



**TOWARDS A MORE  
STATISTICALLY  
LITERATE FUTURE**

# Data literacy and official statistics

Development and promotion of statistical literacy

Patrizia Collesi



- The **development of statistical literacy** is implemented through actions aimed at increasing the critical sense of the users through the correct understanding of statistical data and information. Constituent elements of this process are:
  - the promotion of the paradigm of statistical research (fundamental in the process of acquiring knowledge through the empirical observation of reality);
  - the orientation to the use and application of data and information produced by official statistics to a plurality of cognitive, decision-making and evaluation contexts;
  - the development of a method for decision-making, especially in conditions of uncertainty, through the use of official statistics;
  - the knowledge of the set of criteria that guide the activity of the statistician and of the researcher;
  - the promotion of metadata culture;
  - the attention to quality and its “certification”.



- The activity of statistical dissemination has the purpose to permit a wide dissemination of statistical products so as to permit a wide knowledge of the statistical toolbox which allows everybody to find the correct route in the infodemic panorama, orienting between fake news and opinions' dictatorship.
- Rampant misinformation is linked to distrust of official scientific information. Our daily efforts allow us to contain and respond, contrasting what is on the spot, but also sowing seeds for the future...



- The role of promotion of statistical literacy:
  - to bridge the gap between what exists and what is known
- Most often citizens do not know that official statistics measures their lives
- Informed citizens know the value of official statistics and use them to take informed decisions
- To prevent the misuse of statistics is more effective than combat it, and with solid basis and methodologies it is more effective



- Official statistical literacy: a shared language against misinformation
- Characteristics of the shared language:
  - Common methods
  - Common definitions
  - Comparable results
- To prevent the misuse of statistics is more effective than combat it, and with solid basis and methodologies it is more effective



- Have you ever thought of which data – out of the sphere of official statistics - are comparable?
- The common background makes data comparable and is an asset to contrast fake-news and mis-information



- Achieving understanding (of data) involves necessarily statistics that are open, and official
- Only official and public statistics are open and present their methods
- Are private surveys open? Do they publish metadata? (Survey designs/data collections methods?)



- The basics of official statistical data:
  - the sources are given, which means “according to a survey 29% of citizens”, “a survey?”, “what survey?”, “what variables?” “where are data coming from?”, “what are the definitions?”
  - the definitions are given(coming from common classifications), permitting comparisons





Starting from school permits to develop data literacy, data culture

- Practical examples of our projects (to educate the young generations):
  - The Permanent Census on School Desks project (primary and lower secondary students)
  - The Italian Statistical Olympiads (upper secondary students)
  - The At the School of Open Cohesion project (upper secondary students)
- Through school the shared background within which to present our activities) can be built



And for those who didn't start to learn data at school?

- Other products are available, such as the section “Data at hand” (“Dati alla mano”)
  - introduces a common label for existing products
  - produces new deliverables: podcasts, simple data news, introducing new topics or topics under the spotlight
- To understand societal topics is essential for civic engagement in modern societies



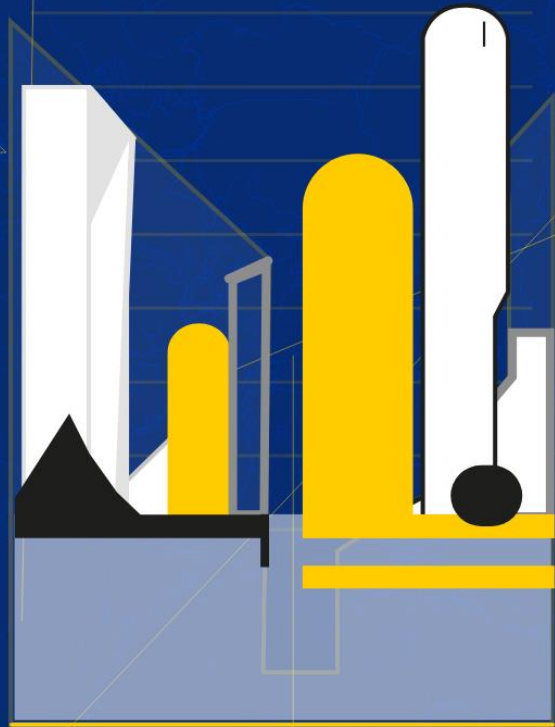
- When public debate is framed by appeals to emotion disconnected from the details of policy, it is ever more important for citizens to be critical consumers of media reports, being aware of misuse of statistics and knowing effective ways to overcome them



In short:

What is the consequence of using good sources for statistical literacy at different levels and for different targets?

- Being able to find and use official statistics for simple products (students)
- Being able to use official statistical data in a wide context and for personal reasons (informed citizenship)
- Dealing with official statistical data for current work activities



## TOWARDS A MORE STATISTICALLY LITERATE FUTURE

# Group discussion – questions

1. In which period of life should statistical literacy begin?
2. Which are the basic components of statistical literacy? What is writing useful for?
3. What is the role of official sources?