



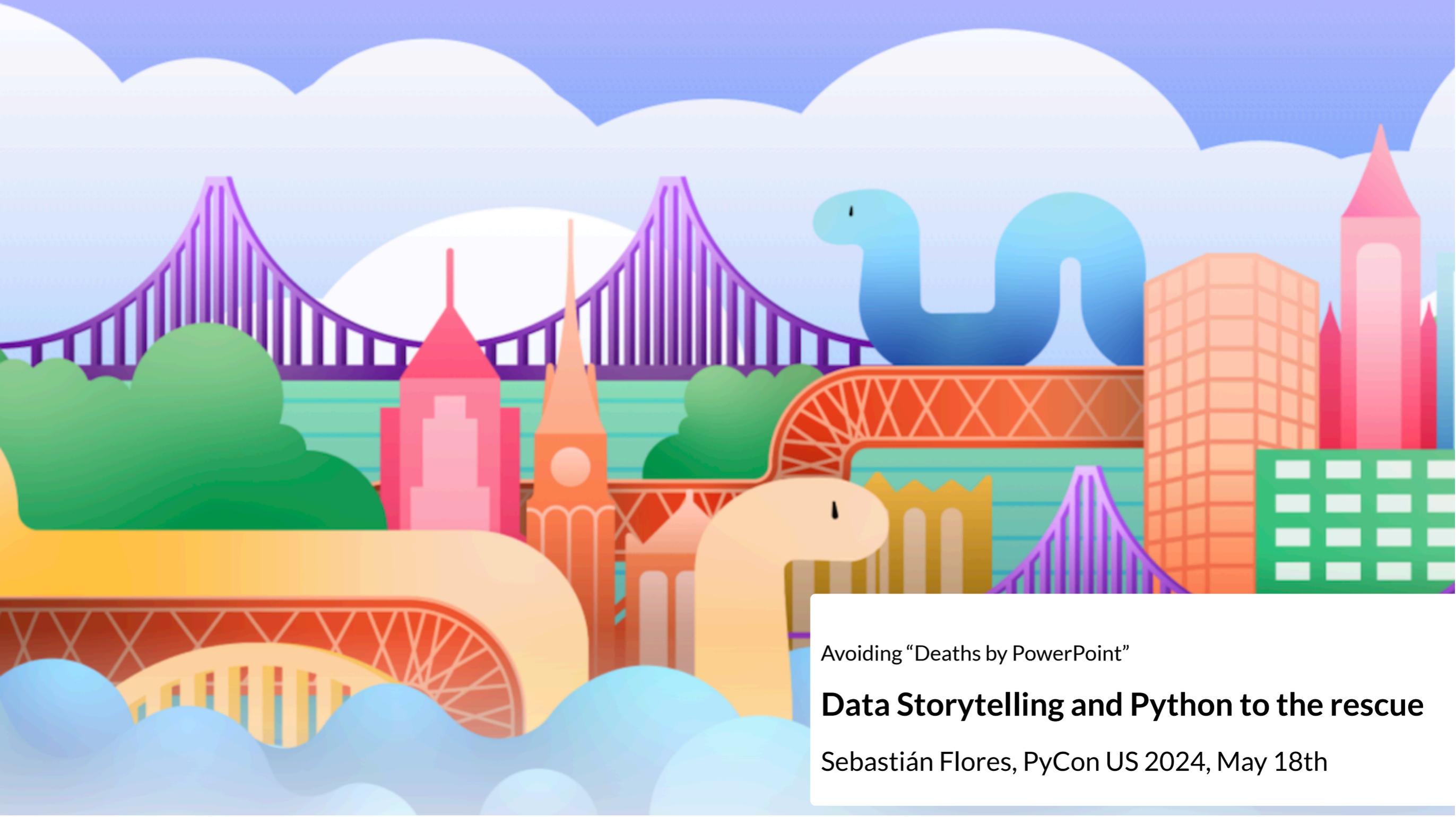
Death by PowerPoint (noun):

A painful experience caused by a long, boring presentation with too many slides filled with text, small fonts, and endless bullet points.

Common symptoms include sleepy eyes, yawning, and a strong desire to escape.

Example: “After an hour, I felt like I was dying by PowerPoint.”

(See also: meeting purgatory, presentation torture)

