BASICS AND DEFINITION OF SCIENCE COMMUNICATION

CREATIVE RESEARCH AND SCIENCE COMMUNICATION

26/02/26

What is SCIENCE EDUCATION?

https://answergarden.ch/4426268

WHAT IS SCIENCE EDUCATION?

Type your answer here...

Submit

40 characters remaining

What is SCIENCE COMMUNICATION?

https://answergarden.ch/4426270

WHAT IS SCIENCE COMMUNICATION?

Type your answer here...

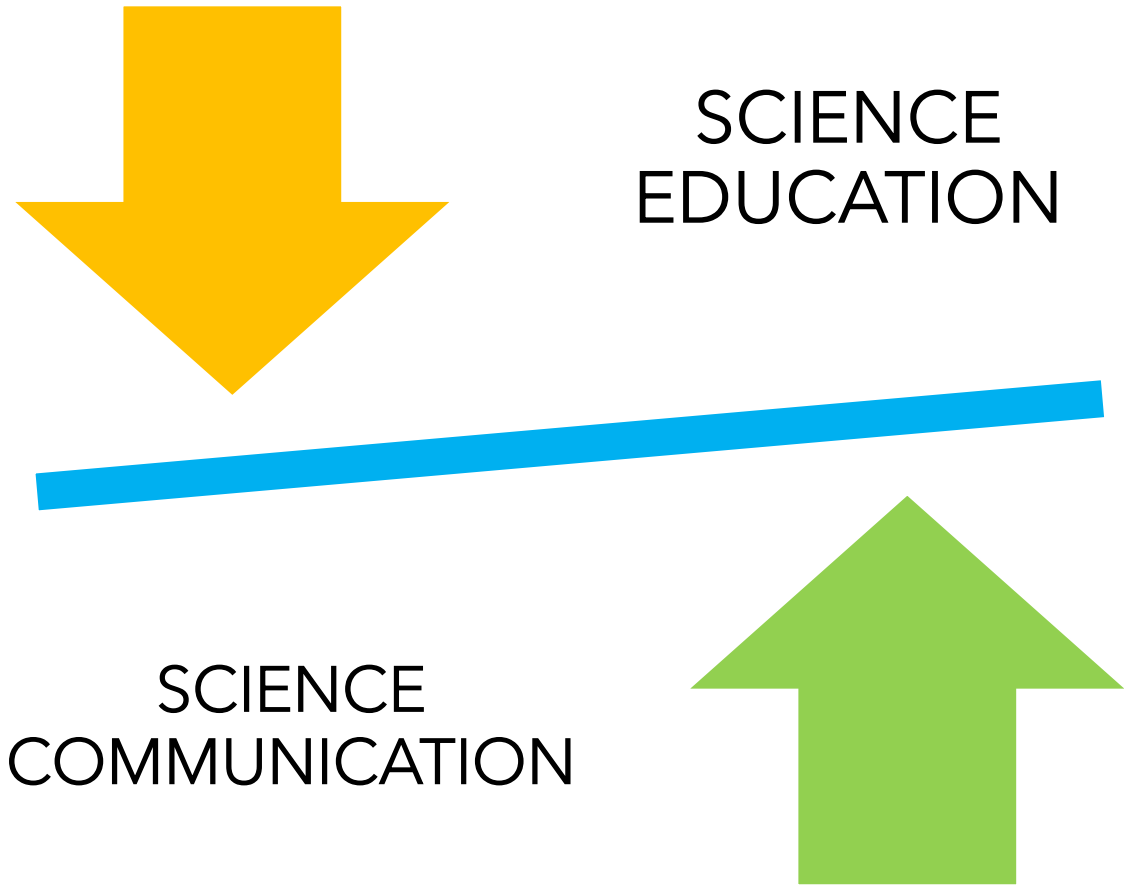
Submit

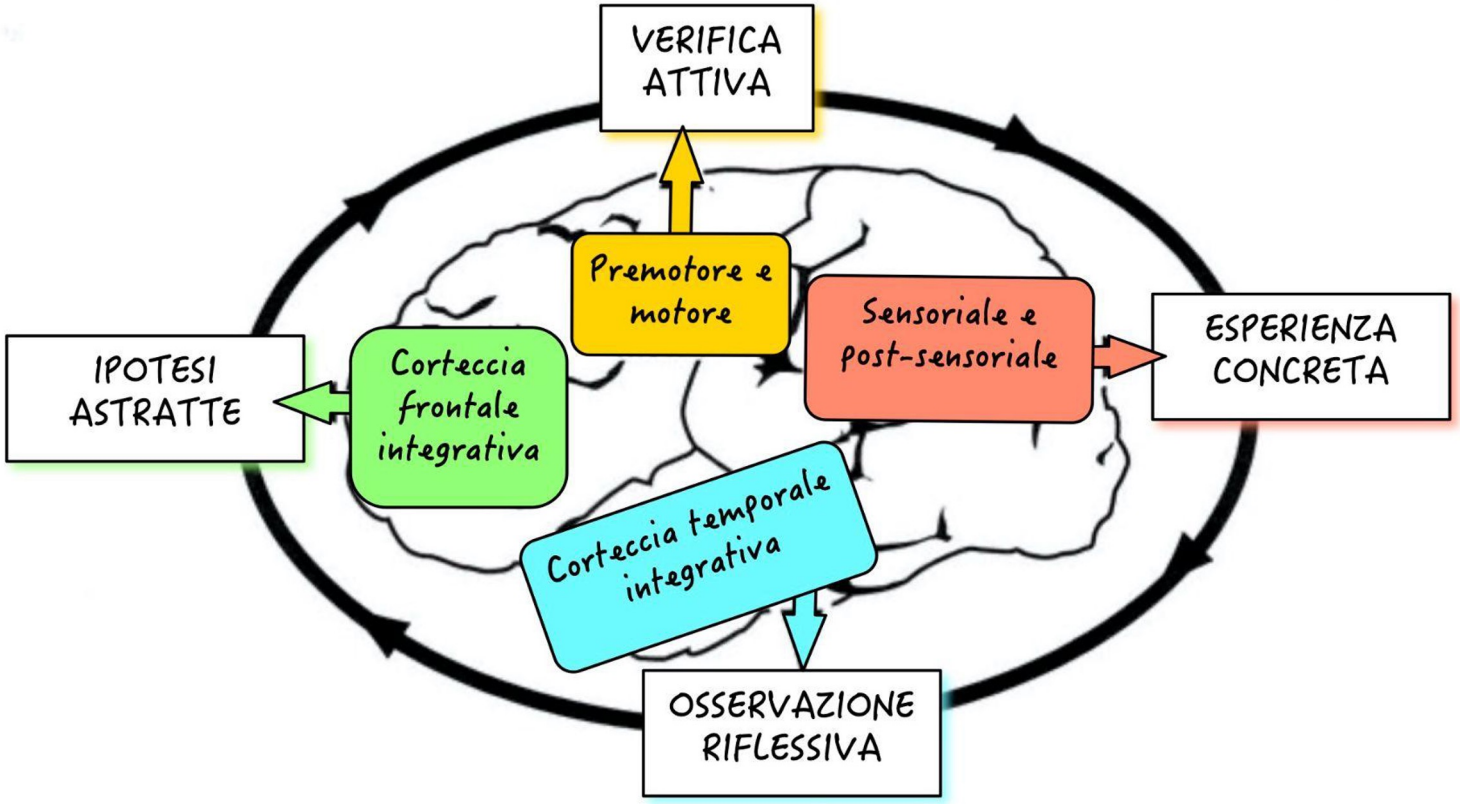
40 characters remaining

Work in pairs and try to compare and contrast:

