96801 - LANGUAGE LABORATORY: COMMUNICATION OF STATISTICS AND DATA BUSINESS ANALYTICS

LESSON 10 - 10/12/2025

Alice Corona

Dipartimento di Scienze Statistiche "Paolo Fortunati"

ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

COMMUNICATING
DATA

Practical Data Visualization Lab

DATASETS

👉 DATASET #1: <u>Museums and culture</u>
[Source: Ministero della Cultura, ISTAT, Louvre, Tate Gallery]

👉 DATASET #2: <u>Diversity and inclusion</u>
[Fonte: OECD, Kaggle, Grape, Google]

👉 DATASET #3: <u>Survey - Attitudes on the environment</u>
[Fonte: Eurobarometer]

access **Mural** workspace

EXERCISE → D. CRAFT THE VISUALIZATIONS

Continue working on the dataset you chose last time, for which you have identified an audience and a communication goal.

Create the visualizations you have identified in the storyboard

Prioritize quality over quantity. Refer to the checklists in the following slides to make sure you are giving enough thought to all the elements.

1. CHOOSING A CHART TYPE

- ☑ Do I really need a chart? (Not all data or patterns are best told through a viz. Sometimes a sentence or a single number might be more efficient.)
- ☑ Have I decided what are the messages the chart should communicate, and what chart types might be suited for it?
- ☑ Have I created these charts and reflected on the pros and cons of how the visual encodings are perceived?
- ☑ Have I evaluated whether calculating and visualizing a metric/indicator, rather than the unprocessed data, could be more effective?
- ☑ Have I thought about if/how to include contextual data (prior years, reference values, etc.)?
- ☑ Have I tested different data granularities (in terms of geography, time, etc.) to see which is more suited for the message I want to communicate?
- ☑ Have I sorted the elements (es. bars, rows of the table, etc.) in a meaningful way?
- ☑ Have I selected the appropriate amount of data points to be visualized?
- ☑ Am I using appropriate visual metaphors for my data?

2. CHOOSING COLORS

☑ Have I decided a type of color palette (qualitative/quantitative/sequential, etc.) that is suited for my data?

☑ Have I thought about the shape/skewness of my data, as well as my communication goals, to decide on the interpolation (linear, quartiles, binned, etc.) with which to assign colors?

☑ Can I use color to help viewers navigate the chart (by showing connections, highlighting what's important or leveraging colors' culturally-dependent meanings)?

☑ Have I tested colors for accessibility and readability (color blindness testing, contrast, etc.)?

☑ Have I checked whether I am using too many colors?

3. USING TEXT

☑️ Does my chart have the appropriate amount of text to help make sense of it? (title, sources, axis titles and labels, subtitles, annotations, footnotes, etc.)

☑️ Are my titles consistent with the messages I want to communicate?

☑️ Am I using my titles types coherently with my type of piece (scientific paper vs. journalism ...) [see E. Bertini on types of titles]

☑️ Am I using my titles types coherently throughout the whole piece? [see E. Bertini on types of titles]

☑️ Am I using labels and category names in a way that is coherent with the data but also ethical?

EXERCISE → E. ASSEMBLE THE CONTENT

Continue working on the dataset you chose last time, for which you have identified an audience and a communication goal.

Put together the visualizations and text following your storyboard:

What you do will depend heavily on the chosen format (infographic / social media post / longform article, etc.)

TOOLS

☑ **GIFMaker** / **LiceCap**
[GIFS]

☑ **Flourish Stories**
[Horizontal scrollytelling; Presentations]

☑ **Canva**
[Social media posts; Presentations; Posters; Brochures; Infographics; etc.]

☑ **Figma**
[Social media posts; Presentations; Posters; Brochures; Infographics; etc.]

☑ **Inkscape**
[Social media posts; Presentations; Posters; Brochures; Infographics; etc.]