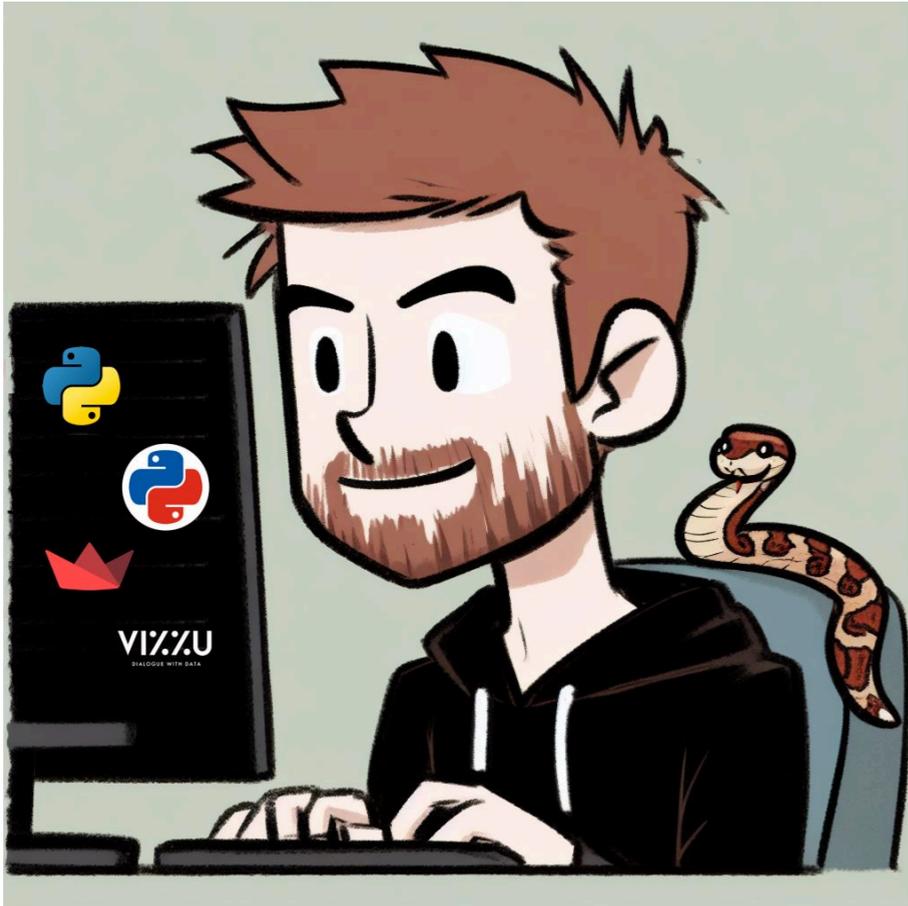


Avoiding “Deaths by PowerPoint”

Data Storytelling and Python to the rescue

Sebastián Flores, PyCon US 2024, May 18th

About me



- Sebastián Flores aka sebastiandres
- Member of Python Chile
- Collaborator to Streamlit and Vizzu
- Chief Data Officer at uPlanner

Agenda

-
- No
- Nope
- No chance

Storytelling principle #1:

Never give away the ending!

Always raise the stakes!





Data Storytelling

Why Data Storytelling?

¿Storytelling?



Stories are
the first human technology

Ohh, those hackable brains

Peak-End Rule

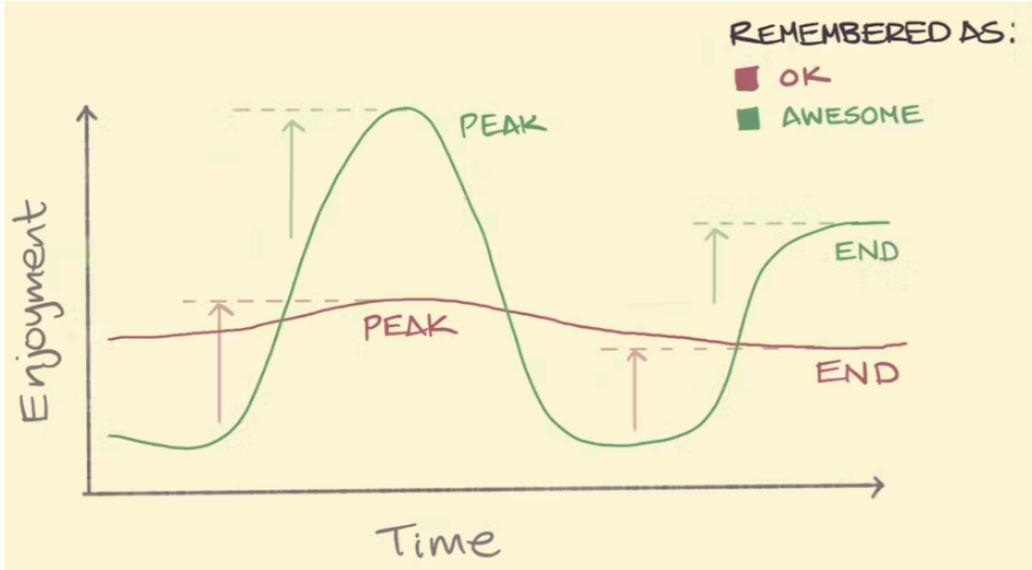
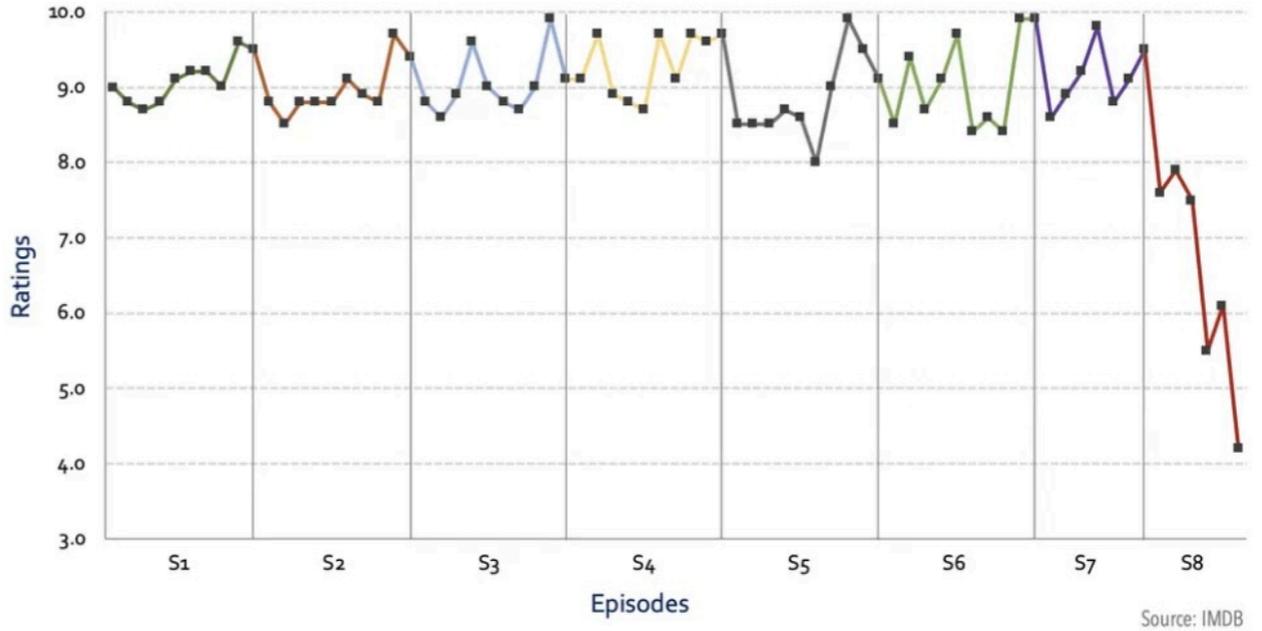


