



# From Lab to News: Introduction to Science Journalism for Scientists

## Media representation of science and its impact on public perception

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**IR0000032 – ITINERIS, Italian Integrated Environmental Research Infrastructures System**  
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Mission 4 “Education and Research” - Component 2: “From research to business” - Investment  
3.1: “Fund for the realisation of an integrated system of research and innovation infrastructures”



# Exercise: Comparative Analysis of Media Coverage on Microplastic Pollution in Italian Lakes

## **Objective:**

To analyze how different Italian generalist media outlets report on the issue of microplastic pollution in lakes, assessing the accuracy, tone, and potential impact on public perception.

## Step 1: Read each article carefully (15 minutes)

- [🌐 Progetto Ue: le microplastiche invadono i laghi italiani, cosmetici e buste fra i colpevoli](#)
- [🌐 In Centro Italia laghi pieni di microplastiche: verso un protocollo di analisi comune- Corriere.it](#)
- [🌐 Report Wwf: "Nel Mediterraneo la più alta concentrazione di microplastiche mai registrata. L'87% del mare è inquinato" - Il Fatto Quotidiano](#)

## Step 2: Comparative Analysis (20 minutes)

For each article, analyze the following aspects:

- **Tone and Language:**

- Is the language neutral, alarmistic or optimistic?
- Are technical terms explained or simplified?

- **Scientific Accuracy:**

- Are the sources of information credible?
- Are scientific studies or data referenced?
- Is there any mention of peer-reviewed research?

- **Visual Data Presentation:**

- Are there any charts, graphs, or images?
- How are these visuals used to support the narrative?

- **Audience Engagement:**

- Does the article include calls to action or suggestions for public involvement?
- Are there quotes from experts, local authorities, or affected individuals?

## Step 3: Deliverable (20 minutes)

In group, prepare a brief report (approximately 1500/2000 characters spaces included) summarizing your findings and reflections. This report should include:

- A comparison table highlighting the differences in tone, accuracy, and engagement across the articles.
- A discussion on the potential impact of these differences on public understanding and action.
- Recommendations for journalists on how to effectively communicate scientific issues to the public

Aspect	Rai News	Corriere della Sera	Il Fatto Quotidiano
<b>Tone</b>	Informative with slight urgency	Neutral and factual	Alarmist and urgent
<b>Language</b>	Accessible, uses some technical terms	Clear, balanced language	Emotive, uses strong adjectives
<b>Scientific Accuracy</b>	References EU project, quotes researchers	Cites data and sample analysis, local authority involvement	References WWF report and scientific data
<b>Visuals/Data</b>	Includes photos of lakes and plastic waste	Presents statistics, no visuals	Features infographics and charts
<b>Audience Engagement</b>	Encourages awareness, mentions main pollutant sources	Highlights need for protocol, local action	Calls for immediate policy changes and public action
<b>Expert Quotes</b>	Present	Present	Present

# Conclusions and Recommendations

The media coverage of microplastic pollution in Italian lakes reflects a range of journalistic styles, each with distinct impacts on public perception:

- Balanced reporting (like Rai News) can effectively inform while maintaining trust.
- Factual, data-driven articles (like Corriere della Sera) serve readers who seek depth and reliability.
- Alarmist coverage (like Il Fatto Quotidiano) can drive urgency but should be careful to avoid sensationalism.

## Recommendations for Journalists:

- Combine clear scientific explanations with accessible language.
- Use visuals effectively to complement the narrative.
- Include actionable advice to empower readers.
- Maintain a balanced tone that informs without inducing undue fear.

Tempo	Argomento	Attività/Contenuto
2 min	<b>Introduzione</b>	Presentazione del tema e importanza
3 min	<b>Cos'è la rappresentazione mediatica della scienza?</b>	Definizione, canali media, esempi
3 min	<b>Concetti di Framing e Agenda Setting</b>	Definizioni, importanza nella comunicazione scientifica
3 min	<b>Sfide nella comunicazione scientifica</b>	Semplificazione, sensazionalismo, fake news
2 min	<b>Impatto sulla percezione pubblica</b>	Fiducia nella scienza, comportamento sociale, politiche pubbliche
2 min	<b>Conclusioni e suggerimenti per migliorare</b>	Buone pratiche e riflessioni finali

# Media representation

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# Media representation of science

- 🌐 How science is communicated through **newspaper, TV, radio, websites, and social media.**
- 🌐 **It frames complex scientific topics** to make them accessible and engaging for the public.
- 🌐 This representation **influences** public understanding, attitudes, and trust toward science.

# Concepts of Agenda Setting and Framing setting

- 🌐 **Agenda Setting:** The media influence which topics the public perceives as important. For example, if they talk a lot about climate change, the public will consider it a priority.
- 🌐 **Framing:** The media not only choose the topics but present them with a certain interpretation or “frame” that influences how the public understands them. For example, a news story about climate can be framed as an “emergency” or as an “economic opportunity.”

**These mechanisms shape public perception and reactions.**

# Media Coverage of Science in Italian Generalist Media in the last years



## Topic

 **Climate Change & Environment**

 **Public Health & Pandemic**

 **Digital Tech & Artificial Intelligence**

 **Renewable Energy & Sustainability**

 **Space & Exploration**

 **Biotechnology & Genetics**

 **Pollution & Plastic**

## Key Themes

Impacts, solutions, extreme events, sustainability

Covid-19, vaccines, infectious diseases, mental health

Innovations, ethics, social impacts

Development of clean energy sources, energy efficiency

Space missions, astronomical discoveries

Genetic editing (CRISPR), advanced therapies

Microplastics, ecosystem protection

# Impact of Science in the Media on Public Perception

- **Main source of scientific knowledge** for most people (traditional & social media)
- **Builds narratives & images** that shape emotional, ethical, and social views
- **Affects trust and acceptance:**
  - Communication tone impacts confidence in science and scientists
  - Public judges both competence and alignment with public interest
- **Shapes attitudes & handles controversies:**
  - Influences views on vaccines, climate change, AI, etc.
  - Poor communication may cause anxiety, distrust, or false hopes
- **Can spread misinformation:**
  - Oversimplification or distortions lead to misunderstandings
- **May increase polarization:**
  - Emphasizing conflict or oversimplifying opposing views divides public opinion

# Bibliographical references

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🌐 Dunwoody, S. (2019), *Science journalism*, in A. Leßmöllmann, M. Dascal, T. Gloning (eds.), *Science communication*, De Gruyter Mouton, Berlin/Munich/Boston, pp. 417-438;

🌐 Pitrelli, N. (2021), *Il giornalismo scientifico*, Carocci, Roma.



# THANKS!

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