allowing designers to create custom visualizations comparable to hand-coded visualizations built with D3 or Processing. These visualizations can then be easily published and reused on the Web.

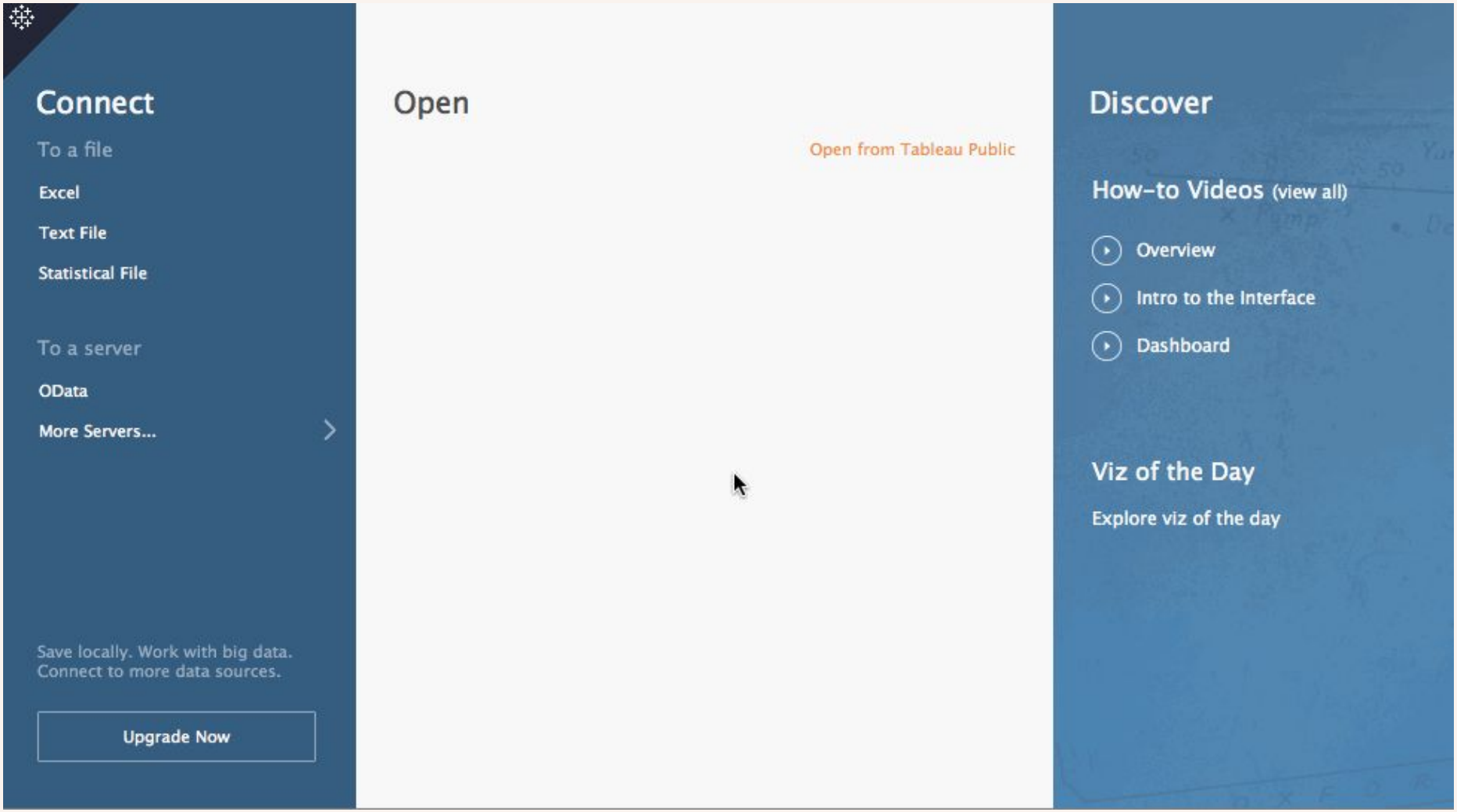
Try It Now »

Lyra is available as free and open source software. **Try it out** or **fork it on GitHub.**
Note: Lyra is currently **beta** software, so beware of bugs! If you experience a bug, please file a **bug report.**

