

# Web Mapping & Analysis

## Dashboards

Dani Arribas-Bel

# Today

- What?
- Why?
- How?

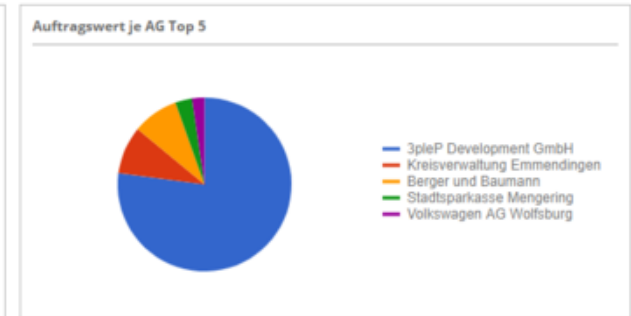
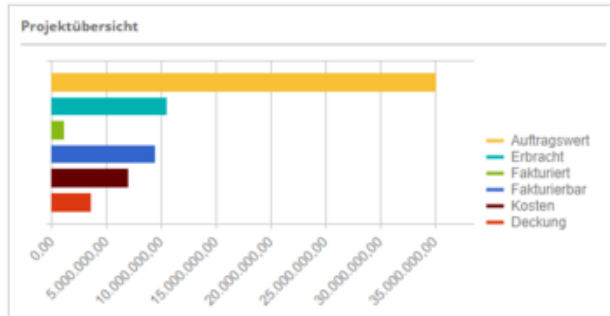
Dashboards: *what?*



<b>6</b> Meine offenen Aufgaben	<b>25.10%</b> Leistungsstand	<b>41</b> Neue Dokumente	<b>0</b> Neue Urlaubsanträge	<b>3</b> Rechnungseingänge	<b>10</b> Neue E-Mails	<b>0</b> Offene Mängel
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**Projekte**

- 08-10999: Gutachten Statik
- a A-A235: BAB
- A-2016\_005: Essen - Ing.Bau
- A-A234:
- A-GP2:



url

**Rechnungen/Anzahlungen**

Projekt	Projektbez.	Auftrag	Auftragsbeze...	Kostenstelle.	Adresse	Typ	Belegnu
BA18_033	Sanierung Klä...	BA18_033	Sanierung Klä...	11	3pleP GmbH	R	S190004
BA18_024	Kronau P-NW...	B-18_0024	Kronau	BE-112	3pleP GmbH	R	S190002
BA15_031	Für Fakturier...	B-15_031	Für Fakturier...	BE-112	3pleP GmbH	A	A180015
BA15-006	Ingenieurrol...	B-15-006	Ingenieurrol...	11	3oleP GmbH	A	A180012

Einträge 1 - 50 von 86

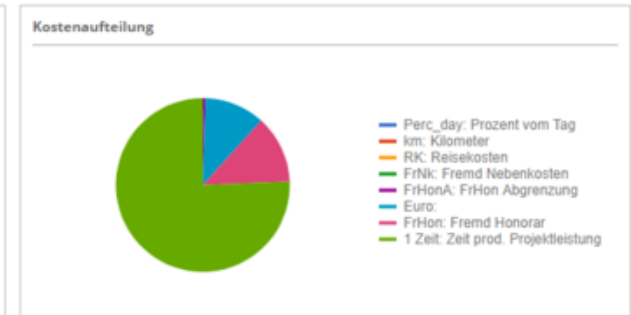
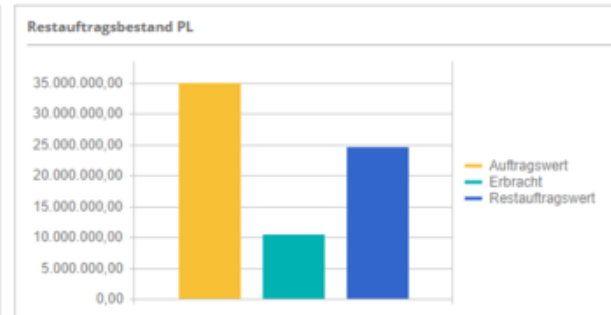
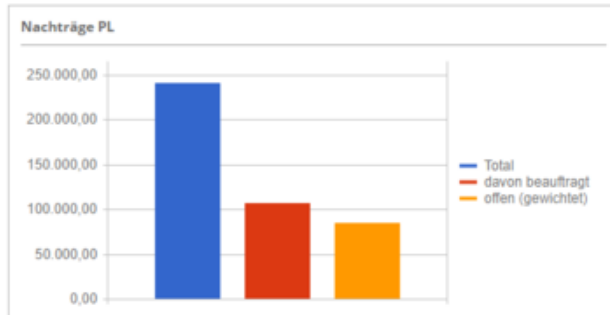
**Zeitbuchungen**

