
CentraleDigitalLab@LaPlateforme_

Data Storytelling



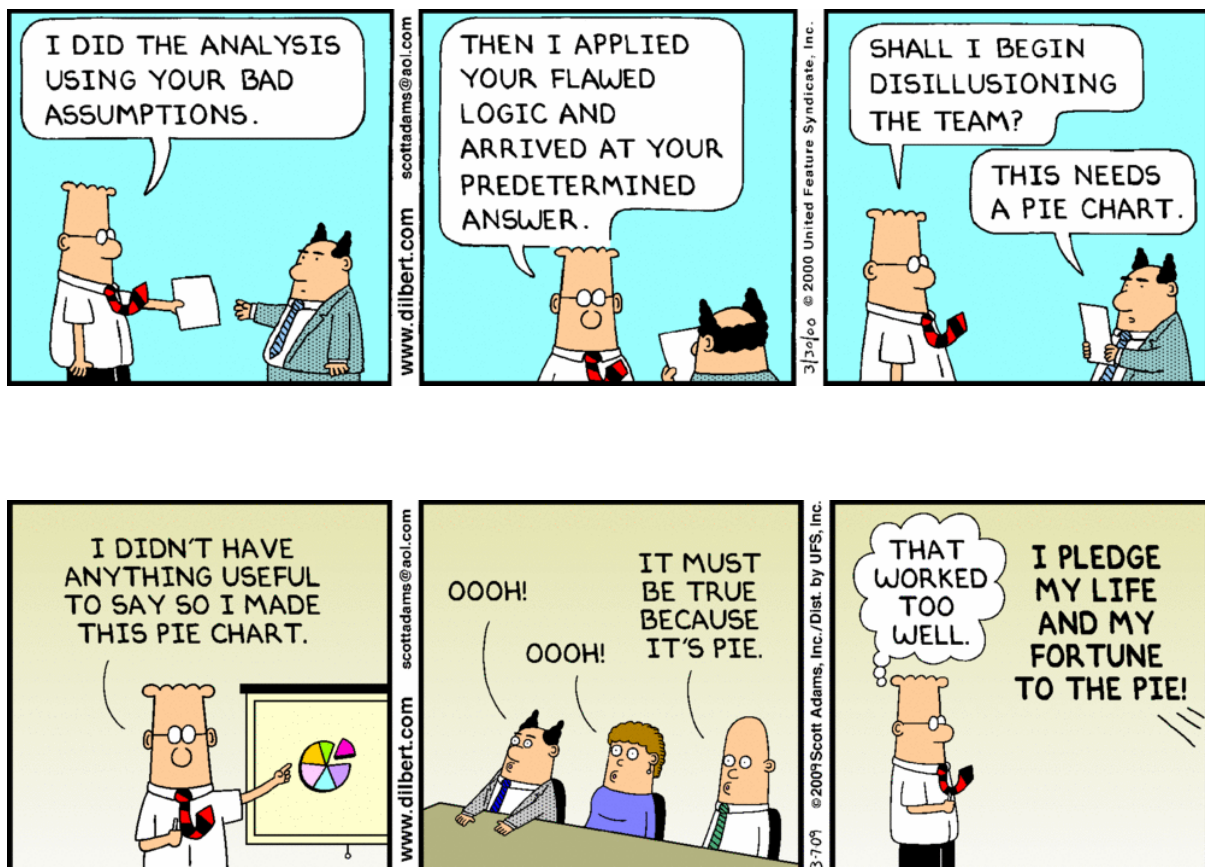
Data visualization is becoming a key element of data. Increasingly popular with organizations in all sectors, data visualization is gradually becoming more widespread. Its advantages make it the ideal tool to help with decision-making and contribute to the proper

direction of the actions carried out. Especially since all departments of the company can benefit from this methodology.

Data visualization refers to the graphical representation of information and data. Using visuals like graphs and maps, data visualization tools make it easy to see and understand trends or unusual values in the data.

In the age of big data, visualization tools and technologies are essential for analyzing huge volumes of information and making data-driven decisions. Our culture is predominantly visual, marked by art, advertising and film, among others, and our gaze is naturally drawn to repetitive colours and patterns. The way we interact with data needs to reflect this.

Just some **Dilbert** comics featuring pie charts. OOOH!





We are in the eighth wave of the coronavirus... Restrictions have been put back in place. Our hospitals are struggling to absorb the flow of patients.

This weekend, equipped with your hand sanitizer in the right back pocket of your jeans and your organic cotton mask, you decided to visit family members to spend a convivial moment.

Of course, after 20 minutes, everyone was tirelessly talking about the same topics related to covid. After checking in with all the first and second generation cousins who had to face this virus and the difficulties that go with it; You wanted to talk about the impact of Covid on the global economy... What a preposterous idea!!! Each member of the family narrated their own interpretation of the pandemic's impact on the economy. The divergence of scenarios did not have the desired relaxing effect that you were so keen on. A little distraught by the situation and as a good data expert, (and above all a big fan of Dilbert), the only solution that seemed obvious was to stage the pandemic through data visualization!!

You couldn't wait to get to work, thanked everyone in your family for a wonderful time together and went home to work on some evidence.

Project details

Develop a multi-page Plotly/Dash dashboard featuring data to assess the impact of the Covid-19 pandemic on the global economy. Content is available here:

<https://data.mendeley.com/datasets/b2wvnbnpj9/1>

<https://ourworldindata.org/coronavirus>

<https://ec.europa.eu/eurostat/web/covid-19/database>

1. The first step is the retrieval of the relevant data for your study, its cleansing as well as the analysis of this data and the pre-processing necessary for this analysis.
2. Do these data really allow us to offer an analysis of the impact of the pandemic on the global economy (yes / no and why?). What strategy should be implemented to demonstrate the impact of this pandemic? Is there any relevant data to support your conclusion about this study?

3. The dashboard will be made in Dash. It should allow for a clear interpretation of the data (graphs should be selected carefully).
4. The dashboard should also contain the semantic analysis you make of the data as a result of your work.
5. The dashboard must offer a publishable quality visual rendering (css, bootstrap components, etc.) and will be hosted on the Heroku cloud server so that it can be communicated on digital media (LinkedIn, CV, etc.).
6. **BONUS:** Create a MySQL relational database to host your databases used in this study (justify the architecture of the BDDR: number of tables / attributes / primary keys / foreign keys, etc.).

Consider creating an anaconda project (python 3.9 or 3.10 recommendation)

References

<https://dash-gallery.plotly.host/Portal/>
<https://dash.plotly.com/urls>
<https://www.heroku.com/>