

Introduction to Science Communication

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Key concepts, goals, audiences, and best practices

1. What Is Science Communication?

Definition	Core Idea
Science communication is the practice of sharing scientific information, methods, and values with non-expert audiences (and sometimes with peers) using accessible language and engaging formats.	It bridges the gap between research and society, fostering understanding, trust, and informed decision-making.

2. Why It Matters

- Informed Public Decisions** – Health, environment, technology policies rely on accurate scientific input.
 - Democratic Participation** – Citizens can weigh evidence when voting or advocating for policies.
 - Funding & Support** – Public appreciation can influence government and private investment in research.
 - Countering Misinformation** – Proactive communication reduces the spread of myths and “fake news.”
 - Scientific Literacy** – Improves critical thinking and the ability to evaluate claims.
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3. Main Audiences

Audience	Characteristics	Communication Priorities
General Public	Diverse education levels, varied interests	Relevance to everyday life, clear narratives, minimal jargon
Policy Makers & Regulators	Time-pressed, need actionable insights	Concise briefs, evidence-based recommendations, risk assessments

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Audience	Characteristics	Communication Priorities
Educators & Students	Teaching/learning context	Accurate content, pedagogical tools, curriculum alignment
Media Professionals	Need story angles, quotes, visuals	Press releases, media kits, ready-to-use graphics
Industry & Stakeholders	Business goals, product development	Technical depth, market implications, regulatory context
Scientific Community	Peer researchers	Precision, data sharing, reproducibility details (often via scholarly channels)

4. Core Principles (The “7 Cs”)

C	Explanation
Clarity	Use plain language; define technical terms the first time they appear.
Context	Explain why the research matters—link to real-world problems.
Credibility	Cite sources, disclose uncertainties, and be transparent about limitations.
Conciseness	Keep messages brief; avoid unnecessary details that dilute the main point.
Connection	Tailor tone and examples to the audience’s values and experiences.
Creativity	Employ storytelling, analogies, visuals, or interactive formats to capture attention.
Consistency	Align messaging across platforms and over time to build trust.

5. Communication Formats & Channels

Format	Strengths	Typical Use
Press releases	Fast, media-ready, concise	Announcing major findings, funding awards
Blog posts / Op-eds	Narrative freedom, SEO benefits	Explaining implications, personal perspectives
Social media (Twitter, Instagram, TikTok)	Broad reach, real-time interaction	Quick updates, visual snippets, Q&A sessions

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Format	Strengths	Typical Use
Videos & Podcasts	High engagement, multimodal learning	Interviews, lab tours, explainer series
Infographics & Data visualizations	Complex data simplified	Policy briefs, public health alerts
Public talks / Science cafés	Direct dialogue, community building	Local outreach, citizen science events
Educational kits & curricula	Structured learning, long-term impact	Schools, museums, outreach programs

6. Storytelling Techniques

1. **Hook** – Start with a surprising fact, anecdote, or question.
2. **Problem** – Present the real-world issue the research addresses.

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