



From Lab to News: Introduction to Science Journalism for Scientists

Practical Exercise: Writing a science news article.

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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”



Goals

- 🌐 To learn the typical structure of a science news article in journalism.
- 🌐 To understand the **key characteristics of journalistic writing** for science news.
- 🌐 To get prepared for a **writing exercise**

Two formats

LONG FORM

VS

**SHORT FORM
(NEWS)**

Take a (quick) look at one article and try to answer these questions:

Is it focused on a specific piece of news or they address a more general topic?

What about the title? Is it a bit general or more focused?

How is the writing style?

What about the first sentences? How does the article start?

HOW DOES NEWS ABOUT A PIECE OF RESEARCH USUALLY COME UP?

HOW DOES NEWS ABOUT A PIECE OF RESEARCH COME UP?

**A SCIENTIFIC
PUBLICATION**



A PRESS RELEASE

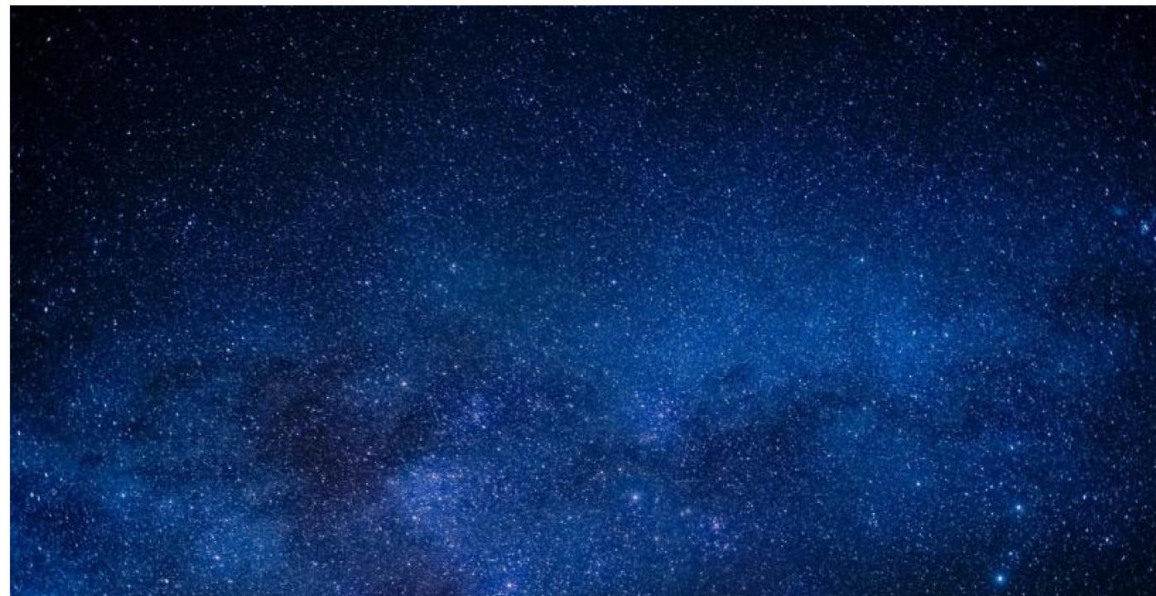


THE MASS MEDIA

PRESS RELEASE

There are 40 billion billions of Black Holes in the Universe!

