

FRONTIERS

science journalism initiative

Day 2

3 March



Overview of the day

| Timings | | Contents |
|----------------------|--------|--|
| 09:30 – 11:00 | Part 1 | Artificial Intelligence in Science Journalism |
| 11:00 -11:30 | Part 2 | Hands-on exercise with Docalysis |
| <i>11:30 - 11:45</i> | | <i>Break</i> |
| 11:45 - 12:15 | Part 3 | Ethical and Legal perspectives on AI in Science Journalism |
| 12:15 - 13:00 | Part 4 | Good Practices in the Use of AI in Science Journalism |
| 13:00 - 13:30 | Part 5 | Final reflections and wrap up |

Part 1. AI in science journalism



Introductions and presentations

Quick round of presentations around the room

Discussion (1/2)

Sharing Experiences (15 minutes)

1. What AI tools do you currently use in your scientific journalism practice?
2. Any specific examples of how these tools have improved your workflow or output?
3. Have you encountered any challenges or limitations when using AI tools in your work?
4. Are there any particular AI tools or features that you find especially valuable or innovative?

Discussion (2/2)

Benefits and Challenges (15 minutes)

1. In what ways do AI tools enhance efficiency and productivity?
2. How do AI tools contribute to the accuracy and reliability of journalistic content?
3. What are some common challenges or limitations associated with the use of AI tools in scientific journalism?
4. How do you navigate ethical considerations when using AI tools in journalistic practice?
5. Do you foresee any potential risks or drawbacks associated with the increasing reliance on AI in the field of scientific journalism?

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AI tools for journalists



Before we begin...

A practical guide

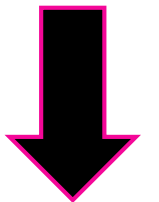
- This guide aims to enhance knowledge of AI tools that can assist in the practice of science journalism.
- While not exhaustive, the tools listed are those considered most useful.

<https://doi.org/10.5281/zenodo.12799958>

ARTIFICIAL INTELLIGENCE TOOLS FOR SCIENCE JOURNALISTS



Check it out



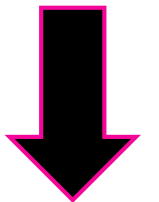
Methodology

1. In March 2024, a **webinar was held with science communication professionals** who shared the AI tools they used most frequently and found most beneficial in their daily work.
2. In April 2024, the SCS-UPF team, together with some science journalists from the FRONTIERS advisory board, selected from these tools those deemed **most relevant for science journalists**.
3. During the pilot course of the FRONTIERS project held in Barcelona in June 2024, this selection of tools was tested.

ARTIFICIAL INTELLIGENCE TOOLS FOR SCIENCE JOURNALISTS



Check it out



General AI tools for Science Journalism





N.º 01 – Pinpoint

Pinpoint is a research tool that helps journalists and academics consult and analyze large collections of documents. By using Pinpoint, you can upload and search through hundreds of thousands of documents, images, emails, handwritten notes, and audio files related to specific words, phrases, locations, organizations, and people.

- **Access:** Anyone with a valid Google account has read-only access to all public collections in Pinpoint. To create or modify a collection, you must have full access to Pinpoint. Journalists and academic researchers can apply for full access to Pinpoint.
- **Cost:** Google does not charge any fees for using Pinpoint, whether for read-only access or full access.
- **Link:** <https://journaliststudio.google.com/pinpoint>



N.º 02 – Docalysis

Docalysis is an AI-powered platform that answers any question you have about your documents. Simply upload a PDF, TXT, CSV, or DOCX file and let Docalysis analyze it for you. Then have a conversation with Docalysis to get answers to your questions. Docalysis is a great tool for financial analysts, lawyers, accountants, scientists, and anyone else who needs to analyze documents.

