



Design Thinking + Data Visualisation + Cutting Edge Technology + Global Perspective on Business and Culture



# ONTRACKPH

## Thinking Machines

UX

Data Visualization

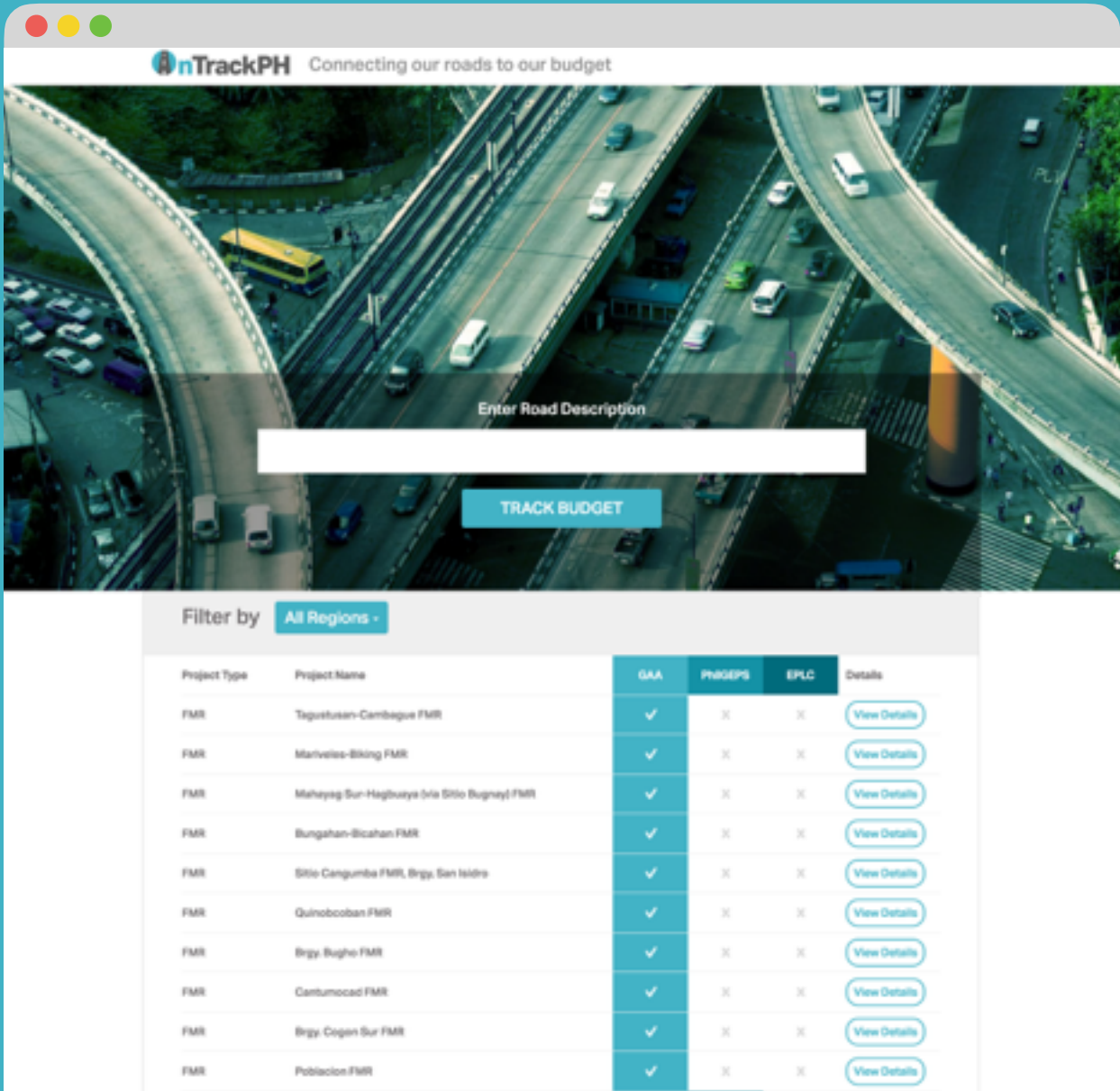
Web

A project with the World Bank for helping the Philippine government track down the budget for roads