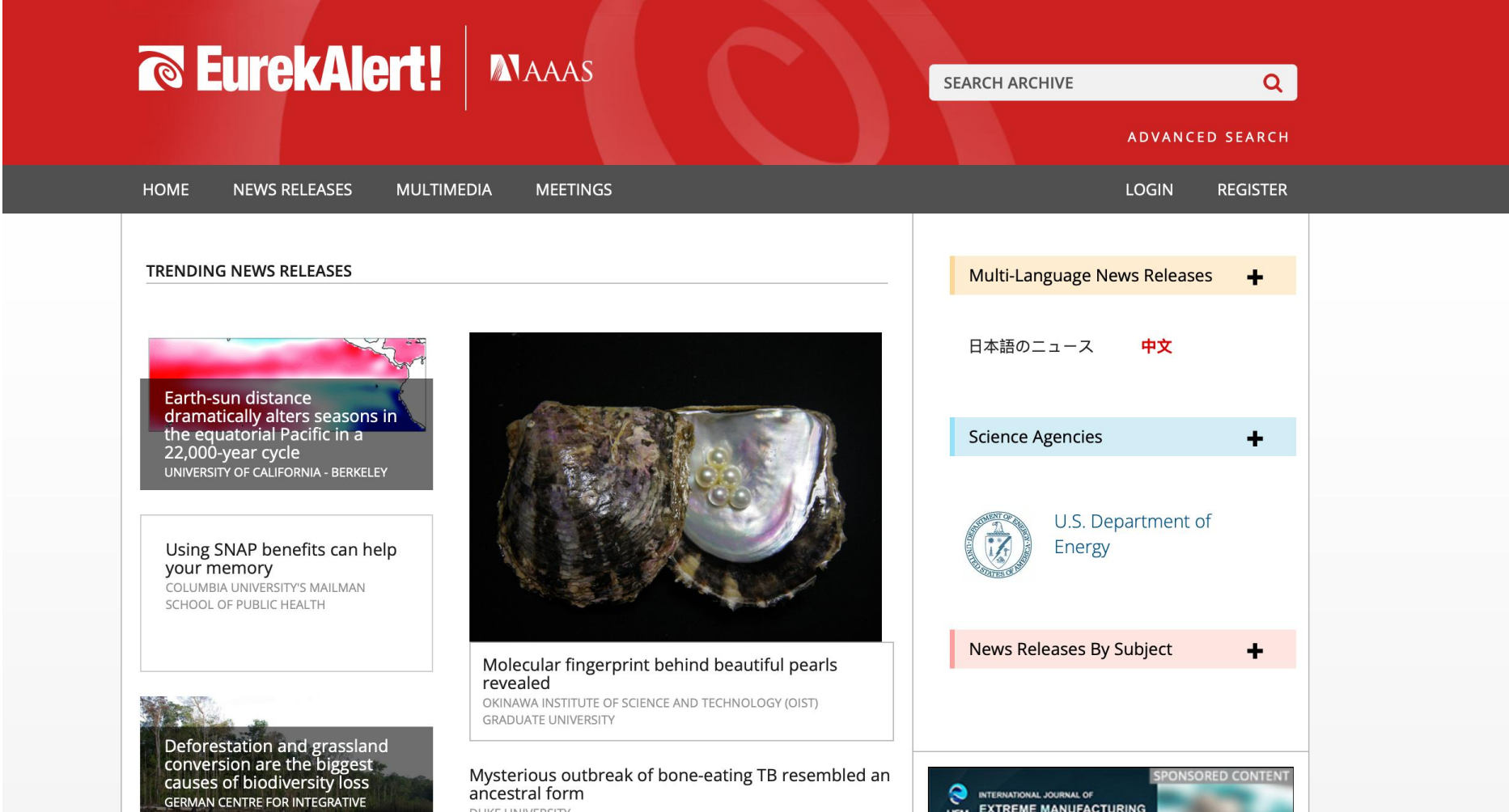
With a new computational approach, SISSA researchers have been able to make the fascinating calculation. Moreover, according to their work, around 1% of the overall ordinary (baryonic) matter is locked up in stellar mass black holes. Their results have just been published in the prestigious 'The Astrophysical Journal'.



THE PRESS RELEASE

**IT'S THE RESULT OF A
VERY INTENSE DIALOGUE
BETWEEN THE PRESS
OFFICER AND THE
SCIENTIST(S)**

The press release



The screenshot shows the EurekAlert! website interface. At the top, there is a red header with the EurekAlert! logo on the left and the AAAS logo in the center. To the right of the AAAS logo is a search bar labeled "SEARCH ARCHIVE" with a magnifying glass icon. Below the search bar is a link for "ADVANCED SEARCH". A dark grey navigation bar contains links for "HOME", "NEWS RELEASES", "MULTIMEDIA", "MEETINGS", "LOGIN", and "REGISTER".

