

**CORSO DI LAUREA IN COMUNICAZIONE E SOCIETÀ
CORSO DI LAUREA IN COMUNICAZIONE PUBBLICA E D'IMPRESA
MA IN PUBLIC AND CORPORATE COMMUNICATION**

**DATA VISUALIZATION LAB
by Beatrice Gobbo**

What does it mean to visualize data? How can a data visualization produce knowledge? How do you tell a story through data?

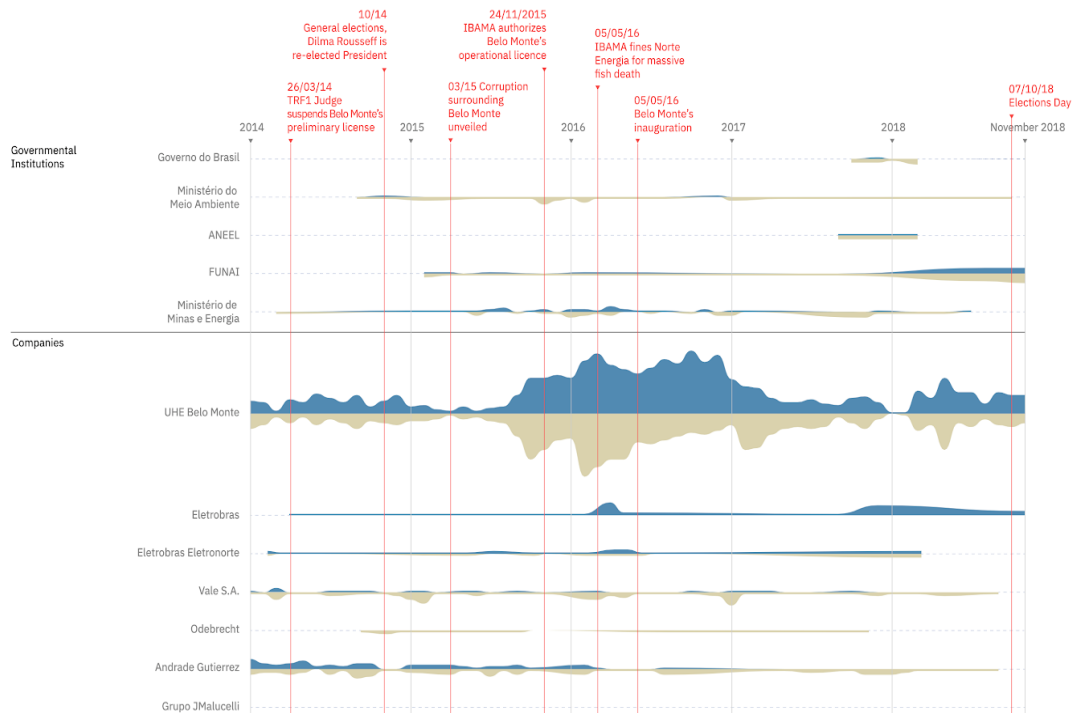
The Data Visualization lab is structured in 5 lessons aimed at learning some basic skills and notions. The program includes both theoretical and practical lessons aimed at the design of the final group assignment. During the theoretical lessons, topics related to the history of data visualization and to communication strategies to design stories (visual-storytelling, visual variables) will be discussed. During the practical lessons, useful tools to manipulate data and design visualizations (*Google Spreadsheet, Open Refine, RawGraphs, Gephi, Kepler*) will be presented in the form of live tutorials.

People enrolled will work in groups and at the end of the course will be required to present a small project that, through the visualization of open data (eg: <https://dati.comune.milano.it/> , <https://www.kaggle.com/datasets>), tells a compelling story on a free theme.

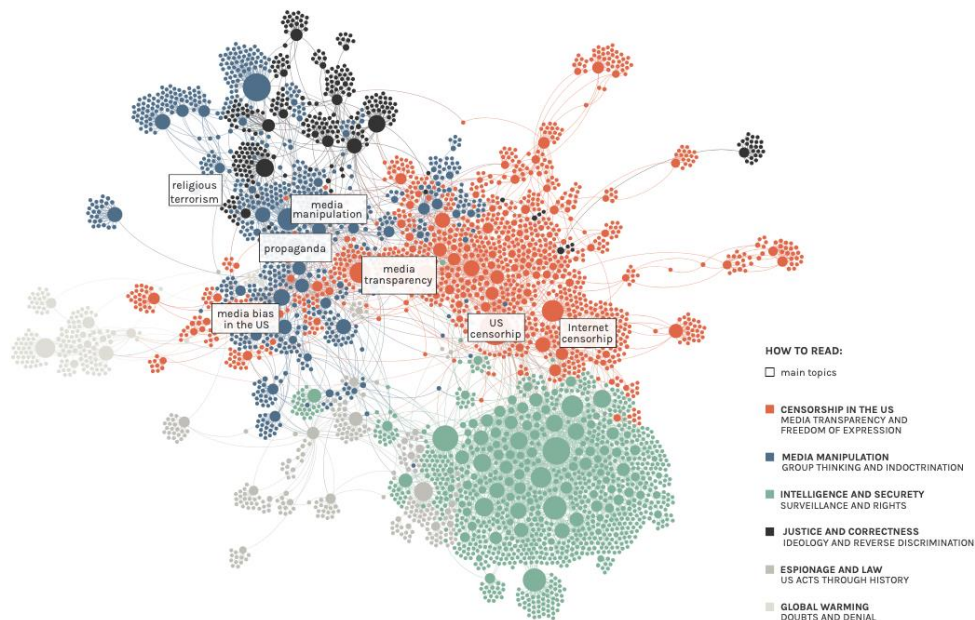
Since this is a preparatory course, no specific previous skills are required, if not a good autonomy in managing the Office suite or Libre Office, specifically Excel and PowerPoint.