Project Duration:  
6 months / Ongoing

Project Scope:  
Data Visualization  
UX Testing/Interviews  
Front End Web Design  
and Development

A web interface was initially developed for internal use to demonstrate the complex matching algorithm designed to connect the multiple budget and procurement databases of the government. It is now being repurposed to view all the road projects to track their progress, and tested with users from the Department of Budget Management



Several animations were created in order to explain the normalization and TF-IDF algorithms to World Bank and government officials.

<https://thinkingmachin.es/case-studies/ontrackph/>  
<https://stories.thinkingmachin.es/ontrackph/>

# PHILIPPINE ELECTION CARTOGRAM

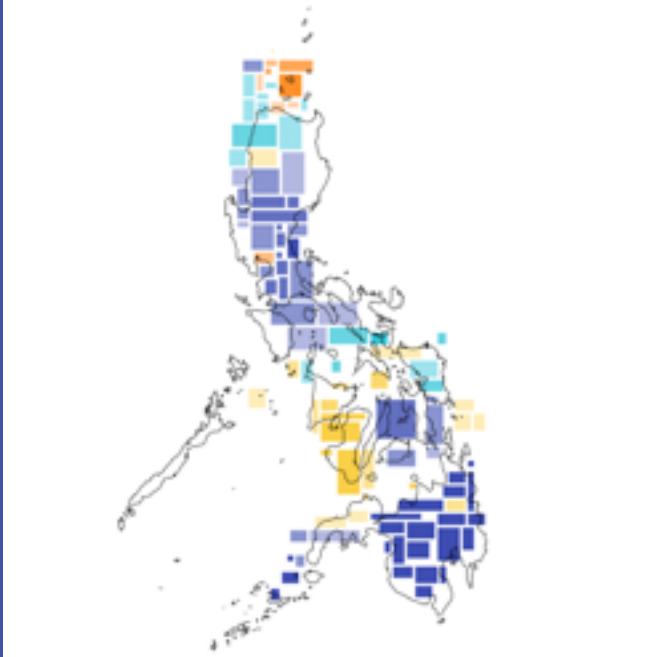
Thinking Machines

Data Visualization D3

A self-initiated data story for the company blog: [stories.thinkingmachin.es/election2016](https://stories.thinkingmachin.es/election2016)

Project Duration:  
1.5 weeks

Project Scope:  
Data Analysis and Design  
D3 coding  
Written Article



Actual Philippine map outline overlaid with the cartogram

Maps are a very common visualization tool but don't kid yourselves, there's more than one way to draw a map.

During the recent elections, all Philippine media outlets used standard geographic maps to show the results of the 2016 presidential and vice presidential races.

In the Philippines, 10% of the population lives in Metro Manila, a tiny segment of the map. I used a Demers cartogram to fix the representation. In the interactive graphic, I include three different ways to view the data: geographic layout, sorted by size from largest to smallest, sorted by candidate.

