From Lab to News: Introduction to Science Journalism for Scientists

Strategies against Misinformation

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The Landscape of Environmental Disinformation

The Problem in Numbers:

- 68% of Italians get environmental information from social media (2024 data)
- 340% increase in climate denial content on digital platforms
- Impact on public perception of environmental policies

Types of Environmental Disinformation

- **Climate denial**: denial of climate change
- **Greenwashing**: manipulation of sustainability data
- **Cherry-picking**: selecting data out of the context
- **False balance**: equating scientific and denialist positions
- **Conspiracy theories**: conspiracy theories about “green lobbies”

Types of Environmental Disinformation

- Absence of peer-reviewed source
- Extreme generalizations («all scientists are wrong»)
- Emotional appeal without data
- Hidden conflicts of interest
- Suspicious timing (before events/votes)

Question: Raise your hand if in the last 6 months you have…

- Seen environmental disinformation on social media
- Publicly responded to incorrect content
- Ignored to avoid conflict
- Felt unprepared to respond

The three pillars of countering disinformation

1. Prebunking (Prevention)

Educate the public before disinformation spreads.
Explain how to recognize common manipulations.
Example: "Graphs can lie: here's how to recognize it".

2. Debunking (Correction)

Respond to already widespread disinformation.
Effective structure: recognition + correction + context.
Avoid amplifying the wrong message.

3. Inoculation (Immunization)

"Vaccinate" the public against future manipulations.
Explain the rhetorical techniques used by disinformers.
Example: "Why they always use these three tricks".

Researcher-Communicator Toolkit

Source Verification:

- Google Scholar for citation checks.
- Climate Feedback for climate fact-checking.
- Retraction Watch for retracted papers.
- Media Bias/Fact Check for evaluating news outlets.

Effective Communication Techniques:

- Sandwich technique: positive fact + correction + positive fact.
- Story bridge: connecting the correction to a broader narrative.
- Visual debunking: clear infographics and graphs.
- Emotional pivot: acknowledging legitimate concerns.

Platform-Specific Strategies:

- Twitter/X: threads with precise data and graphs.
- Facebook: longer posts with an empathetic tone.
- LinkedIn: professional approach with authoritative sources.

Practical Exercise: Strategic response

Common Scenario

- Viral Facebook post (2.3k shares) stating: "Electric cars pollute more than gasoline cars! Lithium batteries devastate the environment and electricity comes from coal power plants. It's all a trick to make us spend more!«
- Additional element: The post was shared by a friend of yours and already has 47 supportive comments in your family circle.

Collaborative Work

Instruction

- Each table must develop a complete response including:

  -Tone (how to approach without alienating the audience).
  -Key facts (possibly with sources).
  -Final message (constructive call-to-action).
  -Format (Facebook post, max 600 characters included spaces).

Template

- Opener: "I understand the concern about..."
- Fact-check: "Data shows that..."
- Context: "It's important to consider that..."
- Closing: "To learn more..."

Example Facebook Post

I completely understand your concerns [empathetic tone] about electric cars, especially with all the misinformation circulating. It's crucial to clarify! [debunking structure: recognition] Scientific lifecycle data show their overall environmental impact is lower than gasoline or diesel vehicles. While lithium batteries have an initial impact, recycling is progressing rapidly, and Europe's grid is decarbonizing with renewables. Electric cars produce no local emissions, improving urban air quality [debunking structure: correction/key facts]. Remember, this transition is an evolving process with constant progress [debunking structure: context]. For reliable data, consult Climate Feedback or Google Scholar. Let's spread true information! #ElectricCars #Sustainability [source verification and constructive call-to-action]

Bibliographical references

- "The Debunking Handbook 2020" (Lewandowsky et al.)
- Climate Communication Guidelines website
- Weekly newsletter "First Draft" on disinformation

THANKS!

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