The main content area is divided into several sections:

- TRENDING NEWS RELEASES**: A section with a horizontal line, containing three news release cards:
 - Earth-sun distance dramatically alters seasons in the equatorial Pacific in a 22,000-year cycle** by UNIVERSITY OF CALIFORNIA - BERKELEY. The card features a colorful map of the Pacific Ocean.
 - Using SNAP benefits can help your memory** by COLUMBIA UNIVERSITY'S MAILMAN SCHOOL OF PUBLIC HEALTH. The card has a plain white background.
 - Deforestation and grassland conversion are the biggest causes of biodiversity loss** by GERMAN CENTRE FOR INTEGRATIVE. The card features a photograph of a forest.
- Molecular fingerprint behind beautiful pearls revealed** by OKINAWA INSTITUTE OF SCIENCE AND TECHNOLOGY (OIST) GRADUATE UNIVERSITY. The card features a photograph of an open oyster shell with several pearls inside.
- Mysterious outbreak of bone-eating TB resembled an ancestral form** by DUKE UNIVERSITY. The card has a plain white background.

On the right side of the page, there are several utility sections:

- Multi-Language News Releases** with a plus sign icon. Below it are links for "日本語のニュース" and "中文".
- Science Agencies** with a plus sign icon. Below it is the logo for the U.S. Department of Energy.
- News Releases By Subject** with a plus sign icon.
- A **SPONSORED CONTENT** banner for the "INTERNATIONAL JOURNAL OF EXTREME MANUFACTURING".

The press release

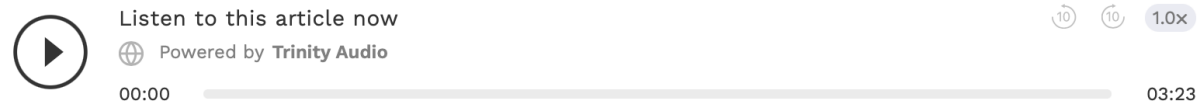
Fri, Nov 11, 2022 **Newsweek** LOGIN **SUBSCRIBE FOR \$1 >**

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TECH & SCIENCE

Universe Has 40 Quintillion Black Holes Says Study That Sheds Light on Their Origins

BY **ED BROWNE** ON 1/24/22 AT 11:18 AM EST



Astronomers have come up with a new estimate for the total number of black holes in the universe, and the number is mind-bogglingly large—40 quintillion. That's 4 followed by 19 zeros.

The count, performed by researchers from various institutions across Italy and the U.K., involved complex computations involving the formation rate and mass of stars as well

NEWS VALUES

NOVELTY

PROXIMITY

EMOTION

STORIES/PEOPLE

IMPACT

TIMELINESS

CONFLICTS

CONTEXT

NUMBERS
UNIVERSE
HEALTH
ANIMALS
TECHNOLOGY

MIND AND BRAIN
STATEMENTS
MONEY
CLIMATE CHANGE
AWARDS

WHAT ARE THE NEWS VALUES OF THE PIECE OF NEWS YOU CHOSE?

**WHY IS THE SHORT FORM A GOOD
EXERCISE TO DO (EVEN THOUGH YOU
ARE NOT A JOURNALIST)?**

WHY IS THE SHORT FORM A GOOD EXERCISE TO DO (EVEN THOUGH YOU ARE NOT A JOURNALIST)?

“Tell me the title”

A general rule

The shorter the text, the more focused the title and first sentence should be.