# PHILIPPINE LANGUAGES

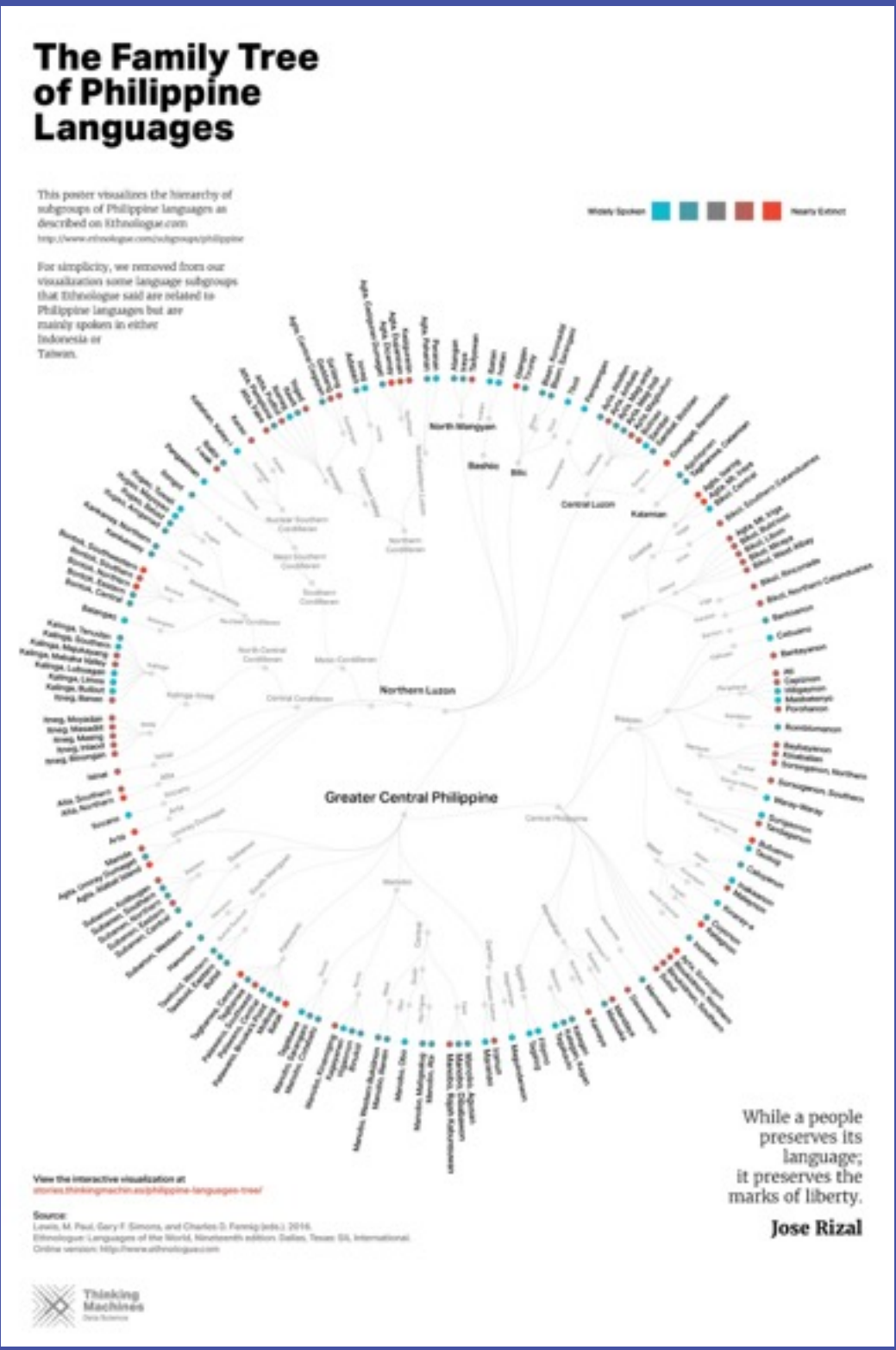
