

Multimedia Tools in Education: Visualizing Data

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Data Visualization - Definitions and Types

Data Visualization: A general way of talking about anything that converts data into a visual representation (e.g. charts, maps, graphs, tables). This umbrella term includes both information visualization and scientific visualization.

Scientific visualization example: air flow over the wing of an airplane

Information visualization example: the shifting popularity of American girls' names over time

Consider these types of visualizations, and think about what is most useful for your classroom:

- Static representations of information
- Embedded with static content
- Embedded with interactive content
- Customizable by preference/perspective
- Dynamic and evolving

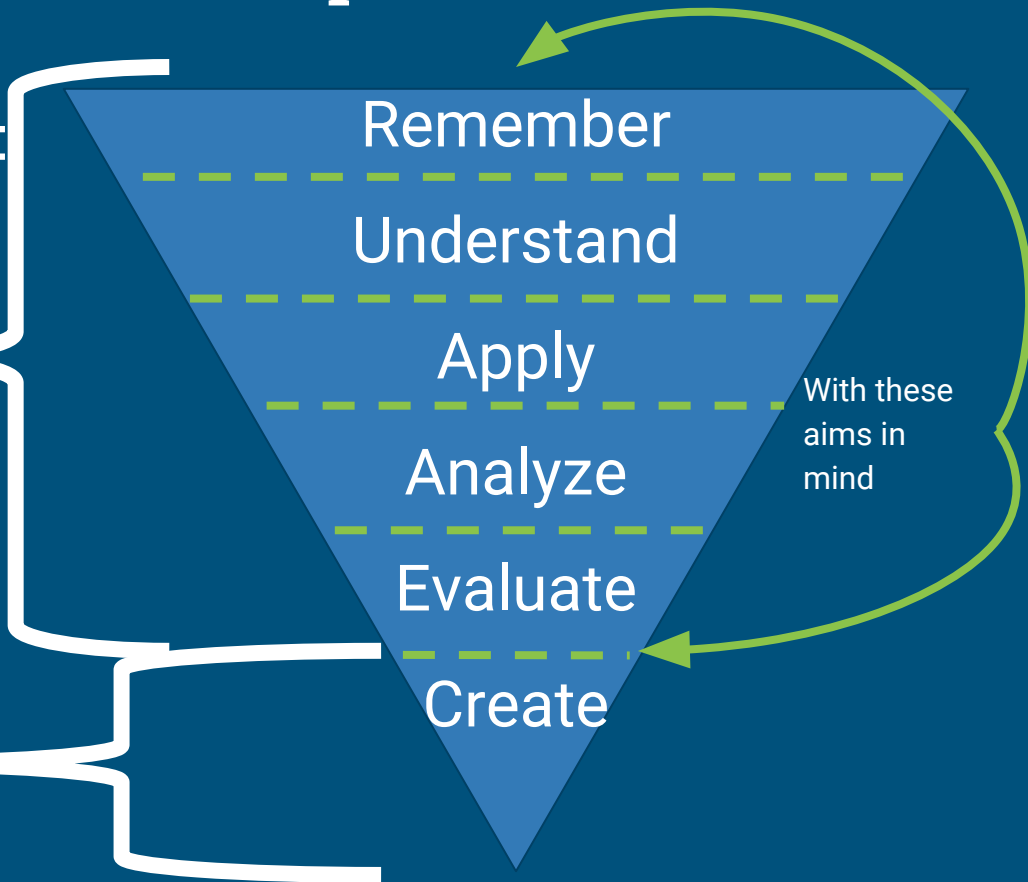
Data Visualization with a Purpose

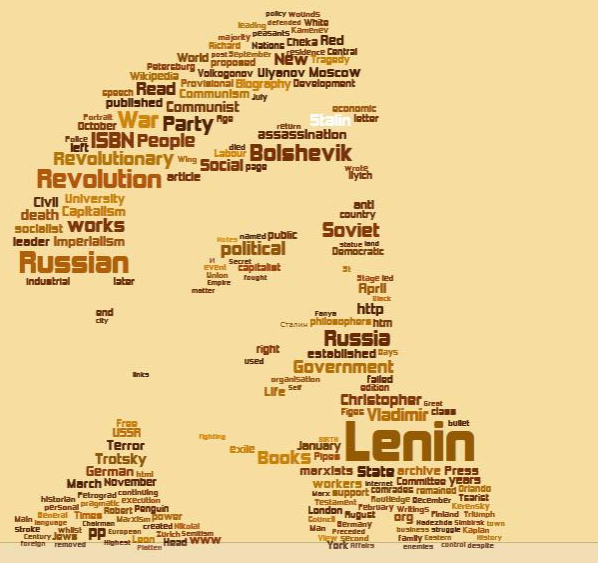
Think Bloom's Taxonomy:

Use existing resources to help students work through these phases:

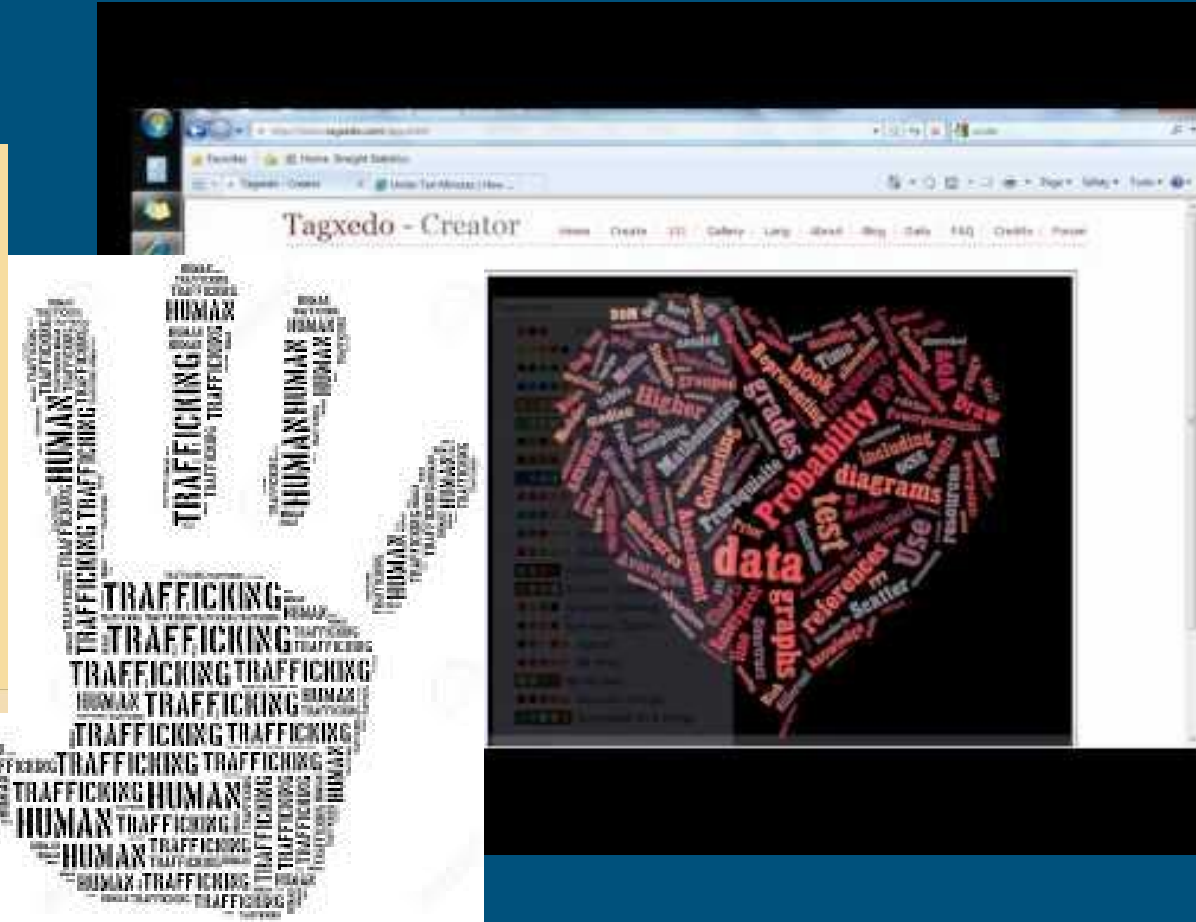
Or, create visualizations for your class, if you're really ambitious...