☑ **Medium**
[Article]

☑ **Lapis**
[Article]

Upload your viz / work

UPLOAD THE VISUALIZATIONS OR LINKS
IN THIS FOLDER

Final considerations for

TOMORROW & THE EXAM

THE EXAM

THE DELIVERABLES

- **1 PROJECT PITCH**
  In the last in-person lesson, you will present to the whole class a pitch with your idea of the project. The pitch will be of about 5 slides. A template will be provided, and there will be a lesson explaining how to craft a pitch. 🚨 <u>Deadline: 11/12/2025</u>

- **THE ACTUAL PROJECT**
  A presentation, a PDF report, a series of Instagram graphics..whatever you choose as the appropriate format. You will receive a Google Form survey to submit the exam and the project pitch. Each team member has to answer the Google Form (with the same files). <u>Deadline: chosen exam session</u>

THE EXAM

WHAT TO INCLUDE:

- **Cover slide**: names of participants
- **SLIDE 1**: The scenario
- **SLIDE 2:** Data sources (where will you find the data)
- **SLIDE 3**: About the audience (characteristics & needs)
- **SLIDE 4:** Data questions (what questions about the data would be relevant?)
- **SLIDE 5:** The format and potential structure
- **OPTIONAL EXTRAS:** Interesting insights or viz ideas

Upload your presentation

UPLOAD YOUR PRESENTATION
IN **THIS FOLDER** BEFORE THE BEGINNING
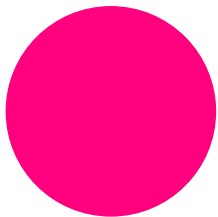OF TOMORROW'S LESSON

THE EXAM

THE DELIVERABLES

- **1 PROJECT PITCH**
  In the last in-person lesson, you will present to the whole class a pitch with your idea of the project. The pitch will be of about 5 slides. A template will be provided, and there will be a lesson explaining how to craft a pitch. 🚨 Deadline: 11/12/2025
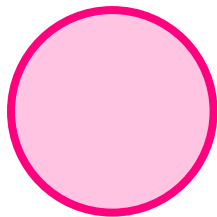
- **THE ACTUAL PROJECT**
  A presentation, a PDF report, a series of Instagram graphics..whatever you choose as the appropriate format. You will receive a Google Form survey to submit the exam and the project pitch. Each team member has to answer the Google Form (with the same files). Deadline: chosen exam session
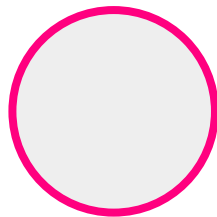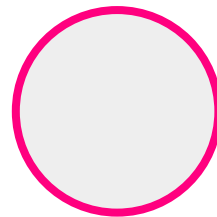
DEFINE THE CONTEXT

Stakeholders, Audience, Motivation

DEFINE THE CONTENT

Data questions, Insights, Messages

ORGANIZE THE CONTENT

Storyboard, Strategies, Text/Charts

ASSEMBLE THE CONTENT

Charts, Text, Format

Submit the exam

MAKE SURE YOU ARE REGISTERED IN ALMAESAMI

SUBMIT THROUGH THIS <u>FORM</u> BEFORE THE SESSION DEADLINE

READINGS

- Bertini, Enrico - Various Publications & Newsletter

- Bouk, Dan (2022). Democracy's data

- Cairo, Alberto (2020). How charts lie: Getting smarter about visual information.

- D'Ignazio, Catherine & Klein, Lauren (2020). Data Feminism.

- D'Ignazio, Catherine (2023). Counting Feminicide: Data Feminism in Action

- Feinberg, Melanie (2022). Everyday Adventures with Unruly Data

- Graham, Mark, Dittus Martin (2022). Geographies of Digital Exclusion: Data and Inequality

- Loukissas, Yanni (2022). All data are local

- Milan, Stefania - Various Publications

- Pater, Ruben (2016). The politics of design: A (not so) global design manual for visual communication.

- Pater, Ruben (2021). CAPS LOCK

- Thorp, Jer (2021). Living in Data

- Edited by Angela Daly, S. Kate Devitt and Monique Mann. (2019). Good Data