- Access: You need to create an account to access Docalysis
- Cost: Docalysis is free to use, with additional features available on a paid plan.
- Link: <https://docalysis.com/>



N.º 03 – Consensus

An academic search engine powered by artificial intelligence, Consensus is grounded in scientific peer-reviewed research and highlights the most relevant documents. It synthesizes information at both the topic and document levels, ensuring that all insights are linked to real research. The sources used in Consensus come from the Semantic Scholar database.

- Access: You need to create an account to access Consensus
- Cost: Consensus is free to use, with additional features available on a paid plan. Students are eligible for a 40% discount.
- Similar tools: Perplexity or Phind
- Link: <https://consensus.app/>



N.º 04 – TransKriptor

To convert speech into text, TransKriptor transcribes interviews, meetings, lectures, and other spoken content into accurate text documents. It supports multiple languages and offers features such as automated punctuation, speaker identification, and in-platform editing of transcriptions, making it a comprehensive solution for managing and refining spoken content.

- Access: You need to create an account to access TransKriptor
- Cost: Paid application with monthly or annual subscription options
- Similar tools: Whisper, Google Cloud Speech-to-text, Trint
- Link: <https://transkriptor.com/>



N.º 05 – **DeepL**

Popular for translating documents, emails, websites, and other content, DeepL facilitates communication between speakers of different languages and helps in understanding texts in foreign languages.

- Access: You need to create an account to access DeepL
- Cost: Paid application with monthly or annual subscription options
- Link: <https://www.deepl.com/write>

AI tools for podcasts and social networks



Podcastle AI

Similar tools: Elevenlabs.io, Amazon Polly, Google Cloud Text-to-Speech

- AI-powered audio podcast creation platform
- Allows conversion from text to voice in seconds
- Enables transcription from audio to text just as quickly