Image by sketplanation



Game of Thrones rating, by Kelvin Neo

Data Storytelling:

Using storytelling **tricks** to create presentations that will be **remembered** and that **create impact**

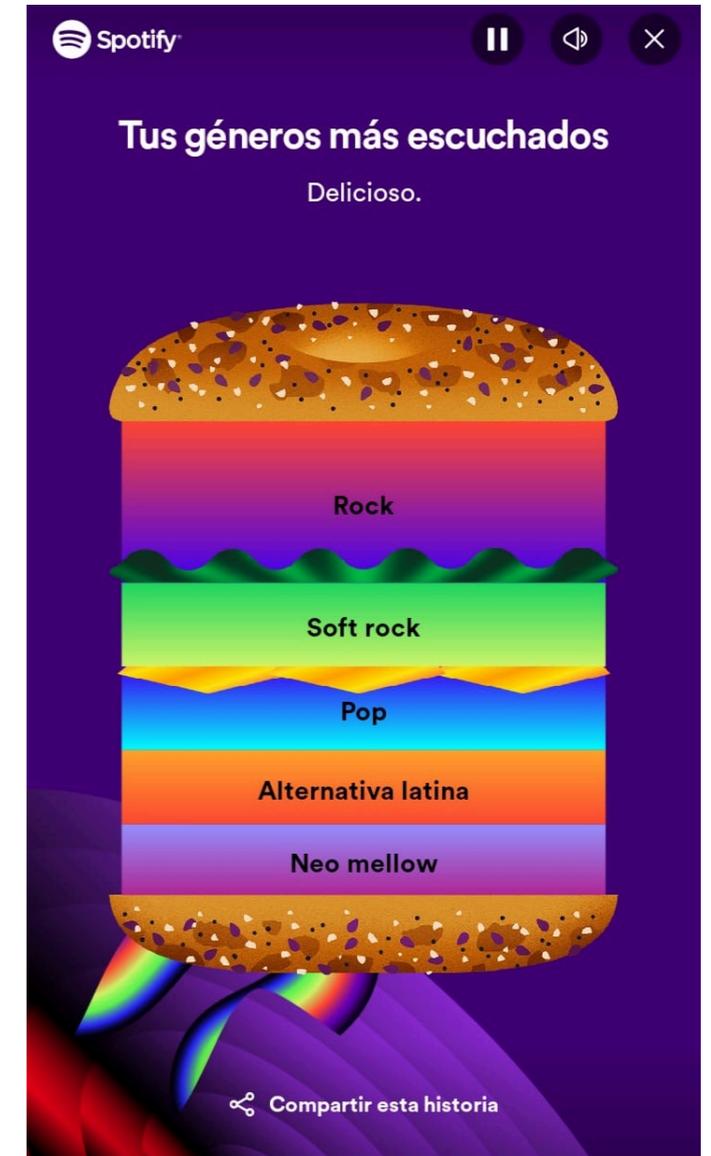


Emotions create actions

The best example



How to make millions of people share statistics on social media?