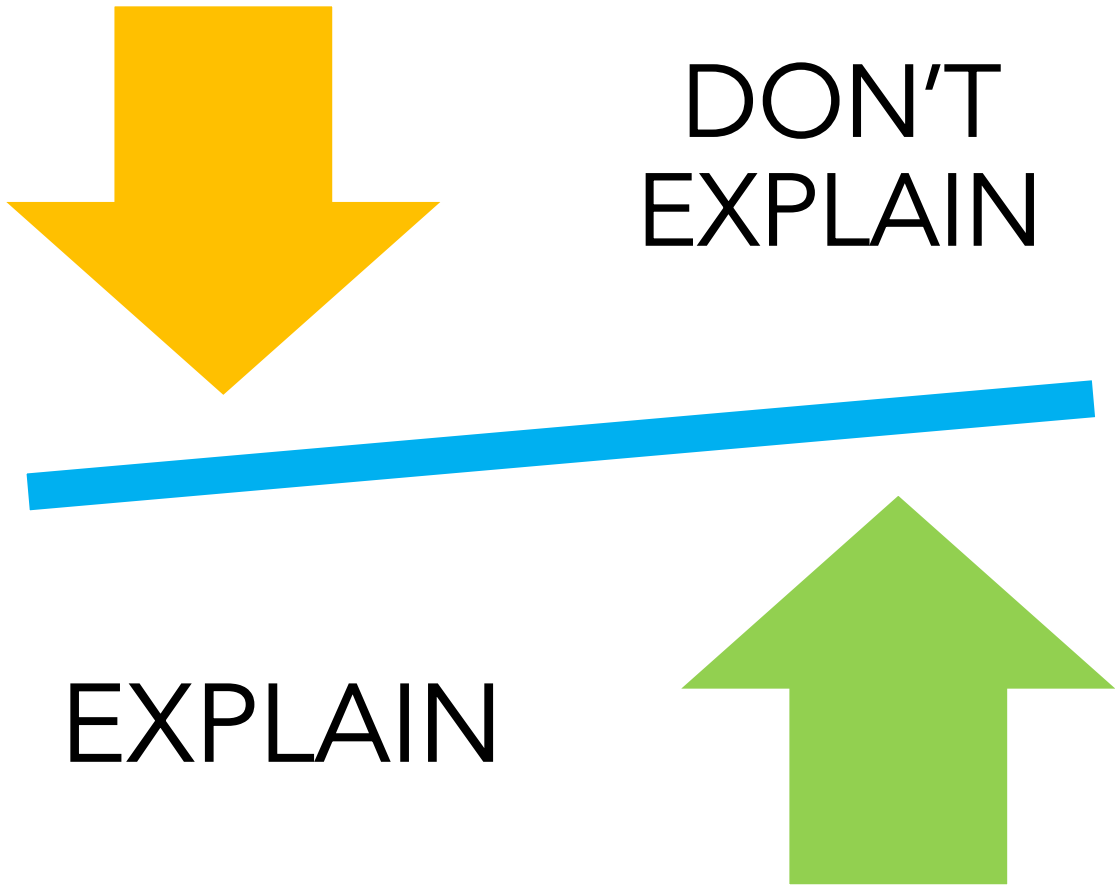
SCIENCE EDUCATION

SCIENCE COMMUNICATION


SCIENCE
EDUCATION
SCIENCE
COMMUNICATION

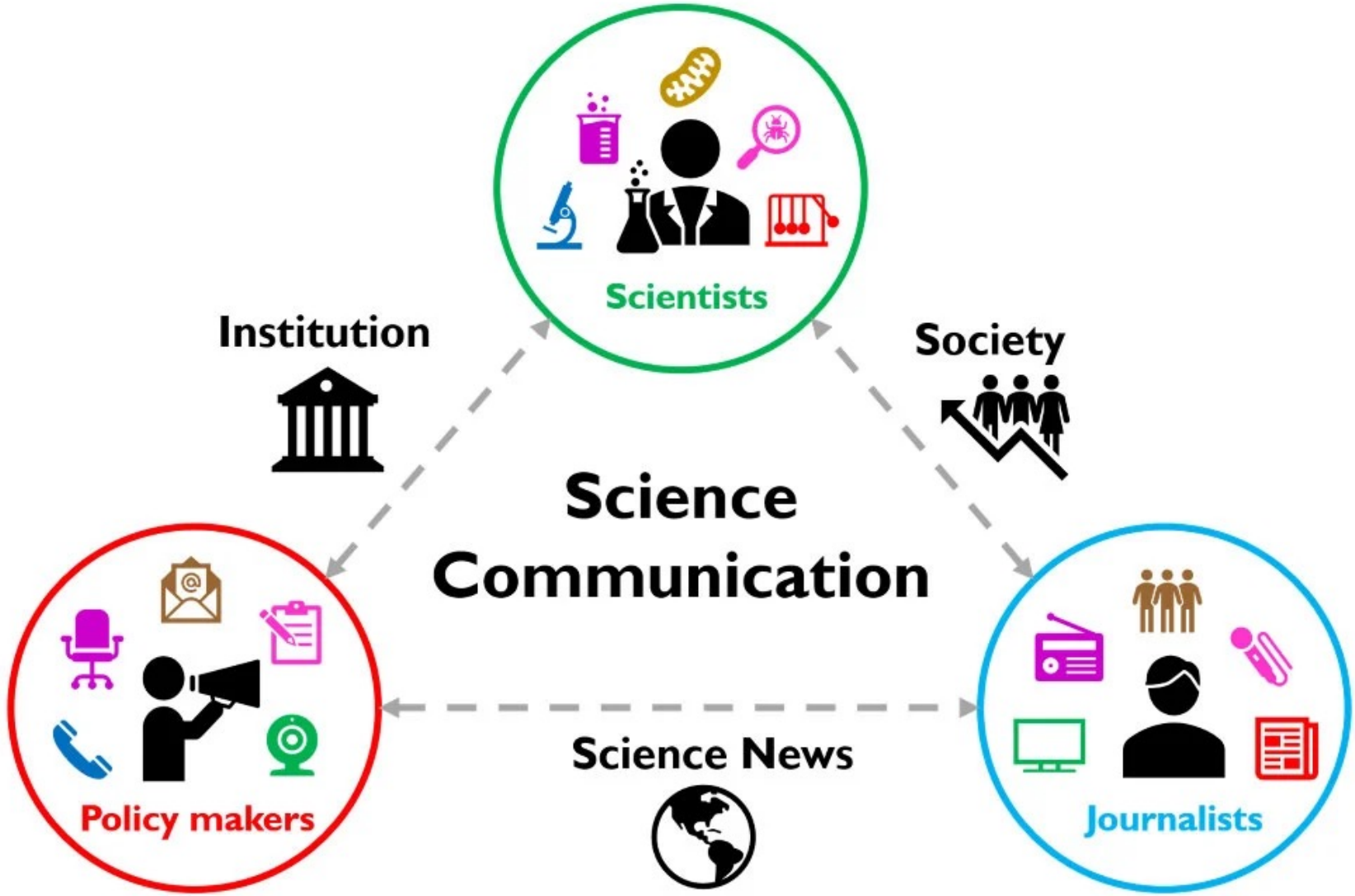

VERIFICA ATTIVA
Premotore e motore
Sensoriale e post-sensoriale
ESPERIENZA CONCRETA
IPOTESI ASTRATTE
Corteccia frontale integrativa
Corteccia temporale integrativa
OSSERVAZIONE RIFLESSIVA

(Zull, 2002)


DON'T
EXPLAIN
EXPLAIN

Read the following story and focus on what happened to this young researcher

https://crosstalk.cell.com/blog/bringing-a-scientists-purpose-to-life


Scientists
Institution
Society
Science
Communication
Policy makers
Science News
Journalists

What is Science Communication?

- Science communication (SciCom) is the use of skills, media, activities, and dialogue to engage the public with science.
- It aims to create Awareness, Enjoyment, Interest, Opinion-forming, and Understanding (AEIOU model).
- It is distinct from Public Awareness of Science (PAS), Public Understanding of Science (PUS), and Scientific Literacy (SL).