Once you're confident in their analysis/evaluation skills, ask students to:



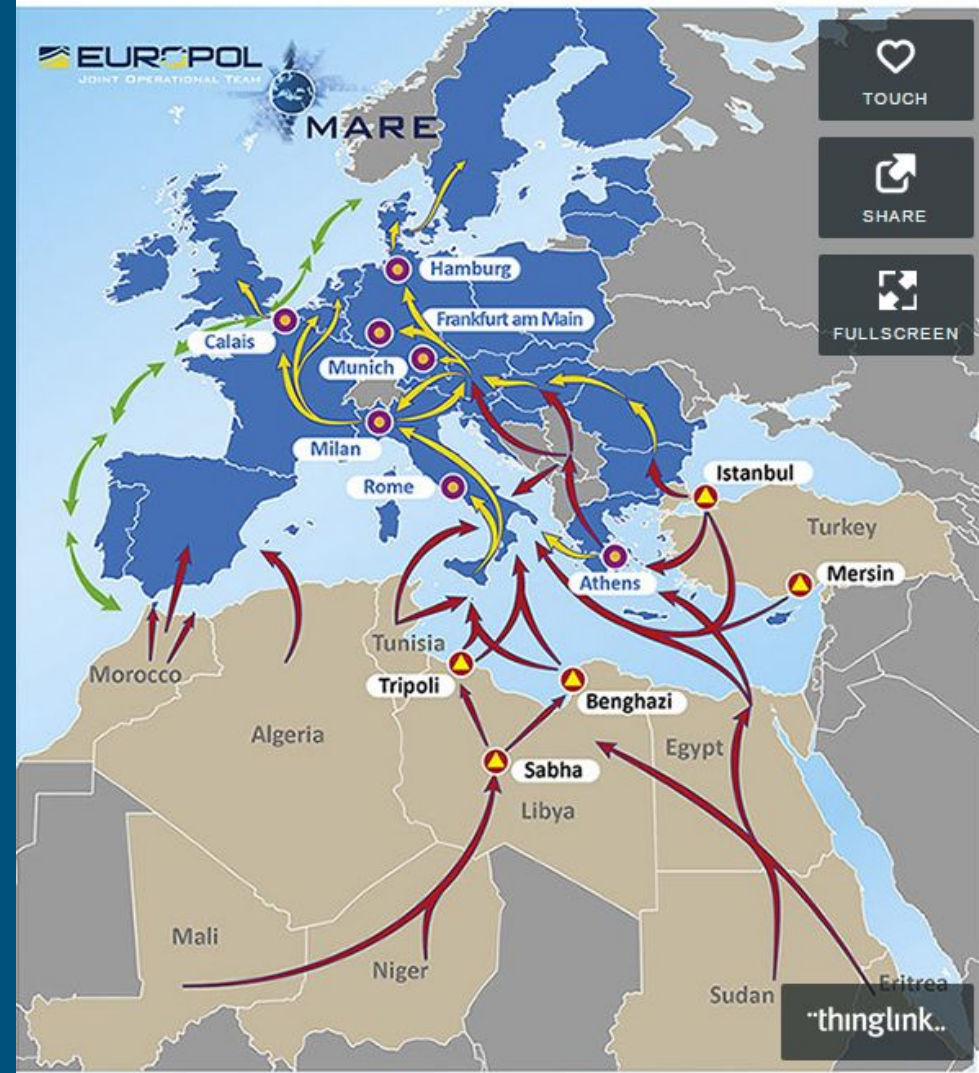


Word Clouds



Visualizations with Embedded Information

Thinglink:
Migration Crisis in Europe



Interactive Visualizations

Peplemovin:
Population flow across the
world



World Population: 6,853,328,460
Migrants in the world: 215,738,321

Almost 216 million people, or 3.15% of the world population, live outside their countries.