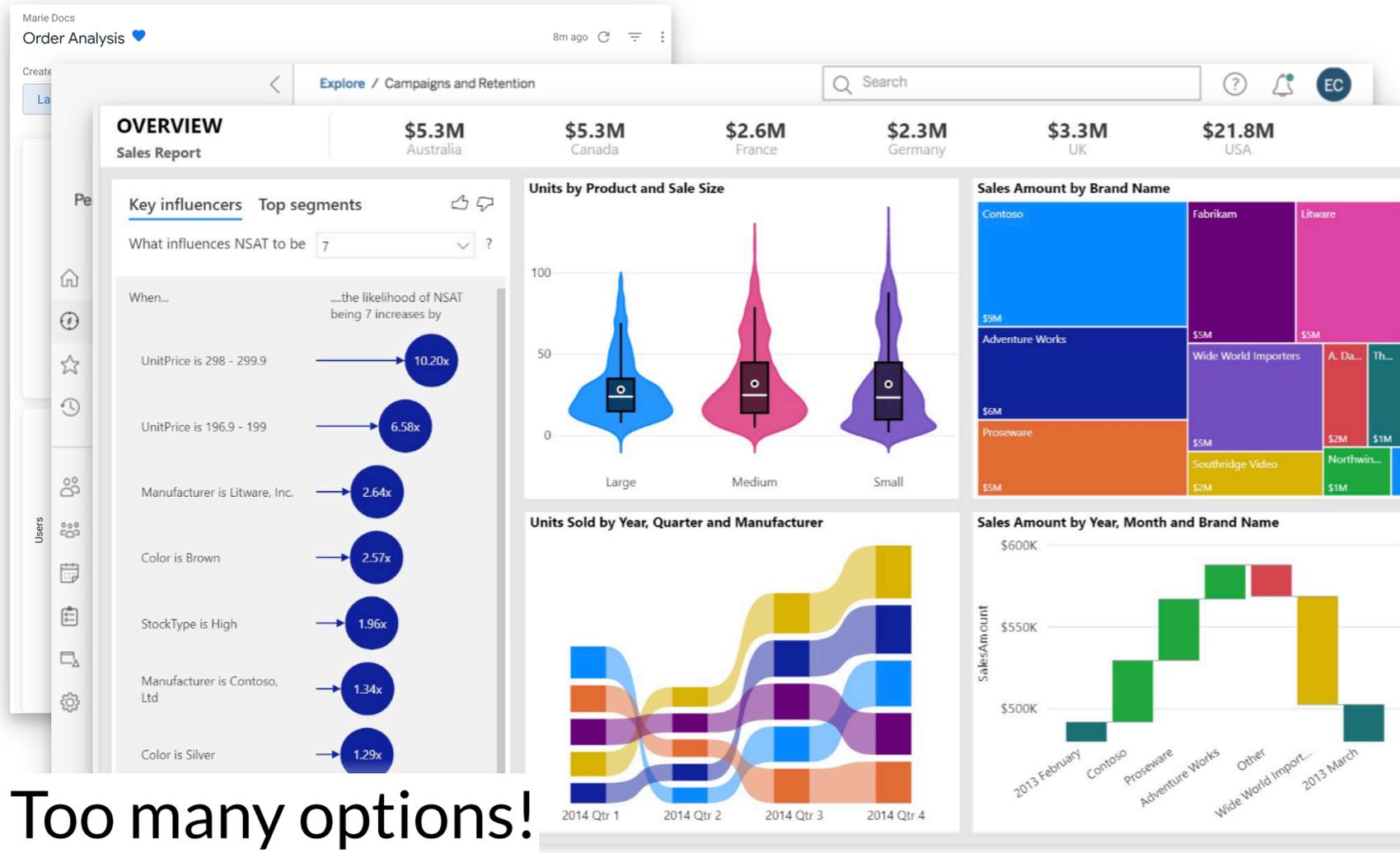




Data Storytelling

Tool #1: Visualization

Data Exploratory Viz



Too many options!

User cannot be responsible of finding your insights.

Storytelling principle #2:

Details are important,
but not **all** details are important.

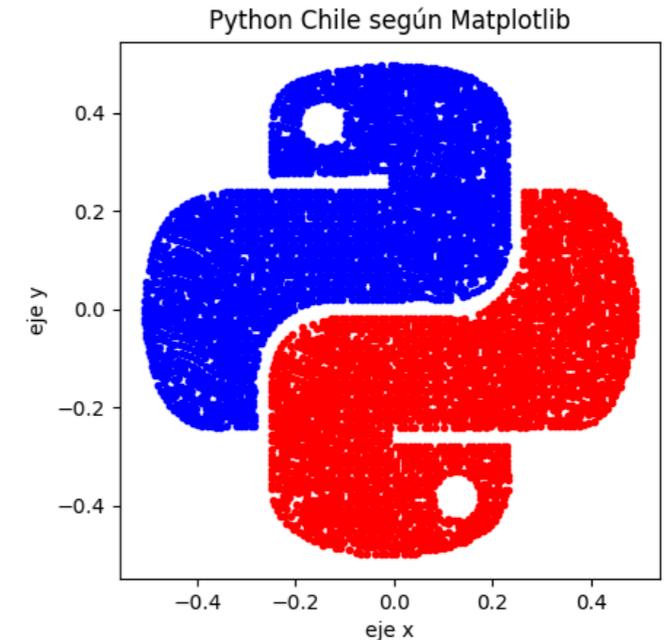


Data Explanatory Viz

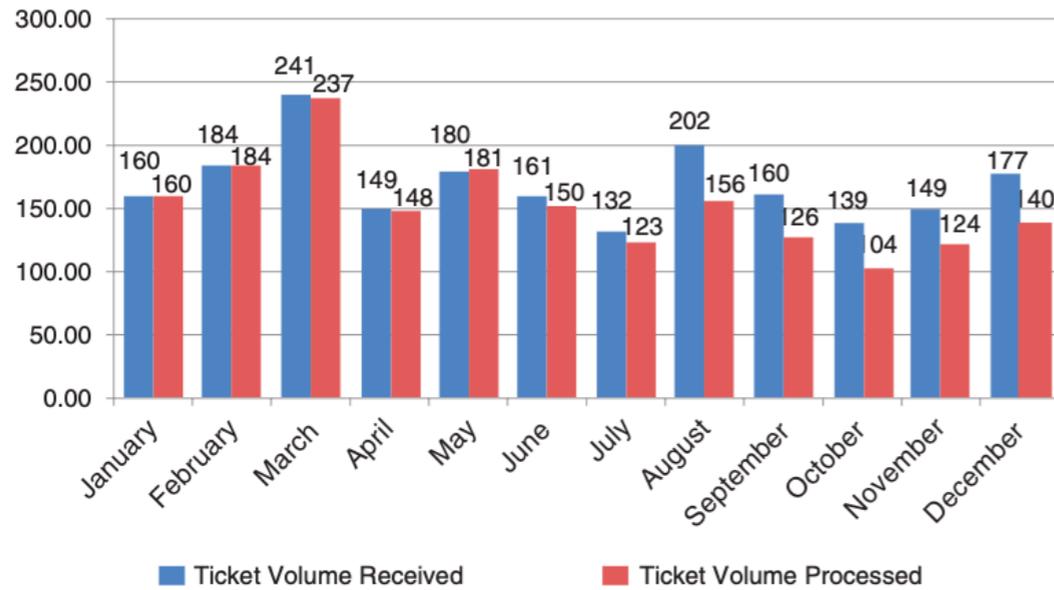
So many good python libraries!

- Classic: Matplotlib
- Rising stars: Seaborn, Plotly, Altair
- Other: bokeh, plotnine, pygal and more!