Burns, T. W., O'Connor, D. J., & Stocklmayer, S. M. (2003). Science Communication: A Contemporary Definition. *Public Understanding of Science*, *12*(2), 183-202. https://doi.org/10.1177/09636625030122004

The AEIOU Model of Science Communication

- Awareness: Making people conscious of scientific topics.
- Enjoyment: Encouraging positive affective responses to science.
- Interest: Motivating voluntary engagement with science.
- Opinion-forming: Shaping and changing public attitudes toward science.
- Understanding: Promoting knowledge of scientific concepts, processes, and societal impacts.

Wu, L. Y., Wu, S. P., & Chang, C.-Y. (2019). Merging Science Education into Communication: Developing and Validating a Scale for Science Edu-Communication Utilizing Awareness, Enjoyment, Interest, Opinion formation, and Understanding Dimensions (SEC-AEIOU). *Sustainability*, *11*(17), 4551. https://doi.org/10.3390/su11174551

What is Public Awareness of Science (PAS)?

Public awareness of science (PAwS) is everything relating to the awareness, attitudes, behaviors, opinions, and activities that comprise the relations between the general public or lay society as a whole to scientific knowledge and organization.

What is Public Understanding of Science (PUS)?

All encompassing term that refers to a relationship between the general public and the scientific community regarding scientific knowledge, literacy, awareness, attitudes, and behaviors (Juan et al. 2014).

What is Scientific Literacy?

- Your author name
- Write informative titles and abstracts
- Multi-authored outputs
- Cross-disciplinary research
- Build communication and dissemination plans
- Put any output to the open web

https://issuu.com/amymollett/docs/phds_preparing_for_impact_final

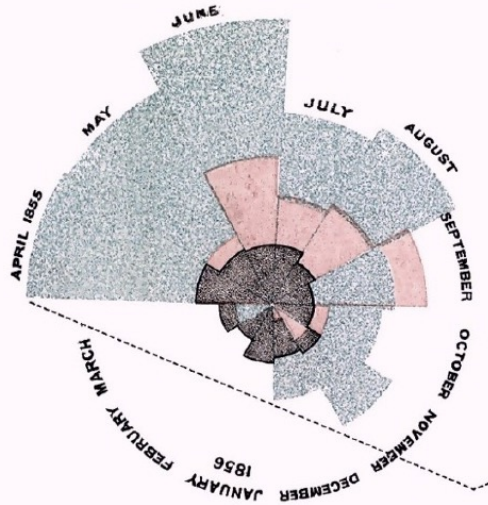
2.

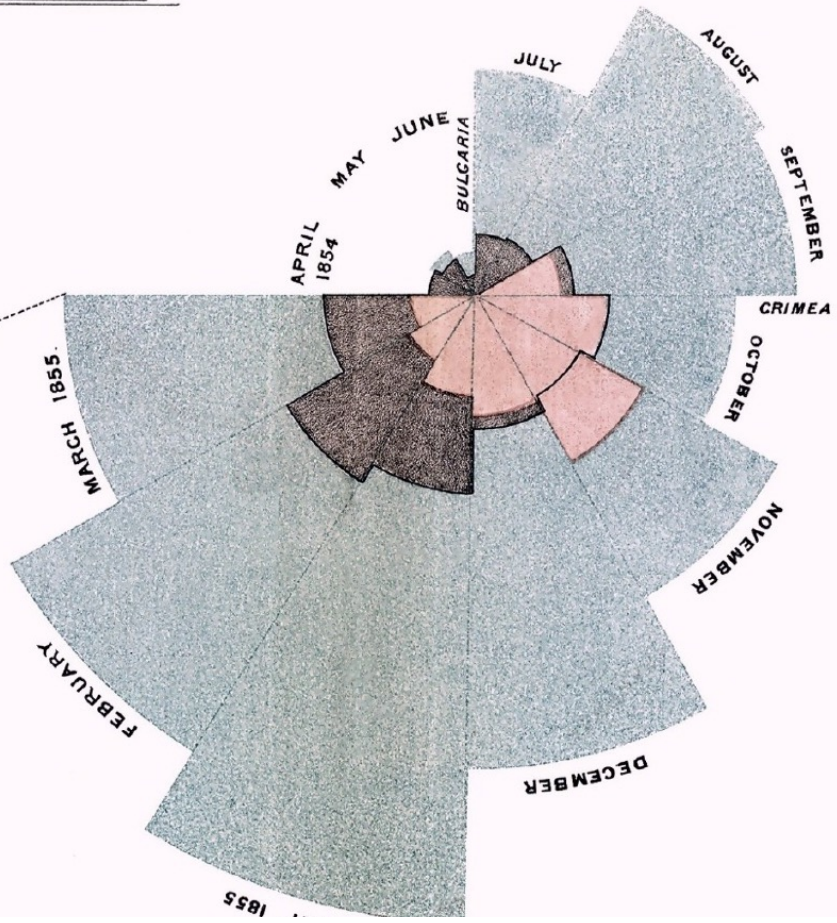
APRIL 1855 to MARCH 1856.