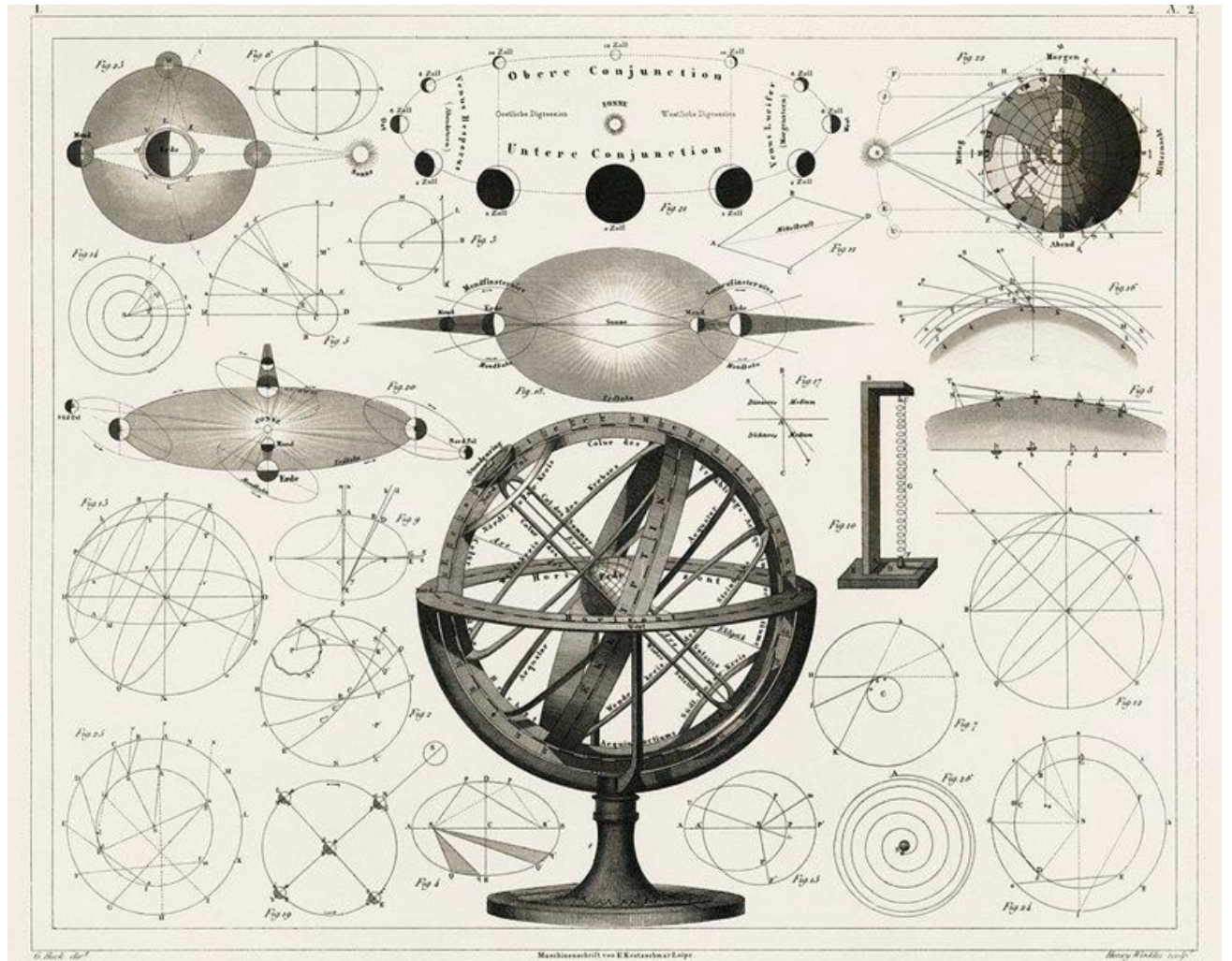
<https://podcastle.ai/>



Whimsical diagrams

- Allows creation and sharing of diagrams, flowcharts, wireframes etc.
- Explains and visualises concepts with flowcharts, mindmaps and sequence diagrams.
- Designed to be simple, fast, and collaborative
- Facilitates team collaboration
- Helps focus on ideas and feedback

<https://chat.openai.com/g/g-vl2kaiM9N-whimsical-diagrams>



Fliki

- Automatically generates videos from text
- Handles the entire editing and production process
- Completes video creation in a matter of minutes

<https://fliki.ai/>



AI tools to organize work flow



Merlin

- Software for planning, scheduling, and project management
- Assists teams in organizing and monitoring tasks, resources, and timelines
- Used for projects of various types
- Features include Gantt chart creation, resource allocation, project progress tracking, and report generation

<https://www.getmerlin.in/es/login>



Notion

- Multi -platform task organizer
- Available for mobiles, tablets, and computers
- Productivity application for managing work and personal life planning

<https://www.notion.so/>




Other sources



**JournalismAI is a global initiative
that empowers news
organisations to use artificial
intelligence responsibly.**

- Newsletter
- Resources
- Training opportunities
- Events
- Directory of AI & Journalism Consultants - Trainers

<https://www.journalismai.info/>

A background graphic consisting of a network of interconnected nodes and lines, rendered in a light teal color against a white background. The nodes are small squares, and the lines are thin, creating a complex web-like structure.

**For artificial intelligence
to work for everyone, a
greater diversity of
people must be involved**

RESOURCES

EVENTS

Better Images of AI

Race and AI Toolkit

Living with AI

Podcast

Quiz

Join Us

- Resources
- Events
- Podcast

<https://weandai.org/>

Group activity (20 min)

- Form smaller groups
- Each group chooses one of the tools:
 - Pinpoint
 - Consensus
 - * *not Docalysis, we will explore it later*
- Explore the tool following the worksheet, its benefits and challenges, practical applications and limitations.

Group activity (20 min)

General discussion

- **Experience** : Have you used this tool before?
- **Alternatives** : Are you aware of any other tools similar to this one?
- **Utility** : Do you believe this tool could be beneficial for your work?
- **Risks** : What potential risks do you see in using this tool?

Part 2. Hands -on exercise



Hands -on exercise

- Adapted from workshop “AI as a tool to help in science communication”, by Bienvenido León and Ignacio López -Goñi (2024).