Projekt	Projektbez.	Projekteleme...	Projekteleme...	Datum	Kürzel	Name	Vorname
BA08-101	KH Emmendi...	9	Objektbetreu...	31.01.2020	BDE_WEB	Schwender	Stefan
BA08-101	KH Emmendi...	9	Objektbetreu...	30.01.2020	BDE_WEB	Schwender	Stefan
BA08-101	KH Emmendi...	9	Objektbetreu...	29.01.2020	BDE_WEB	Schwender	Stefan
BA08-101	KH Emmendi...	9	Objektbetreu...	28.01.2020	BDE WEB	Schwender	Stefan

Einträge 1 - 50 von 4730

**Kostenstellenbereiche**

- b1: bereich 1



World Map

NEW

U.S. Map

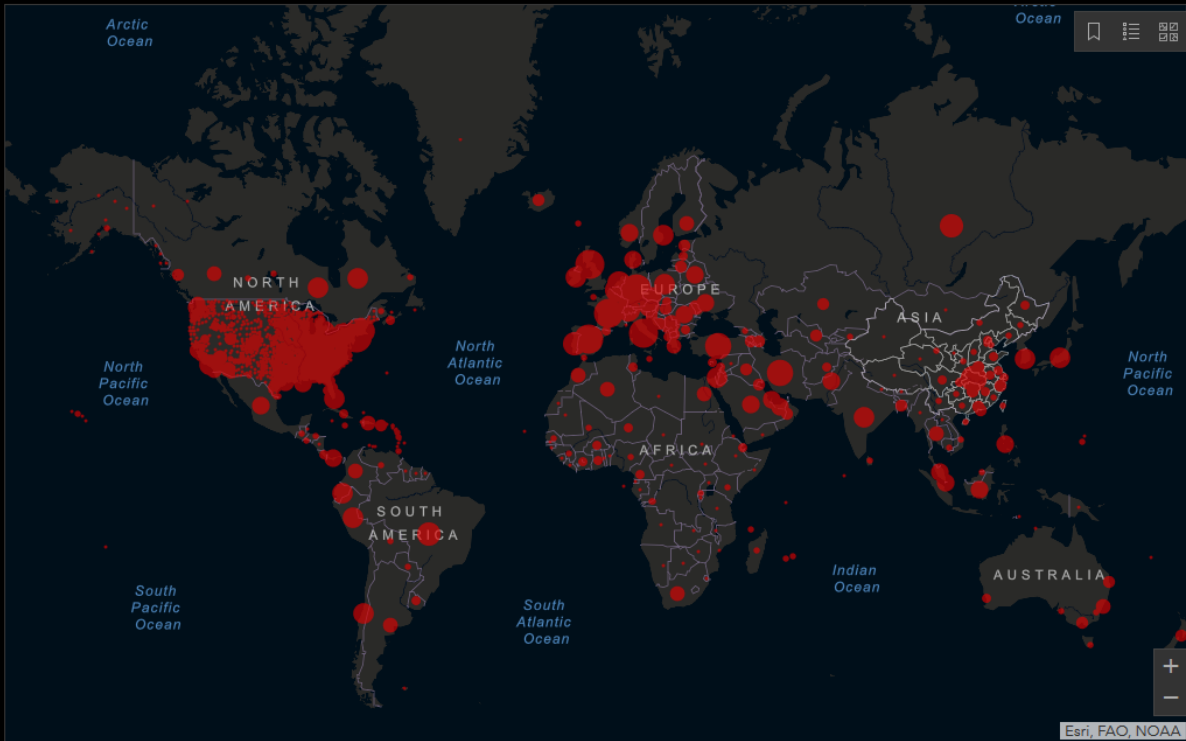
Critical Trends

COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)