IN THE ARMY IN THE EAST.

1.

APRIL 1854 to MARCH 1855.





The Areas of the blue, red, & black wedges are each measured from the centre as the common vertex.

The blue wedges measured from the centre of the circle represent area for area the deaths from Preventible or Mitigable Zymotic diseases; the red wedges measured from the centre the deaths from wounds, & the black wedges measured from the centre the deaths from all other causes.

The black line across the red triangle in Nov.r 1854 marks the boundary of the deaths from all other causes during the month.

In October 1854, & April 1855, the black area coincides with the red; in January & February 1856 the blue coincides with the black.

Geographie der Pflanzen in den Tropen-Ländern;

AXIOMATA
SIVE
LEGES MOTUS

Lex. I.

Corpus omne perſeverare in ſtatu ſuo quieſcendi vel movendi uniformiter in directum, niſi quatenus a viribus impreſſis cogitur ſtatum illum mutare.

PRojectilia perſeverant in motibus ſuis niſi quatenus a reſiſtentia aeris retardantur & vi gravitatis impelluntur deorſum. Trochus, cujus partes cohærendo perpetuo retrahunt ſeſe a motibus rectilineis, non ceſſat rotari niſi quatenus ab aere retardatur. Majora autem Planetarum & Cometarum corpora motus ſuos & progreſſivos & circulares in ſpatiis minus reſiſtentibus factos conſervant diutius.

Lex. II.

Mutationem motus proportionalem eſſe vi motrici impreſſæ, & fieri ſecundum lineam rectam qua vis illa imprimitur.

Si vis aliqua motum quemvis generet, dupla duplum, tripla triplum generabit, ſive ſimul & ſemel, ſive gradatim & ſucceſſive impreſſa fuerit. Et hic motus quoniam in eandem ſemper plagam cum vi generatrice determinatur, ſi corpus antea movebatur, mo-

Lex. III.

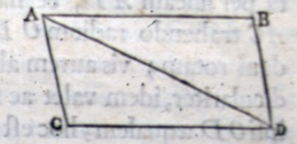
Actioni contrariam ſemper & æqualem eſſe reactionem: ſive corporum duorum actiones in ſe mutuo ſemper eſſe æquales & in partes contrarias dirigi.

Quicquid premit vel trahit alterum, tantundem ab eo premitur vel trahitur. Siquis lapidem digito premit, premitur & hujus digitus a lapide. Si equus lapidem funi allegatum trahit, retrahetur etiam & equus æqualiter in lapidem: nam funis utrinq; diſtentus eodem relaxandi ſe conatu urgebit Equum verſus lapidem, ac lapidem verſus equum, tantumq; impediet progreſſum unius quantum promovet progreſſum alterius. Si corpus aliquod in corpus aliud impingens, motum ejus vi ſua quomodocunq: mutaverit, idem quoque viciſſim in motu proprio eandem mutationem in partem contrariam vi alterius (ob æqualitatem preſſionis mutuæ) ſubibit. His actionibus æquales ſiunt mutationes non velocitatum ſed motuum, (ſcilicet in corporibus non aliunde impeditis:) Mutationes enim velocitatum, in contrarias itidem partes factæ, quia motus æqualiter mutantur, ſunt corporibus reciproce proportionales.

Corol. I.