Pick one and master it



Ticket Trend



Ticket volume over time



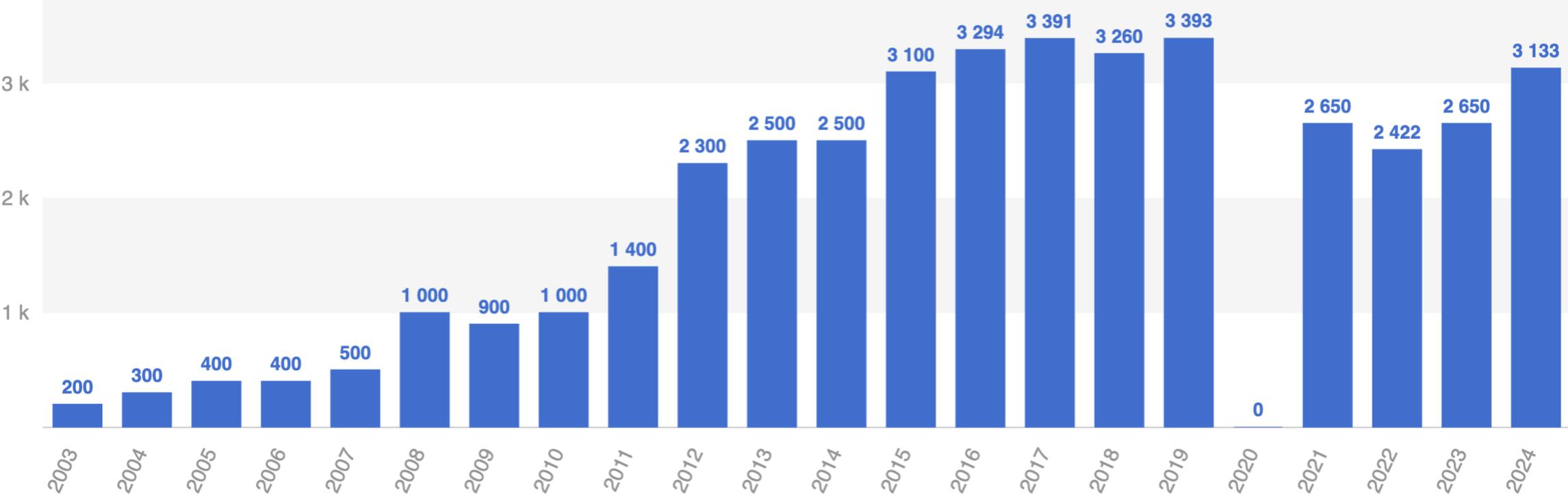
Don't share numbers. Share a story.

(C) Storytelling with Data, por Cole Nussbaumer Knaflic.

Vizzu: A Data Storytelling library in JS & Python

Pycon Attendees

attendees



VIZ:U





Data Storytelling

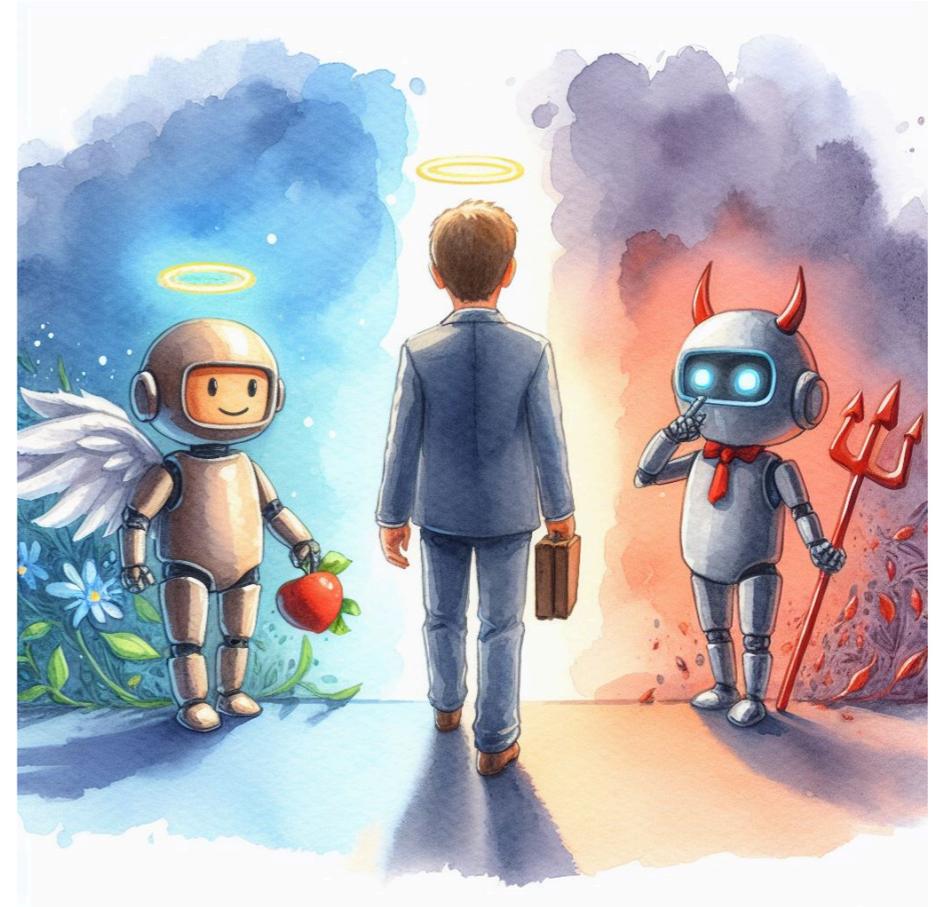
Tool #2: AI

Storytelling principle #3:

Your first draft is always going to be terrible.



- Use AI chatbots for:
 - Analogies and examples
 - Prompts to create better images!
- Don't search for images, create them!





Data Storytelling

Tool #3: Presentation

Storytelling principle #4:

Show, don't tell.



Show, don't tell.

Guido's eyes lit up as the terminal finally executed without errors. A wide grin spread across his face. He jumped up from his chair, fists raised in triumph. "Yes!" he exclaimed, as he savored the moment of triumph with a deep, contented sigh.

Guido was happy because he solved the bug on his code.