LONG FORM: in-depth analysis
SHORT FORM: straight to the point

(For scientific papers this rule is not valid)

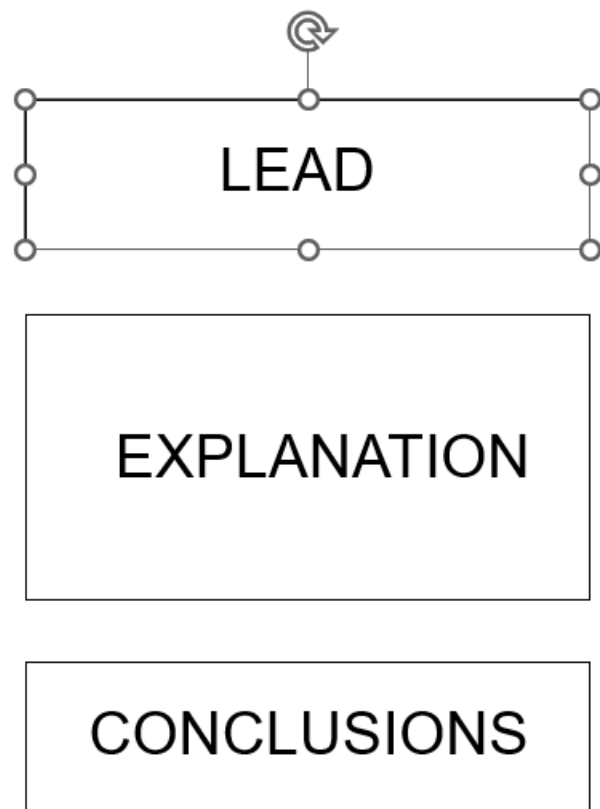
It's the first (and perhaps the only) thing people read

- It must be interesting BUT clear (especially online)
- It must anticipate the topic, without being misleading or too vague
- Keywords
- Neither too long nor too short
- Avoid, if possible, phrasing it as a question

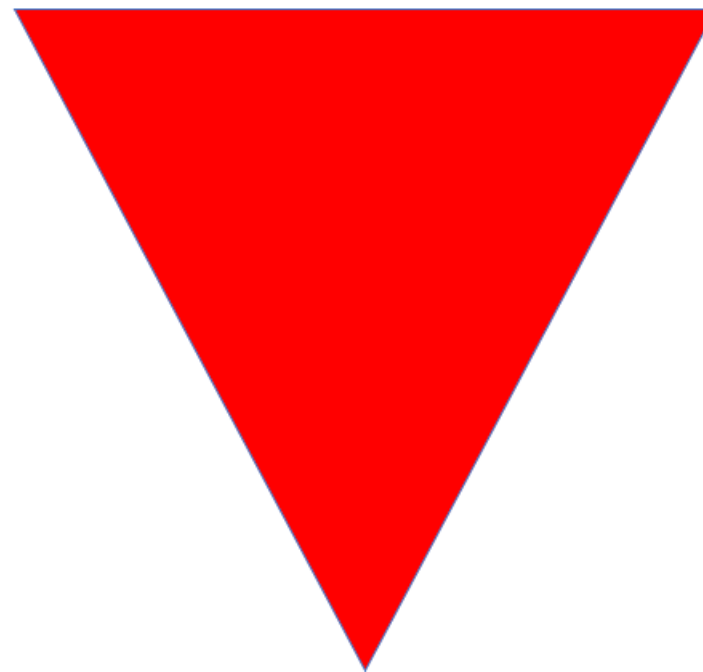
It should illustrate the content more fully, providing some additional information and serving as a further hook for the reader.