Corpus viribus conjunctis diagonalem parallelogrammi eodem tempore deſcribere, quo latera ſeparatis.

Si corpus dato tempore, vi ſola *M*, ferretur ab *A* ad *B*, & vi ſola *N*, ab *A* ad *C*, compleatur parallelogrammum *ABDC*, & vi utraq; feretur id eodem tempore ab *A* ad *D*. Nam quoniam vis *N* agit ſecundum lineam *AC* ipſi *BD* parallelam, hæc vis nihil mutabit velocitatem acce-



Key Participants in Science Communication

- Scientists: Share research with different audiences.
- Mediators: Journalists, educators, museum staff, etc.
- Decision-makers: Policymakers and industry leaders.
- General public: Citizens, students, and non-experts.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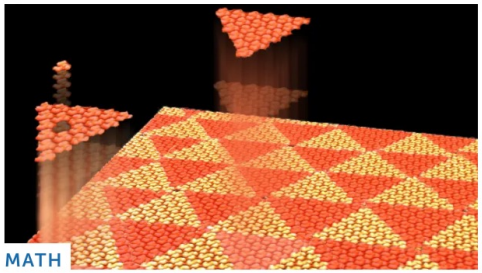
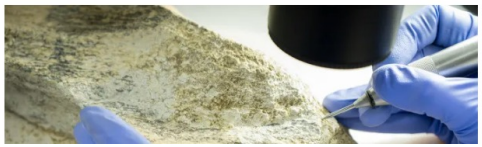


MATH

The einstein tile rocked mathematics. Meet its molecular cousin

By Zack Savitsky • 17 hours ago



ASTRONOMY

The Milky Way's constantly bubbl

By Lisa Grossman • 21 ho

ANIMALS

Crickets and flie quiet evolutiona

By Jake Buehler • March

ASTRONOMY

Citizen scientist discoveries with telescope netwo

By Hannah Richter • Marc

https://www.sciencenews.org/

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JOURNAL OF SCIENCE COMMUNICATION

Latest publications

Mar 04, 2025

Book Review

Reviewed book: "The Science Media Interface: on the Relation Between Internal and External Science Communication"

by Laura Moorhead

The Science Media Interface explores how scientists and their institutions orient their research and publication criteria and processes towards those of journalists and media organizations as a way to gain public attention. The editors present an impressive range of methods, from bibliometrics, an adaptation of the Delphi method, ethnography, mixed-methods analysis, and the path analysis method.

Volume 24 – Issue 01 – 2025

JCOM metrics

2023 CiteScore: 3.4
2023 Impact Factor: 2.0 (Q2)

Call for papers

Announcing a special issue on "Transitions in Science Communication: Continuity and Change"

Review article

Stakeholder-engaged research: a multidisciplinary historical analysis

Abstract

The involvement of stakeholders in research – from design, production and communication to use – is recognised as essential to producing impactful research. However, approaches to involving stakeholders in research vary greatly between different fields. This article conducts a multidisciplinary historical analysis of stakeholder-engaged research to offer an integrated perspective on engagement practices across disciplines. It identifies common influences, objectives, trends and challenges, proposing frameworks to support interdisciplinary analysis and understanding. The analysis identifies interconnected approaches that could benefit from mutual learning and exchange. Approaches emerging from sociopolitical movements orient around objectives of empowerment and emancipation, those responding to complexity tend to focus on producing better research that solves societal problems, while accountability-driven approaches