For Tutorial #1 download **OpenRefine**

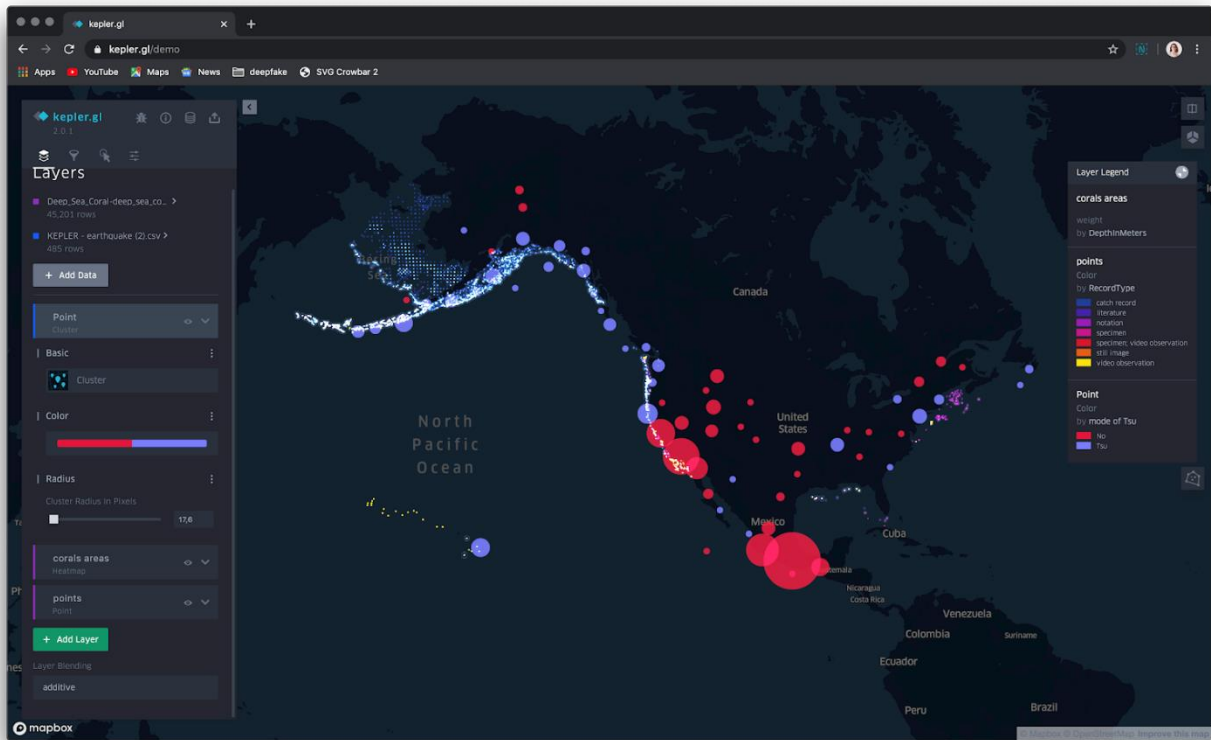
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|---|--|
| Day 1 9th May 14:00 - 17:00 | Lecture #1: Introduction to Data Visualization topic, tutorial presentation. Break Tutorial #1: Introduction to tools: <i>Spreadsheet</i> and <i>Open Refine</i> Tutorial #2: Introduction to Data Visualization: <i>RawGraphs 2.0</i> |
| Day 2 16th May 14:00 - 17:00 | Tutorial #3: Introduction to Networks: <i>Gephi</i> Break Project Review |
| Day 3 23th May 14:00 - 17:00 | <i>Tutorial #4</i> : Introduction to maps: Kepler.gl <i>Lecture#2</i> : Data Styling: encoding, decoding, and understanding (How to stage a presentation) Break Project Review |
| Day 4 30th May 14:00 - 17:00 | Project Review |
| Day 5 6th June 14:00 - 17:00 | Final Presentation |



Example of Visualization made with RawGraphs. Group 7, 2018/2019 DensityDesign > <https://densitydesign.github.io/teaching-dd14/es02/groupo7/>



Example of visualization designed with Gephi. Group 4, 2016/2017 DensityDesign > <https://densitydesign.github.io/teaching-dd12/es02/groupo4/>



Example of visualization made with *Kepler.gl*

Recommended teaching materials (available in the Politecnico di Milano libraries, too)

E. Tufte - The visual display of quantitative information:

https://www.edwardtufte.com/tufte/books_vdqj

J. Drucker - Graphesis: <http://www.aisdesign.org/aisd/johanna-drucker-graphesis>

M. Correll - Ethical Dimension of Data Visualisation Research:

<https://dl.acm.org/doi/10.1145/3290605.3300418>

Criteria for admission

The lessons will be held through the Teams application. The technical instructions will be sent to the participants by email, before the start of the lab.

The first 30 students will be admitted.

Please note that the attendance is mandatory in order to gain 3 credits.

Registration

online on the web site <https://forms.gle/bnu7U1ji48fMzu8A7>

3 May 2022 - from 12.00