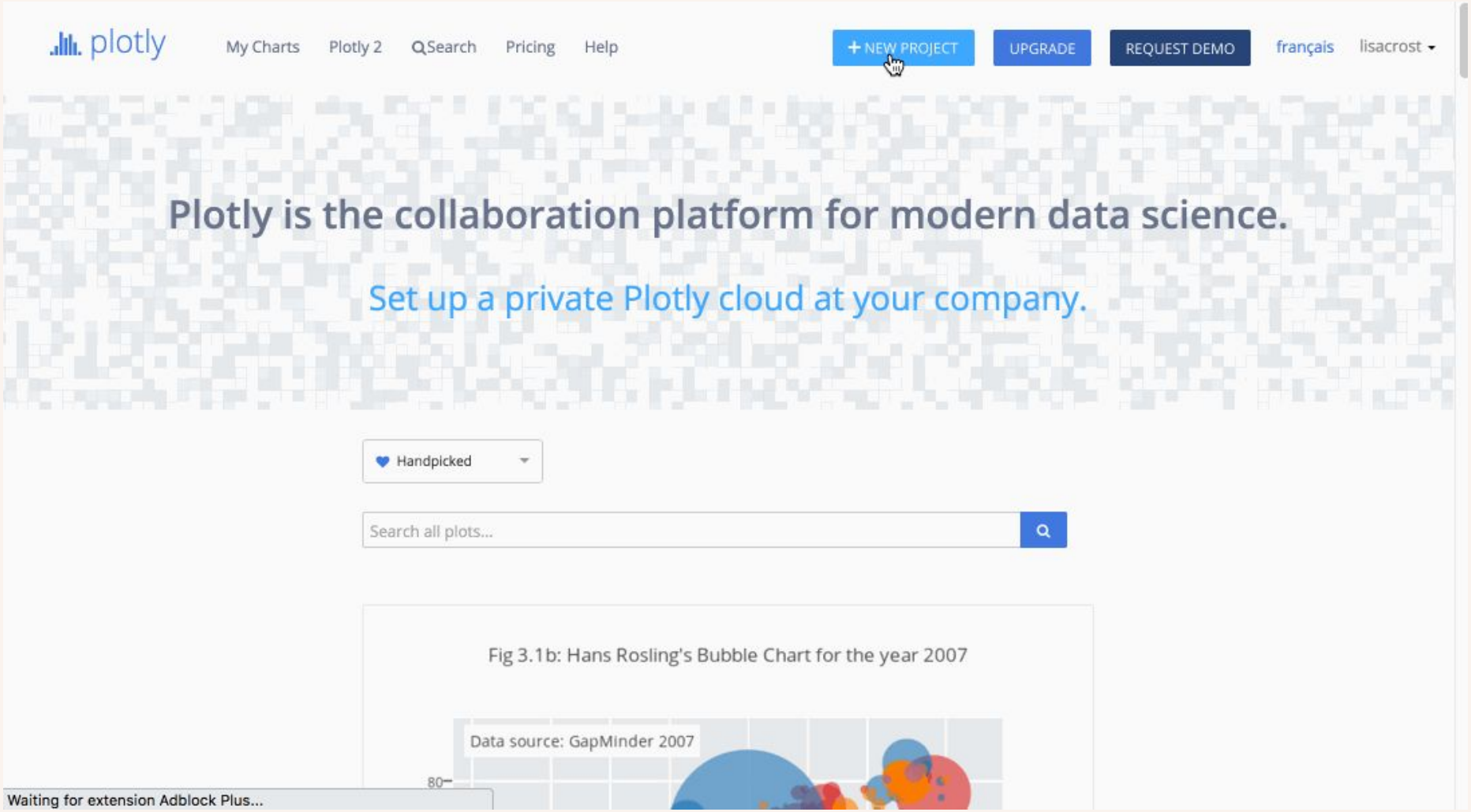
DOCUMENTATION AND TUTORIALS

Visit the **wiki** for documentation and tutorials that walk through the process of building visualizations in Lyra.

Tableau


Connect
To a file
Excel
Text File
Statistical File
To a server
OData
More Servers...
Save locally. Work with big data.
Connect to more data sources.
Upgrade Now
Open
Open from Tableau Public
Discover
How-to Videos (view all)
Overview
Intro to the Interface
Dashboard
Viz of the Day
Explore viz of the day

Plotly


plotly
My Charts
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+ NEW PROJECT
UPGRADE
REQUEST DEMO
français
lisacrost
Plotly is the collaboration platform for modern data science.
Set up a private Plotly cloud at your company.
Handpicked
Search all plots...
Fig 3.1b: Hans Rosling's Bubble Chart for the year 2007
Data source: GapMinder 2007
80
Waiting for extension Adblock Plus...

Démonstration de Datawrapper

Démonstration de Raw