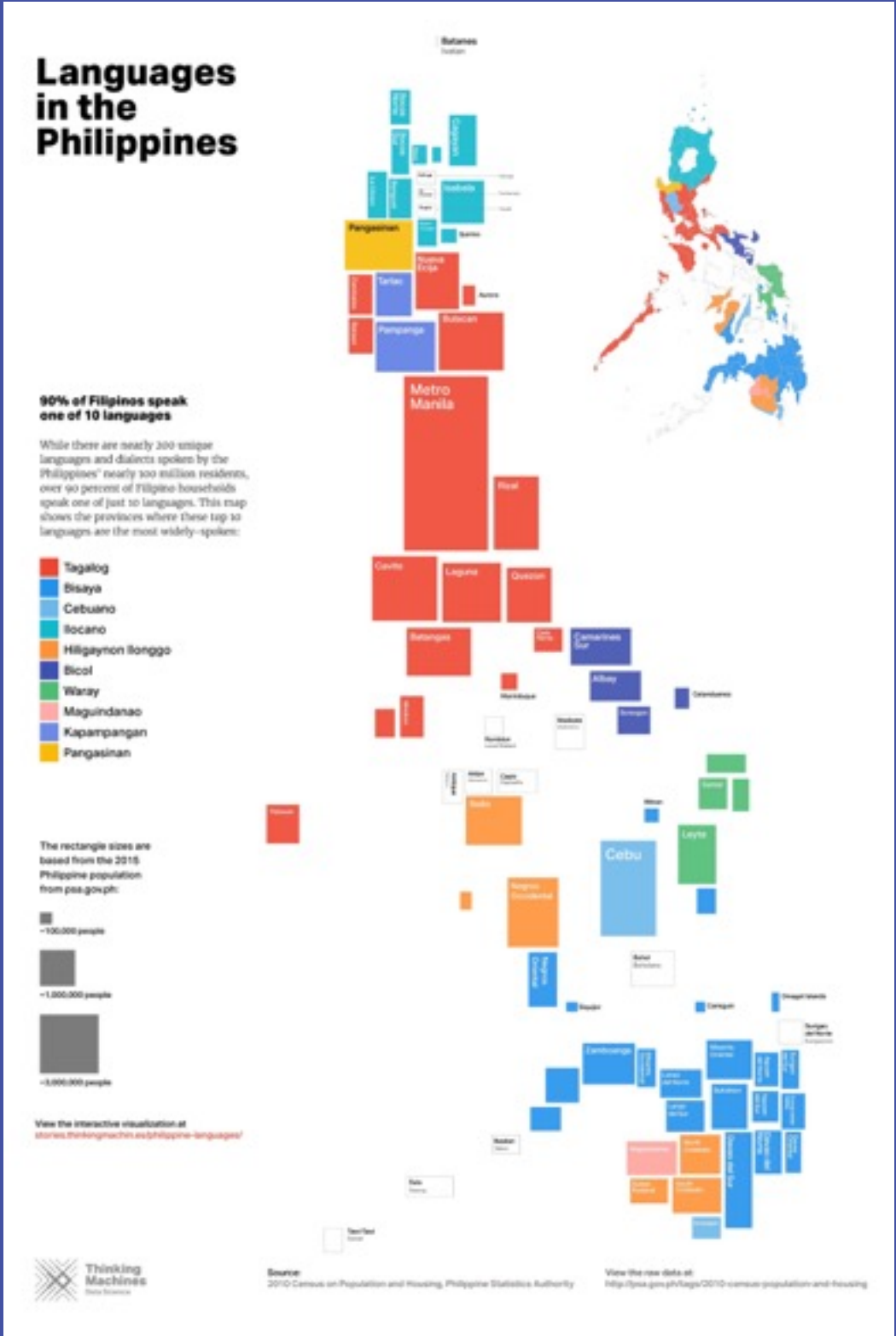
Thinking Machines