Click on a country box to know more about migration flow to/from that country.

Top migrant destination

[see more](#)

USA	42,788,029
RUSSIAN FED.	12,270,388
GERMANY	10,758,061
SAUDI ARABIA	7,288,900
CANADA	7,202,340
UNITED KINGDOM	6,955,738
SPAIN	6,900,547
FRANCE	6,684,842
AUSTRALIA	5,522,408
INDIA	5,436,012

Top emigration countries

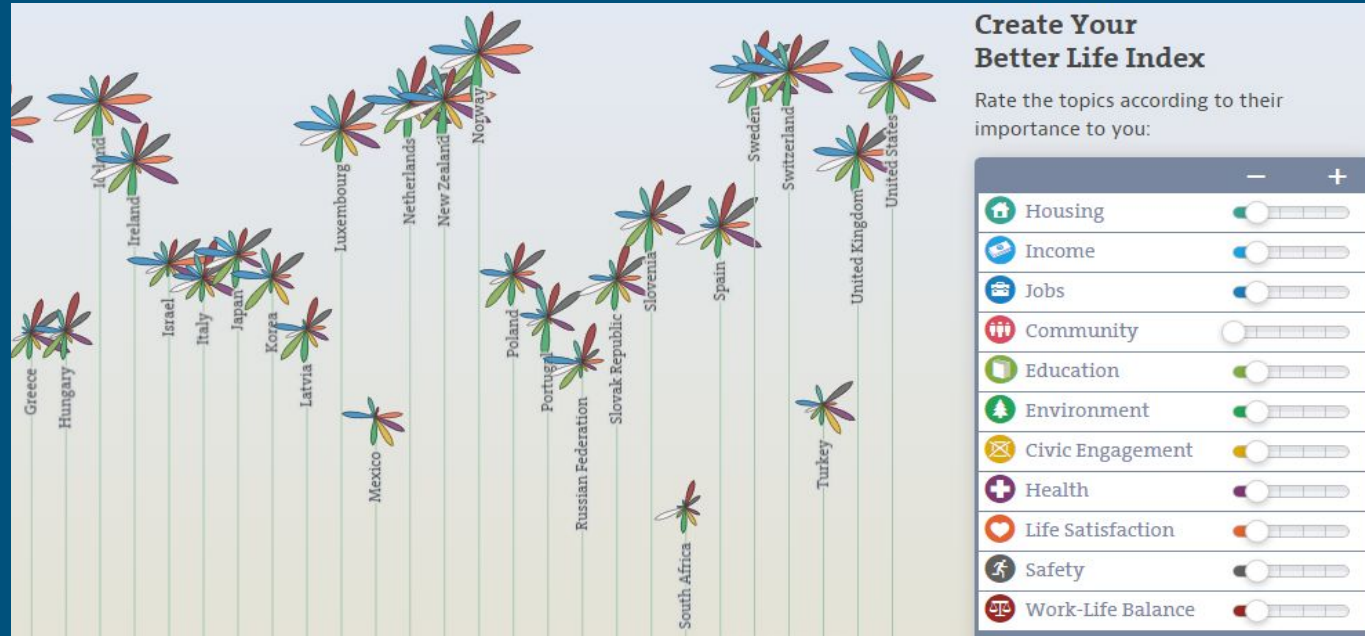
[see more](#)

MEXICO	11,859,236
INDIA	11,360,823
RUSSIAN FED.	11,034,681



Customizable Visualizations

OECD:
The Better Life Index



Dynamic and Evolving Visualizations

Abacaba: The Evolution of US Girls Names