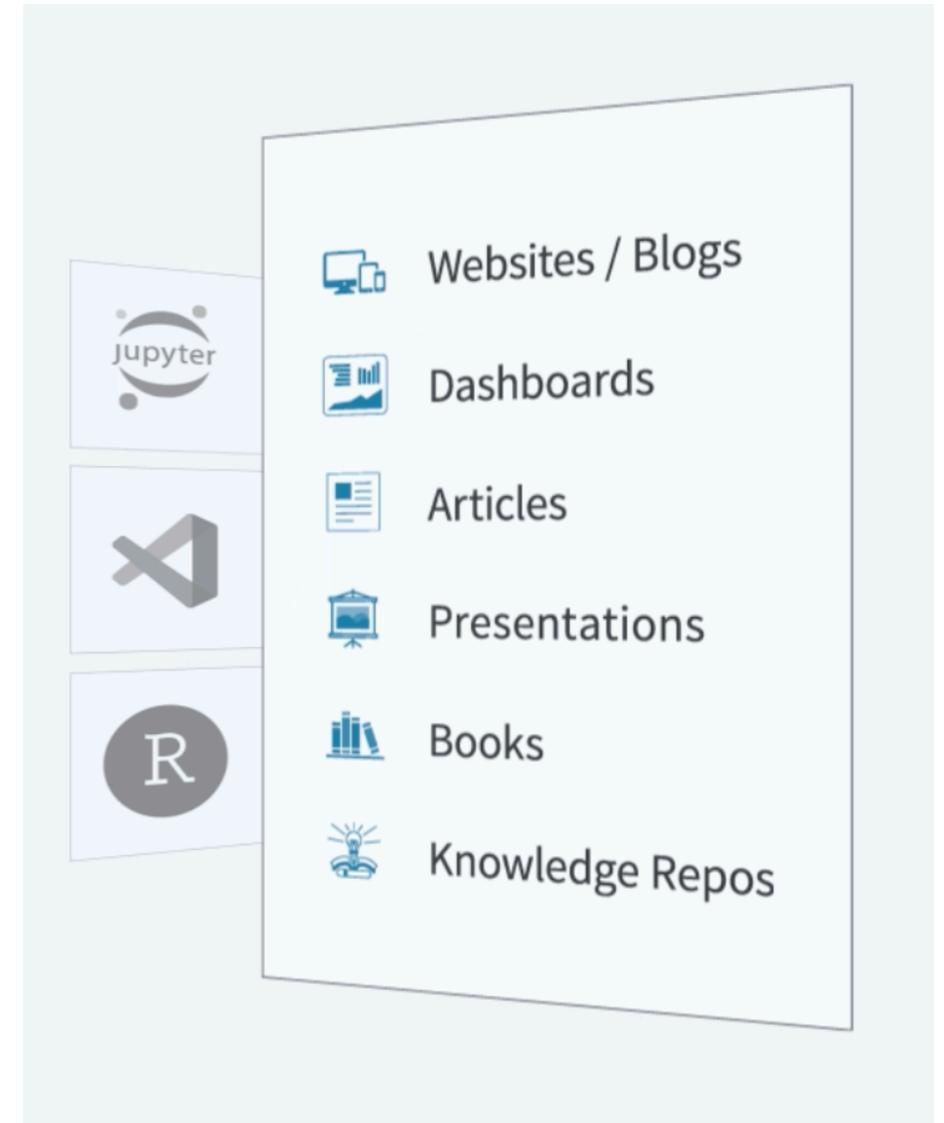
Presentation tools

- Classic: PowerPoint
- **“Show don’t tell” tools: quarto, jupyter + RISE, streamlit**
- Other: canvas, revealjs, prezzi

quarto

An open-source scientific and technical publishing system.

Focus on scientific markdown, dynamic & interactive documents based on code (Python/R/Julia).



<https://quarto.org/>

Code: example.qmd

Slides: example.html

```
---  
title: "Habits"  
author: "John Doe"  
format:  
  revealjs:  
    transition: fade  
    theme: black  
    toc: true  
    center: true  
---
```

```
## Getting up
```

- Turn off alarm
- Get out of bed

Jupyter + RISE

Jupyter extension to display notebooks as revealjs slides.

RISE

5.7.2.dev2

Jupyter slideshow extension

 Star **3,654**

Navigation

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RISE

Reveal.js - Jupyter/IPython Slideshow Extension

Disclaimer

Please be aware that the extension built from this repo **is not compatible with JupyterLab and must be used with the classic notebook** (i.e. notebook <= 6).

JupyterLab and Notebook 7 users are encouraged to use the RISE JupyterLab extension instead:

```
pip install jupyterlab-rise
```

see also the github repo here <https://github.com/jupyterlab-contrib/rise>

What is RISE?

As you know... we love **Jupyter** and we like **reveal.js** too.

With RISE, a Jupyter notebook extension, you can instantly turn your jupyter notebook into a live *reveal.js*-based presentation.

<https://rise.readthedocs.io/>

Jupyter + RISE

The screenshot shows a JupyterLab interface with a RISE presentation. The top bar includes the Jupyter logo, the word "index", and status information: "Last Checkpoint: a minute ago (unsaved changes)". On the right, there is a "Logout" button and a "Python 3" indicator. Below the top bar is a menu with "File", "Edit", "View", "Insert", "Cell", "Kernel", and "Help". A toolbar contains icons for adding, deleting, and running cells, along with "Markdown" and "Enter-Exit RISE Slideshow" buttons. The presentation area consists of four slides:

- Slide 1:** "Welcome to the Binder-RISE demo". Instruction: "Press 'space' to move to the next sub-slide..."
- Slide 2:** "Press it again to be taken to a code cell". Instruction: "You'll be able to click and run the code cell, live in the presentation!"
- Slide 3:** A code cell with the following Python code:

```
In [ ]: # Here are our imports (press shift+enter)
import numpy as np
import matplotlib.pyplot as plt

import matplotlib as mpl
mpl.rcParams['figure.figsize'] = (10, 10)
```
- Slide 4:** A code cell with the following Python code:

```
In [ ]: data = np.random.randn(2, 100)
sizes = np.abs(data[1])
fig, ax = plt.subplots()
ax.scatter(data, s=sizes * 100, c=sizes, cmap=plt.cm.viridis, vmin=-1, vmax=1)
ax.set(title='Now, each plot, do scatter. Each viridis.')
ax.set_axis_off()
```

Streamlit

All python and as interactive as you can to
code it...