SHORT FORMAT

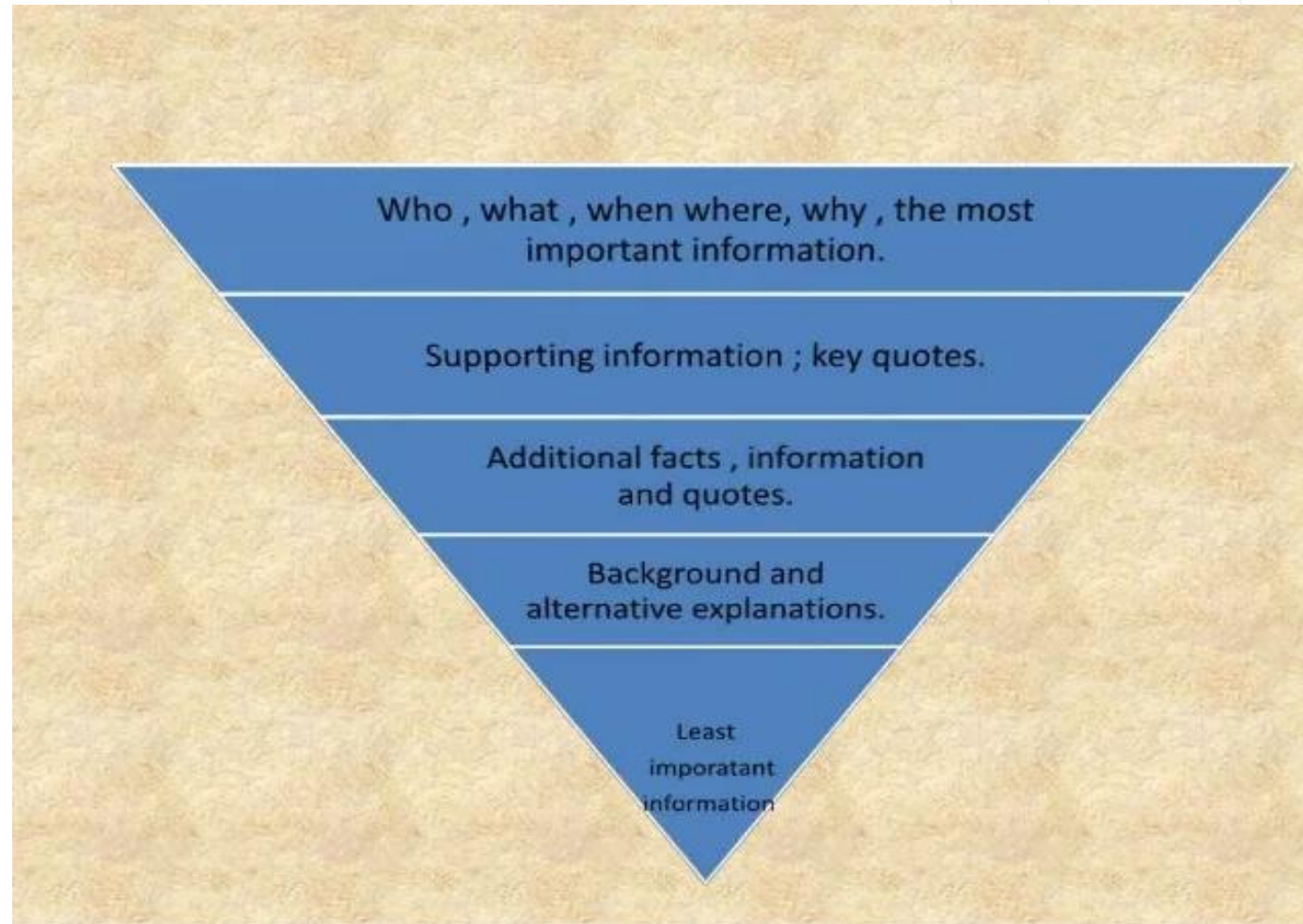
STRUTTURA



Gerarchia dei contenuti



The Typical Structure of a Science News Article: The Inverted Pyramid



Section	Purpose	General Description	Applied Example (Microplastics in Drinking Water)
1. Lead (Top)	Present the main finding and its significance	Highlight the key takeaway and its real-world impact	<i>A new peer-reviewed study has found that 80% of global tap water samples contain microplastics, raising fresh concerns over human exposure and health risks.</i>
2. Key Details	Summarize the study’s methodology and findings	Briefly explain how the study was conducted and what it discovered	<i>Researchers analyzed 259 samples across five continents. The most common particles were fibers from synthetic clothing and packaging materials.</i>
3. Quotes from Authors or Experts	Add expert interpretation of the findings	Include direct quotes from researchers or independent scientists	<i>“This is the first global-scale assessment of microplastics in tap water,” said Dr. Miriam Hayes, lead author from the University of Toronto. “It suggests widespread contamination that we still don’t fully understand.”</i>
4. Broader Context	Explain relevance to public, policy, or science	Connect to existing research, public health concerns, or regulations	<i>Previous studies have documented microplastics in oceans and seafood, but their presence in tap water underscores potential exposure through daily consumption.</i>
5. Reactions and Responses	Report on scientific, policy, or public responses	Government, NGO, or scientific body reactions; possible solutions	<i>The World Health Organization has called for further research but said current levels don't yet justify public panic. Environmental groups urge regulation of plastic waste.</i>
6. Background Info (Base)	Offer supplementary information for curious readers	Explain technical terms, research limitations, or journal information	<i>The study was published in the journal Nature Water and used infrared spectroscopy to identify plastic particles. The smallest particles (<1 micron) couldn’t be detected, meaning actual levels may be higher.</i>