Data Visualization D3

A self-initiated data story for the company blog: [stories.thinkingmachin.es/philippine-languages](http://stories.thinkingmachin.es/philippine-languages)

Project Duration: 1.5 weeks

Project Scope: Data Analysis and Design D3 coding



While a people preserves its language; it preserves the marks of liberty.  
Jose Rizal



# 2016

# PHILIPPINE DISASTERS

# Thinking Machines

## Data Visualization

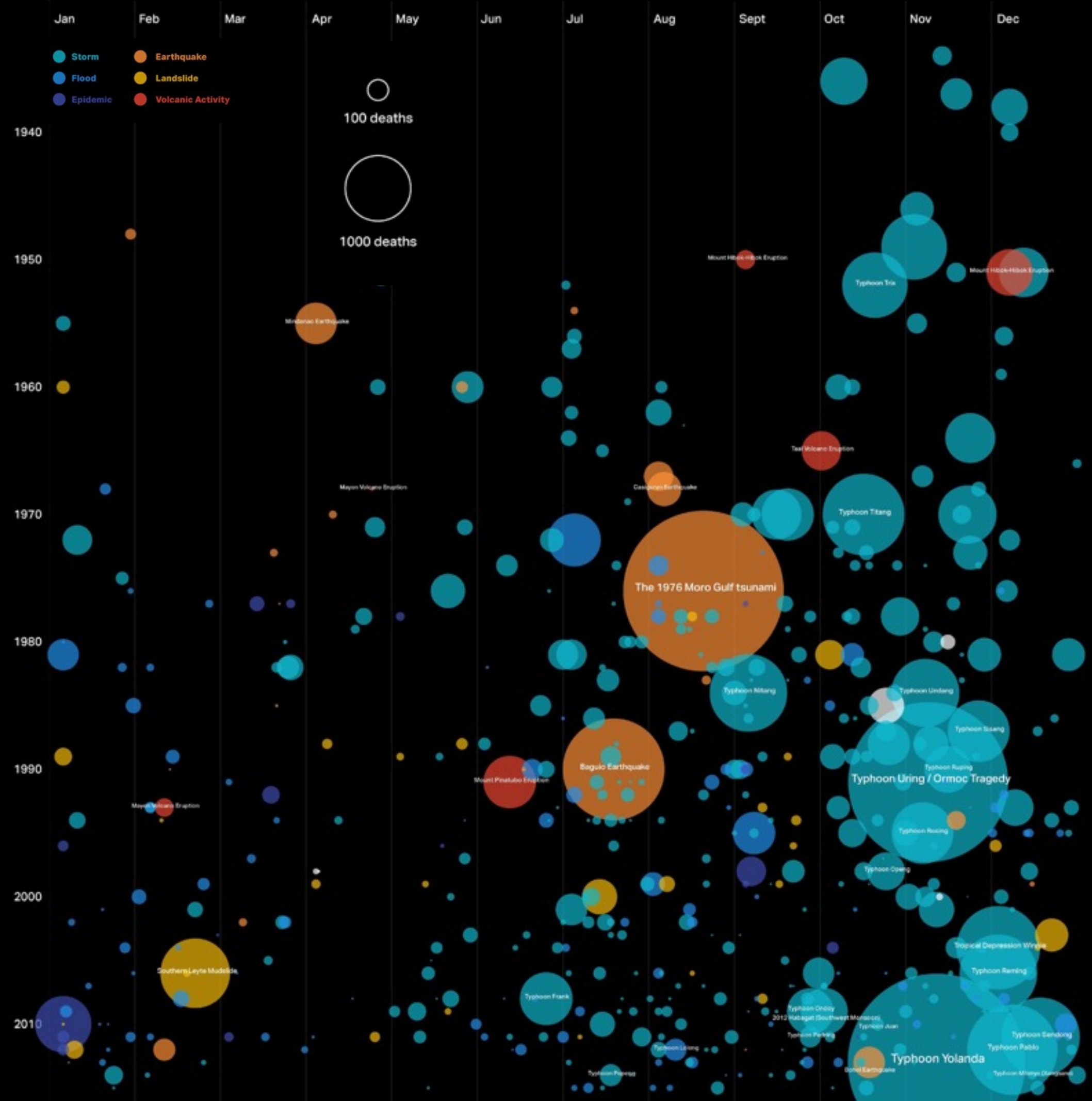
D3

A self-initiated data story  
for the company blog:  
[stories.thinkingmachines.com/  
philippine-disasters](https://stories.thinkingmachines.com/philippine-disasters)