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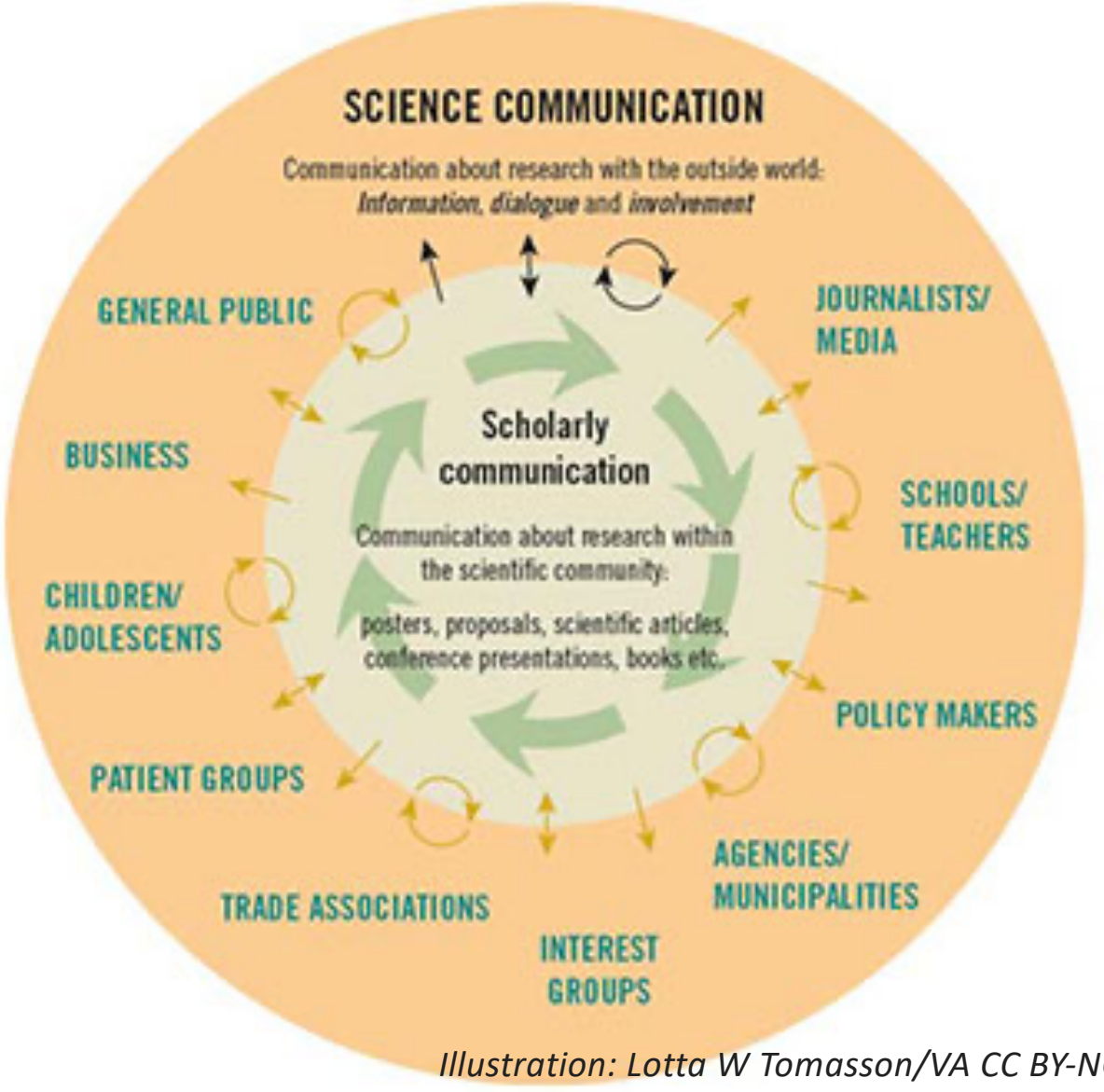
IDENTIFIERS

DOI: https://doi.org/10.14324/RFA.08.1.06

WHAT IS SCIENCE COMMUNICATION?



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The Importance of Science Communication

- Builds a scientific culture that integrates science into society.
- Helps address misinformation and builds trust.
- Encourages participation in scientific decision-making.
- Ensures science remains relevant and accessible.

Models of Science Communication

- Deficit Model: Assumes the public lacks scientific knowledge and needs education.
- Contextual Model: Recognizes public engagement as a two-way process.
- Mountain-Climbing Analogy: Science communication helps individuals 'climb' toward scientific literacy.

Science Communication in Practice

- Formal Approaches: Science education, training programs.
- Informal Approaches: Museums, TV programs, podcasts.
- Dialogue-Based Approaches: Public discussions, citizen science.