THE LEAD

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FIRST PARAGRAPH

Informative

Self-sufficient

THE REST OF THE TEXT

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OTHER PARAGRAPHS

Give more information

Data/explanation/details

Declining importance...

THE CONCLUSION

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OTHER PARAGRAPHS

Future perspectives

Possible application

Additional information...

A final quote...

READING IS SKIMMING AND SCANNING

EXPLORATION

IMPATIENCE/SPEED

SELECTION

DISCONTINUITY

MECHANICS OF WRITING

SOME GENERAL RULES

- **AVOID JARGON** (or explain)
- **MAKE IT SIMPLE** (in content and style)
- **SELECT THE STUFF**

- **USE EXAMPLES AND METAPHORS**
- **DON'T DWELL ON TECHNICAL ASPECTS**
- **DON'T BE POMPOUS**

The short format

- **SHORTEN YOUR SENTENCES**
- **DON'T DWELL ON SECONDARY CLOSES**
- **DIVIDE THE TEXT INTO PARAGRAPHS**

Key Writing Characteristics in Science News

- 🌐 **Clear and simplicity:** Use simple, understandable language. Avoid overly complex technical terms. Use concrete examples, analogies, or metaphors when appropriate.
- 🌐 **Accuracy and precision:** Ensure information is correct and reliable. For a researcher, this means presenting your finding accurately for a lay audience.
- 🌐 **Brevity:** News articles are typically short (e.g. 700 to 2500/3000 characters).
- 🌐 **Engagement:** while pure news focuses on fact, making the connection to **daily life** or highlighting **human aspects** related to science can make it more engaging for a broader audience.

“We notice language when it’s awkward and may blame ourselves for not being smart enough to figure it out.

When the writing is good, we notice the ideas and the data”

Summary

- 🌐 **Recap:** A science news article aims to inform the public concisely about **newsworthy** scientific findings.
- 🌐 It typically follows an **inverted pyramid structure**, putting the most important information first.
- 🌐 Key characteristics of the writing include **clarity, accuracy, and brevity.**

Bibliographical references

🌐 Angler M. W. (2017), *Science journalism. An Introduction*, Routledge, London and New York;

🌐 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.

EXERCISE

Split into couples

Go to the website www.eurekalert.org and choose one of the press-releases you can find there. Read it and highlight the most important information there reported.

Write a possible title and subtitle of the article.

EXERCISE

Split into couples

Go to the website www.eurekalert.org and choose one of the press-releases you can find there. Read it and highlight the most important information there reported.

Write a short article (1500 characters spaces included) for the science section of an online news website, like Science NEws.

Le politiche migratorie restrittive non funzionano

2000 migranti costretti a cambiare rotta verso una morte più sicura. Lo afferma uno studio della scuola IMT Alti Studi di Lucca.

Gli eventi climatici estremi lasciano il segno sui bambini ancor prima che nascano

Un nuovo studio del CUNY Graduate Center dimostra che uragani e ondate di calore modificano lo sviluppo della zona del cervello che regola le emozioni durante la fase prenatale\

Gravidanze: gli eventi climatici estremi influenzano lo sviluppo neurologico dei bambini

Gravidanze ed eventi climatici estremi: a rischio lo sviluppo neurologico dei bambini

Un nuovo studio del CUNY Graduate Center dimostra che uragani e ondate di calore modificano lo sviluppo della zona del cervello che regola le emozioni durante la fase prenatale.



THANKS!

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