- Download the paper:

Laske, C., Müller, S., Preische, O., Ruschil, V., Munk, M. H. J., Honold, I., Peter, S., Schoppmeier, U., & Willmann, M. (2022). **Signature of Alzheimer’s disease in intestinal microbiome: Results from the ALZBiOM study**. *Frontiers in Neuroscience*, 16. <https://doi.org/10.3389/fnins.2022.792996>

- We will use **Docalysis** to work on the same paper, in smaller groups.

To-do before the break

1. Download the paper
2. Sign up or Login to Docalysis

Original workshop (in Spanish):
<https://microbioblog.es/ia-como-herramienta-de-ayuda-para-la-comunicacion-de-la-ciencia>

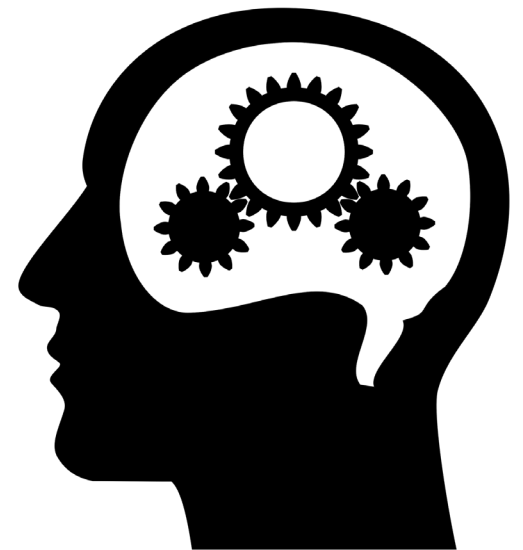
Coffee break (15 m in)



| Part | Suggested prompt | |
|-----------------------------------|---|--|
| Part A. Scientific quality | <p>You are an expert researcher on Alzheimer's disease and you want to know the scientific quality of the article attached. Please answer the following questions about the article in detail:</p> <ul style="list-style-type: none"> • What are the main conclusions of the study? • What are the limitations of the study? | |
| Part B. Detailed summary | <p>Option 1. You are a scientist with 10+ years of experience in research, specialising in Alzheimer's. Using the attached article:</p> | <p>Option 2. You are a journalist with 10+ years of experience in a prestigious newspaper, specialising in medical news. Using the attached article:</p> |
| | <ul style="list-style-type: none"> • Make a summary as detailed and extensive as possible of the following parts of this attached article: introduction, material and methods, results and discussion. • Highlight the most important contributions and limitations of this research. • Add a summary of the images and tables in the article. • From the bibliography: highlight the five most important references. | |
| Part C. Impact | <p>You are a scientific advisor at a hospital. A colleague sends you the attached article and asks you the following questions. Please respond:</p> <ul style="list-style-type: none"> • How is this study different from previous studies? • What types of impact does this research have? | |

Hands -on exercise

- Reflections after the exercise
- Unexpected results
- Usefulness of the tool
- ...



Part 3. Ethical and Legal perspectives on AI in Science Journalism



Part 4. Good Practices in the Use of AI in Science Journalism



Introduction

Generative artificial intelligence's recent expansion demonstrates:

- its potential
- the need to study its development ¹

In science communication, generative AI offers new opportunities but also generates new challenges ².

- How do science communicators use AI?
- How can science communicators objectively inform about AI to society?
- How can science communicators promote a responsible development of AI?

To answer these questions, we initiated a participatory process to create a guide on good practices on science communication and AI.

1. Buriak et al, 2023

2. Schäfer, 2023

Methodology (1/2)

1. **Kick off** : participatory workshop at a science communication conference in 2023
 - The 10 speakers of the session put forward 2 -3 principles each
 - The 30 science communicators in the room discussed and categorised the principles
 - At the end of the workshop, 16 participants signed up as volunteers to continue working on the development of the document.