Project Duration:  
1 week

## Project Scope:

- Data Analysis and Design
- D3 coding



2016

# VISUALIZING A PANEL DISCUSSION

# Thinking Machines

## Data Visualization

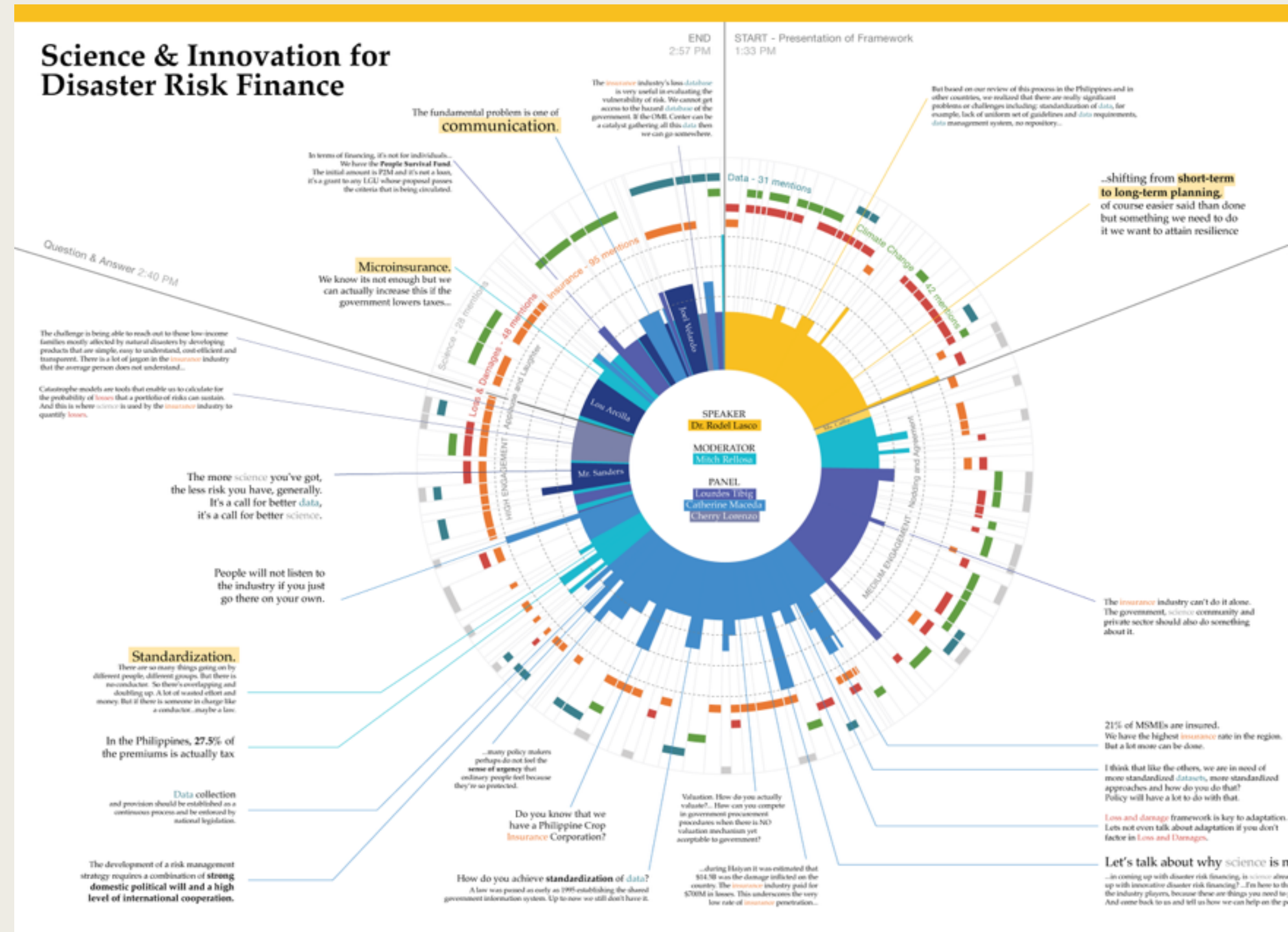
D3

A project for the Oscar M. Lopez Foundation to make a data visualisation of a panel discussion on disaster risk finance