Total Confirmed  
**2,165,500**

Confirmed Cases by Country/Region /Sovereignty

671,425	US
184,948	Spain
168,941	Italy
147,091	France
138,135	Germany
104,148	United Kingdom
83,756	China
77,995	Iran
74,193	Turkey
34,809	Belgium
32,008	Russia
30,973	Canada
30,891	Brazil
29,383	Netherlands
26,732	Switzerland
18,841	Portugal

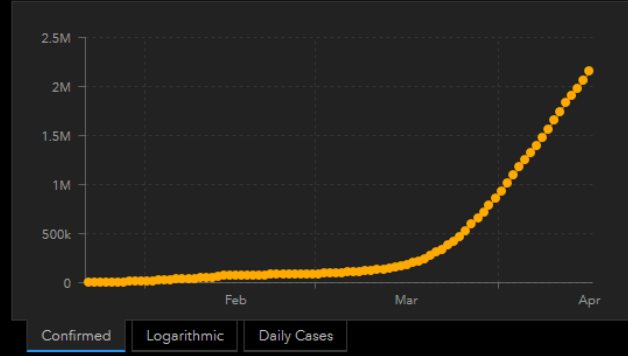


Total Deaths  
**145,705**

22,170 deaths	Italy
19,315 deaths	Spain
17,920 deaths	France
13,729 deaths	United Kingdom
11,477 deaths	New York City <b>New York US</b>
4,869 deaths	Iran
4,857 deaths	Belgium

Total Tested in the US  
**3,420,394**

550,579 tested	New York US
246,400 tested	California US
224,141 tested	Florida US
158,547 tested	Texas US
151,830 tested	New Jersey US
141,470 tested	Pennsylvania US
140,773 tested	Massachusetts US
128,900 tested	US Tested



Last Updated at (M/D/YYYY)  
**4/17/2020, 9:38:17 AM**

**185**  
countries/regions

Lancet Inf Dis Article: [Here](#). Mobile Version: [Here](#).  
Lead by JHU CSSE. Automation Support: [Esri Living Atlas team](#) and [JHU APL](#). Contact [US](#). [FAQ](#).  
Data sources: [WHO](#), [CDC](#), [ECDC](#), [NHC](#), [DXY](#), [1point3acres](#), [Worldometers.info](#), [BNO](#), the [COVID Tracking Project](#) (testing and hospitalizations), state and national government health departments, and local media reports. [Read more in this blog](#).

# (Digital) Dashboards

*[...] single-screen display of the most important information people need to do a job, presented in a way that allows them to monitor what's going on in an instant*

Few (2006)

# (Digital) Dashboards

- “Centralisers” of data
- Not only about maps
- Up-to-date (dynamic/real time)



Dashboards: *why (not)?*

# Why?

- *Mo'data, mo'problems*: need to access streams effectively
- Dynamic data requires dynamic mediums
- Decision-driven views: focus on “key indicators”

# Useful features

- “*Useful model*” distilling the essential in one place
- Powerful, yet accessible (client/server model)
- Enable “designed” analysis

# Why not?

## Critical considerations

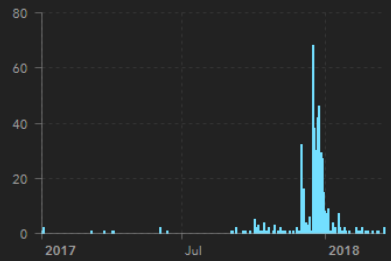
- **Mechanistic** view of complex/human systems
- **Reductionist**: Focus only on what can (and is) be measured
- **Bias**: What is measured? What is left out?