Streamlit

<https://streamlit.io/>

Streamlit



Algunos widgets de Streamlit

Un Checkbox

Input de número: 3

Input de texto: Pycon

Python Chile: #1

Slider numérico: 55

Radio: A B C

Comida chilena: Sopaipilla

Teaemple:

Descargar archivo:

Seleccionar color:

Seleccionar fecha: 2021/11/07

Seleccionar hora: 12:33

Mensaje de error: de warning

Mensaje informativo: Mensaje de éxito:

Progress:

Mensaje dinámico: Mensaje de Excepción:

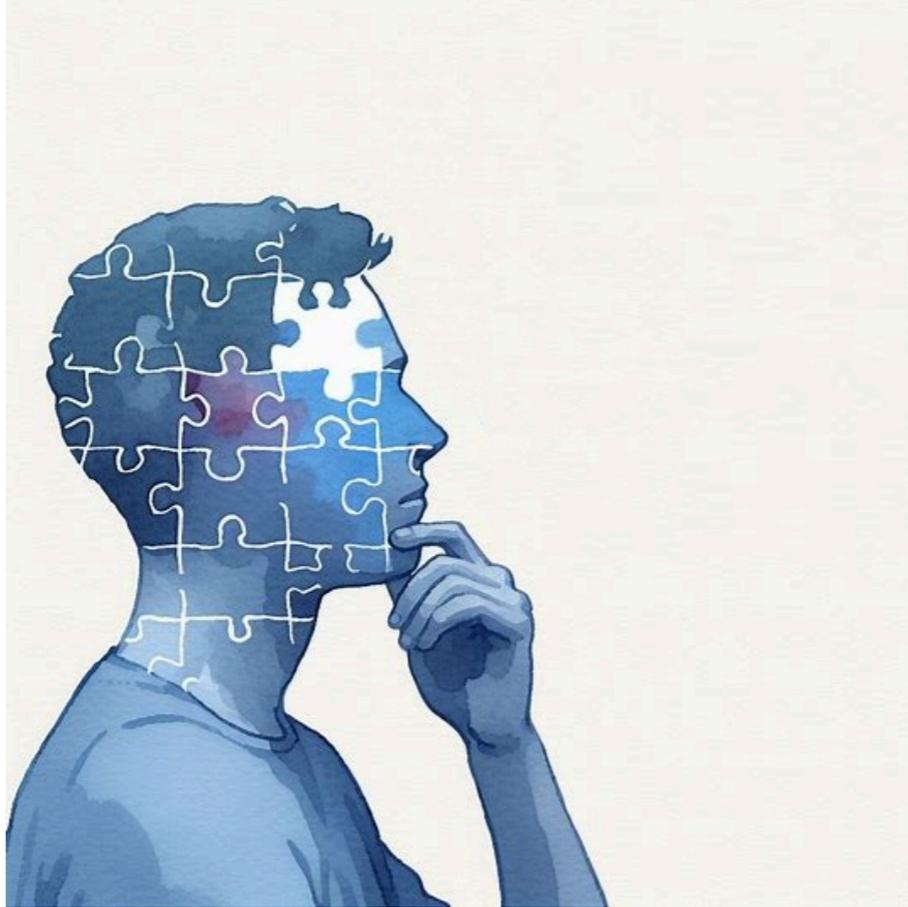
A decision flow

- PowerPoint: Single use no-code presentation
- Quarto: Talks from related documents (books, articles)
- Jupyter + RISE: Workshops or classes. Executing code is important
- Streamlit: Customized/experimental presentations