*Project Duration:*  
1 week

## Project Scope:

- Data Visualization
- D3 coding



**Sent to attendees of ARISE conference**

# MAPPING ROAD ACCIDENTS

Thinking Machines

Data Visualization

D3

A project for the Thinking Machines blog inspired by our entry for a Road Safety Hackathon where we won 3rd place

Project Duration:  
2 weeks

Project Scope:  
Data Visualization  
D3 coding





# TOXIC TAPS

Thinking Machines

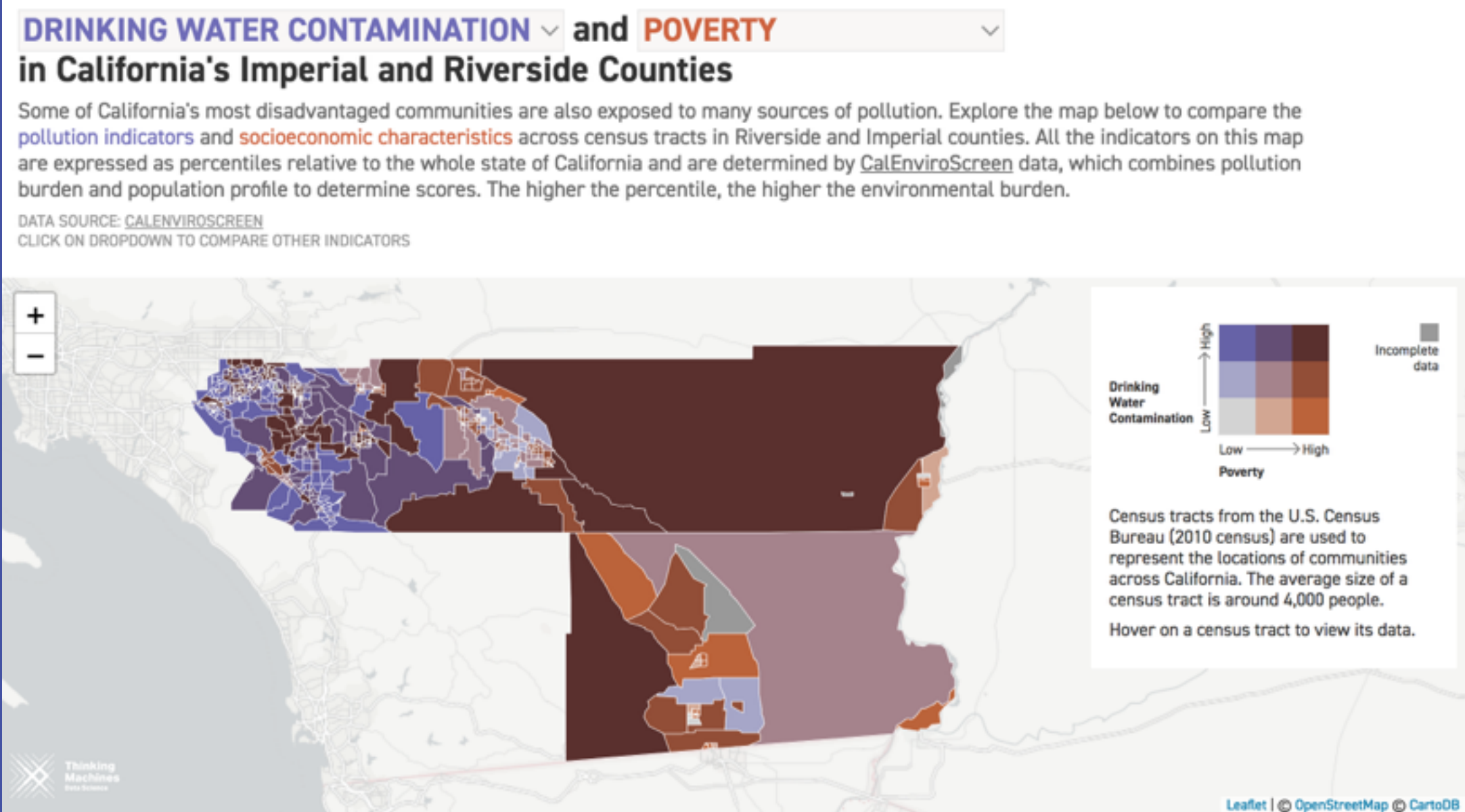
Data Visualization

D3

Art direction for an interactive map in NewsDeeply’s series about California’s water

Project Duration:  
2 weeks

Project Scope:  
Data Visualization  
D3 coding



I utilised a bivariate choropleth type map to show two variables at the same time and lessen clicks

<http://toxictaps.newsdeeply.com/>



# DATA VISUALIZATION LECTURES

Ateneo de Manila University

Data Visualization

D3

Slides developed for teaching part time at my alma mater with the astrophysicist turned data scientist, Dr. Reina Reyes

[Download all slides](#)



10 PRINCIPLES OF  
GOOD DESIGN  
DIETER RAMS

6

## GOOD DESIGN IS HONEST

It does not make a product more innovative, powerful or valuable than it really is. It does not attempt to manipulate the consumer with promises that cannot be kept.



[View it Online](#)

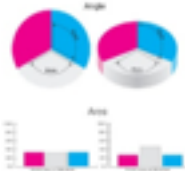


LESSONS FROM  
EDWARD TUFTTE

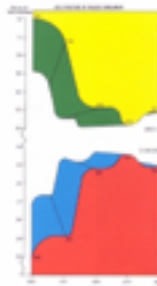