# Map-based dashboards

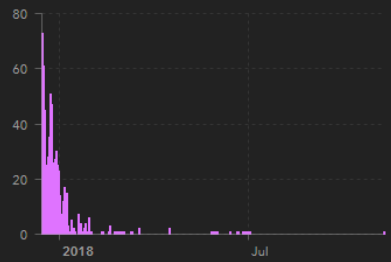
- At least one view is a map, but may combine with other views
- Organise information presented through space/geography
- Limited but focused analysis through interactivity (“GIS on a browser”)

Actividades | Ayuntamiento de Madrid

Recorrido de altas por fecha de inicio



Previsión de finalización de actividades

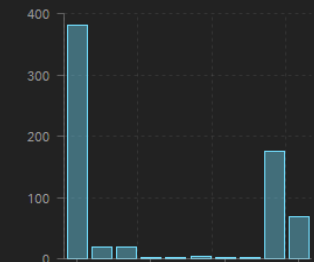


Actividades y Eventos

672

Last update: a few seconds ago

Público Dirigido



Actividades y Eventos Ayuntamiento de Madrid

- 10 y 11. Ximena y Sergio
- 5 ESTRELLAS
- Aba Taano de Uganda
- Abuelikas
- Actividades extraescolares en el distrito de Usera
- Actividades infantiles
- Actividades infantiles Plaza de Chamberí
- Actividades infantiles Plaza de Chamberí
- Actividades infantiles Plaza de Olavide
- Actuación de payasos
- Actuación del coro del CMM Leñeros
- Acuareladas
- Adornos de Navidad
- Agrupación Combo moderno de la Escuela Municipal de Música Antonio Machado
- Ajedrez
- Al otro lado de los sueños
- Alfredo Tejada

Gráfico Donut Actividades por Precio

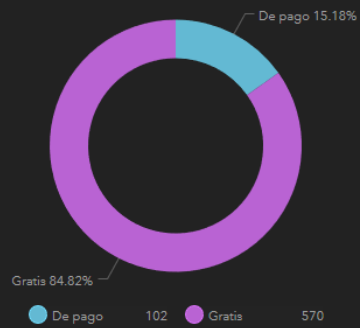
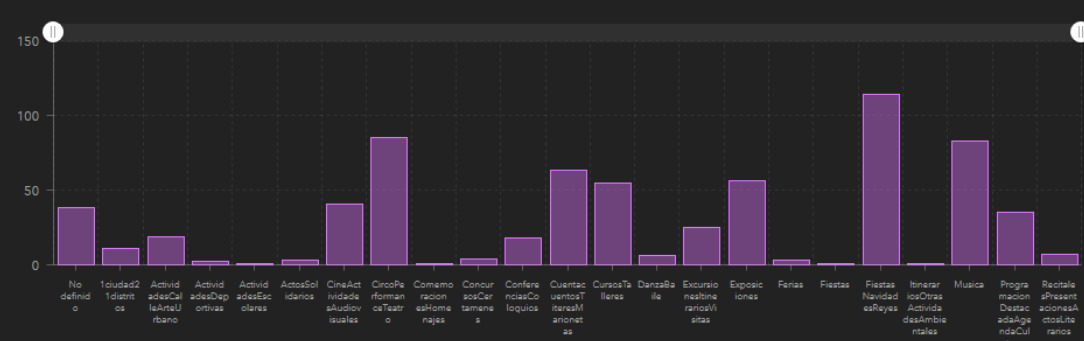


Gráfico de Barras por tipo de Actividad



Dashboards: *how?*

# How to design a dashboard

- Purpose first, technology next
- ~~One rule fits all~~
- Learning by (others') mistakes



# Thirteen mistakes in Dashboard Design (Few, 2006)

# Thirteen mistakes... (1-3)

1. Exceeding a single screen
2. Supplying inadequate context for the data
3. Excessive detail/precision

# Thirteen mistakes... (4-6)

4. Choosing a deficient measure
5. Inappropriate display media
6. Meaningless variety

# Thirteen mistakes... (7-9)

7. Poorly designed display media
8. Inaccurate encoding of quantitative data
9. Poor arrangement

# Thirteen mistakes... (10-13)

10. Highlighting important data ineffectively
11. Display cluttering/decoration
12. Color mis/overuse
13. Unattractive visual displays

# Enabling analysis

- Not only display of information
- Interactivity fits more into one screen
- “Purpose-built GIS”



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