End



Two stories



Data Storytelling for me

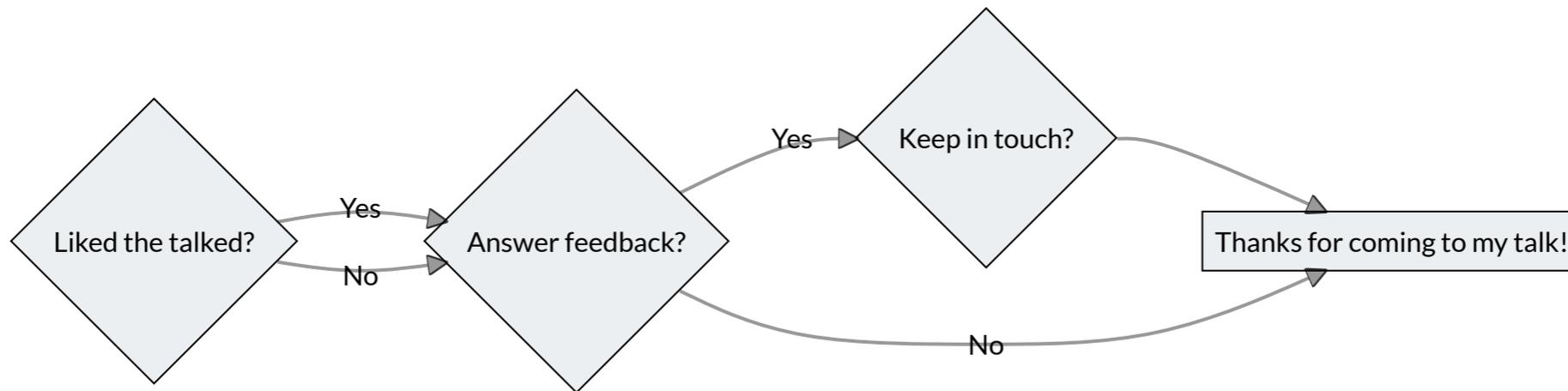


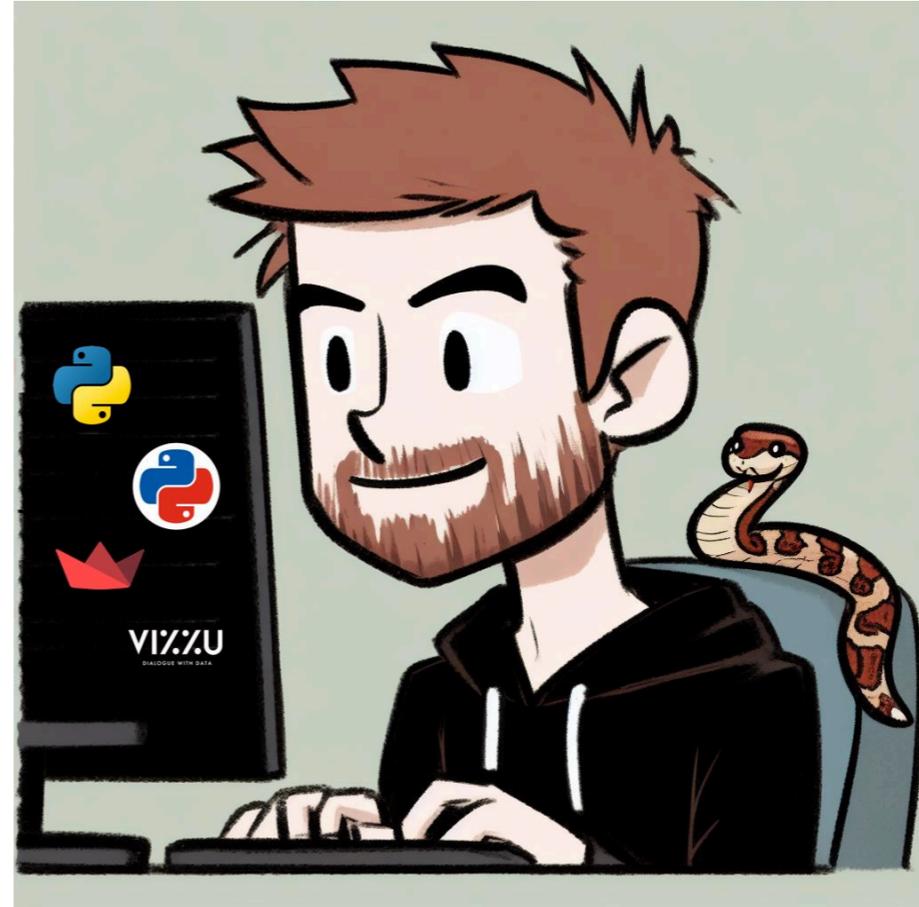
Data Storytelling for you?

I believe that...

- Data Storytelling is a crucial skill
 - YOU can learn Data Storytelling skills and tools
- 

Feedback





<https://tinyurl.com/ycxj9ep5>

Thank you!

sebastiandres | <https://sebastiandres.xyz>

Recommended reading

Storytelling

- Storyworthy, Matthew Dicks
- Made to Stick, Chip Heath and Dan Heath



<https://tinyurl.com/ycxj9ep5>

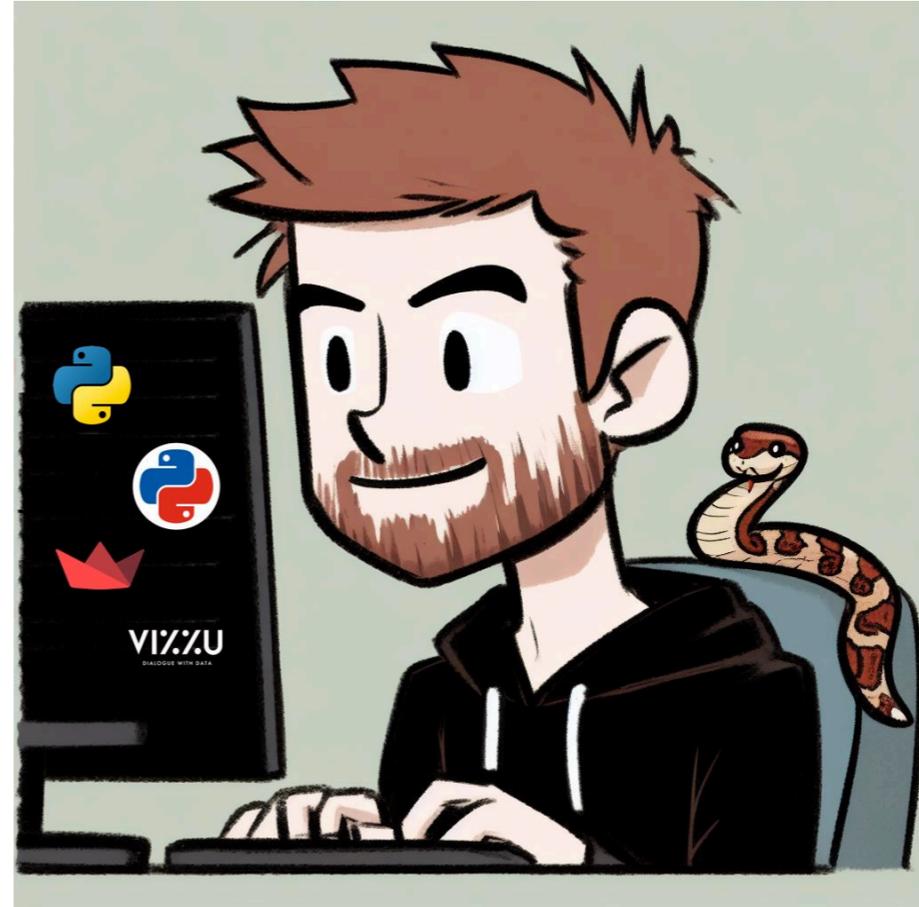
Recommended reading

Data Storytelling

- Storytelling with Data, Cole Nussbaumer Knaflic
- Data Visualization & Storytelling, Jose Berengueres and Marybeth Sandell



<https://tinyurl.com/ycxj9ep5>



<https://tinyurl.com/ycxj9ep5>

¡Gracias!

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