Methodology (2/2)

2. The SCS-UPF team analysed and integrated the workshop results into a first proposal of principles.
 - a. The selection of 26 principles was simplified to a list of 16.
3. This proposal was evaluated by the volunteers via an online survey.
 - a. Principles were rephrased based on survey results into a reduced list of 10.
4. Results were integrated into a second proposal, which was widely and openly distributed among Spanish -speaking science communicators.
 - a. A total of 125 science communicators responded to the survey.

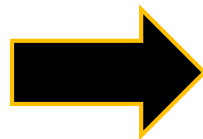
Results (1/3)

The principles are divided into two categories:

- AI in my professional activity
- My professional activity when communicating about AI

** The title of the document was also decided collaboratively*

Check it out



<https://zenodo.org/records/11393656>

Good practice
principles
on science
communication
and artificial
intelligence

An initiative of



With the collaboration of



and many more organisations and science communication professionals.

Results (2/3)

AI in my professional activity

1. Use AI in a responsible way, prioritizing truthfulness and quality.
2. Aim to not reproduce or increase biases or stereotypes of any kind (including gender and sex biases, age, functional diversity, language, ethnicity, religion, etc.) when using AI.
3. Prioritize AI tools that incorporate transparency and non-discrimination principles.
4. Educate myself in how to make good use of AI in science communication.
5. Transparently declare the use of AI tools.
6. Promote that the media establish guides or style books on how to use AI.

Results (3/3)

*My professional activity
when communicating AI*

7. Responsibly report on AI development, without exaggerations, and objectively explaining potential benefits and risks.
8. Promote and defend an AI that is transparent (for example, one that indicates its sources).
9. Promote, through my science communication practice, that AI companies and regulatory bodies act responsibly.
10. Report on how AI models are trained.

Conclusions

- Although they may seem ambitious, the principles are useful in providing a **benchmark** for science communicators in their use of AI.
- This process highlights the **need for participatory approaches** in developing meaningful guidelines.
- **Open access** : the principles are available in the open repository Zenodo, where people can also voluntarily adhere to them.
- **Accessibility** : the document is available in 7 languages: Spanish, English, Catalan, French, Basque, Italian and Galician.

Open discussion

- Go to Mentimeter:
 - [menti.com / user code: 1132 7402](https://www.menti.com/user-code/11327402)

<https://www.menti.com/alv77uxcos8e>



- Evaluate the statements:
 - which ones are more important?
 - which ones could be left out?

AI in my professional activity

My professional activity when communicating AI

1. Use AI in a responsible way, prioritizing truthfulness and quality.
2. Aim to not reproduce or increase biases or stereotypes of any kind (including gender and sex biases, age, functional diversity, language, ethnicity, religion, etc.) when using AI.
3. Prioritize AI tools that incorporate transparency and non-discrimination principles.
4. Educate myself in how to make good use of AI in science communication.
5. Transparently declare the use of AI tools.
6. Promote that the media establish guides or style books on how to use AI.
7. Responsibly report on AI development, without exaggerations, and objectively explaining potential benefits and risks.
8. Promote and defend an AI that is transparent (for example, one that indicates its sources).
9. Promote, through my science communication practice, that AI companies and regulatory bodies act responsibly.
10. Report on how AI models are trained.

Open discussion

- Mentimeter results
 - Any statements missing?
- Some open questions to consider:
 - What measures can be taken to prioritize **truthfulness** when using AI?
 - What are some **common biases** that AI can reproduce or amplify?
 - Why is it important to **transparently** declare the use of AI tools in our work?
 - How can we effectively **communicate our use of AI** to our audience?
 - How can we **advocate** for responsible AI development and regulation?
 - **Why** is it important to report on how AI models are **trained** ?

Part 5. Wrap up



Final comments

- **Online training session, 24 March 2026, 11:00 -14:00h**
 - You should have completed at least one interview with a frontier scientist by then
- **Evaluation forms for the training activities**

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