## 1 GRAPHICAL INTEGRITY

### 5TH PRINCIPLE

The number of information carrying (variable) dimensions depicted should not exceed the number of dimensions in the data. Graphics must not quote data out of context.



## 3 CHART JUNK



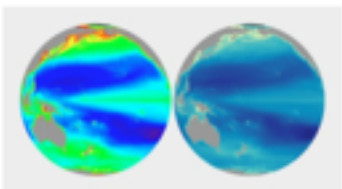
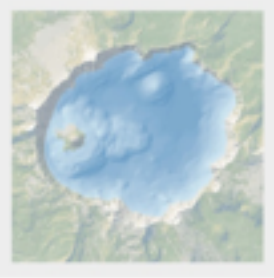
This is according to Tufte possibly the worst graph ever :  
"A series of weird three-dimensional displays appearing in the magazine of American Education in the 1970's delighted the connoisseurs of the graphically preposterous. Here five colors report, almost by happenstance, only 5 pieces of data (since the division within each adds to 100%). This may well be the worst graphic ever to find its way into print."

[View it Online](#)



COLOR FOR  
DATA VISUALIZATION

Use colors found in nature, especially those on the lighter side.



[View it Online](#)

# INTERNATIONAL TALKS

2016  
UX SINGAPORE



Showcasing the truth is the highest goal of data storytelling. Because the design of a chart can affect the interpretation of data in a major way, one must wield visual tools with care and deliberation. Using quantitative facts to evoke an emotional response is best achieved with the combination of UX and data storytelling.

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2017  
WORLD DESIGN SUMMIT MONTREAL



How can we fully integrate user experience design, data visualization and data science to get the most actionable insights out of data to empower the social sector and drive change bottom up and top down?

[View Online](#)



Mange tak!