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RETHINK brief for policy makers:

Improving digital science communication in Europe

The European Commission has worked strategically with bringing science and society closer together for decades, recognizing that engagement of citizens and stakeholders in European research projects is crucial to the communication of science and the achievement of this goal.

Photo by John-Mark Smith on Unsplash

But communicating science is not a simple task in a complex, digital environment where the public opinion in Europe to a large extend is formed. We all digest and use information according to our mindsets and beliefs, and we do not just absorb the information that is presented to us. This phenomenon – sensemaking – is a major challenge in the digital communication 'ecosystem' if we want to use scientific knowledge in decision making processes, and if we want all actors in society to participate in discussions about science.

The RETHINK project has addressed this problem, and the latest insights from the project show that we still have some way to go, as the dialogue between science and society is both limited and lacking truly open and reflexive science-society interfaces. For this reason, the RETHINK project recommends that policymakers at both EU, national and local level:

1. **Initiate and support** schemes and programs that train all types of science communicators in reflexive science communication.

2. **Support** organizations working with dialogue-based science communication.

3. **Support** research in:
   Dialogue-based and reflexive science communication in and outside universities.
   Quality and efficacy of science communication on social media.

4. **Initiate and support** events and platforms (online and in the physical world), where researchers and science communicators can enter dialogues with new, underserved audiences (and establish collaborations between institutions).

5. **Initiate and support** umbrella organizations building networks and collecting and sharing knowledge on dialogue-based science communication.

6. **Implement** incentives for scientist to integrate dialogue-based communication into their work, including requirements for dialogue-based communication in grant proposals, rewards or formal credits for communicating science, and revision of evaluation metrics in funding programs.

7. **Coordinate** the efforts made to engage the public in and communicate science by funding agencies, governments, higher education institutions and outreach organizations to explore differences and synergies in activities.

Research findings:

"The will is there but the conditions are not"

Throughout its project period, RETHINK has investigated:

1. The landscape of communicators in terms of who communicates what to whom, how, why and on which conditions,
2. The dynamics of how people make sense of complex science-related problems, and
3. Science communication training and quality.

This research shows that the **science communication ecosystem is very complex and fragmented,** including multiple types of actors of which a majority tends to perform one-way communication, **wanting to inform audiences already interested in science about facts.** (See Annex I: different roles of science communicators)

Such tendency creates a barrier for creating a productive relationship between science and society, as s**ensemaking practices are heavily dependent on people's personal situations**, emotions, a priori beliefs and trust in the source.

This means that making sense of science-related issues is not merely a matter of getting the facts straight but is dependent on which personal contexts these facts are put into, how they relate to what people already know, and what the relationship between the communicator and the audience is. The importance of context also makes it **difficult to identify generalizable quality criteria for science communication**, which might be one of the reasons why there is great variety in how academic programs are structured and professional science communicators are trained.

Having said this, the project also shows that the ways in which people make sense of science are dynamic and constantly renewed, which in combination with the diverse and vast science communication landscape provides **a potential for creating constructive dialogues and interactions between science and society.**

Moreover, **many scientists do feel an intrinsic motivation and sense of responsibility to engage in science communication** and want to democratize science. But they find it **hard to reach out to new audiences** and often communicate to people with pre-existing interest in science, which reproduces inequalities in access to knowledge. Also, the **potential of new media settings is not always exploited**, even though most science communicators regularly use mainstream social media.

Scientists and science communicators in general often **lack time and resources for communication activities** and experience **a sense of disconnect with their audiences**, which is demotivating as well as bad and non-constructive interactions online causing them to limit their engagement in dialogues. So, despite attempts from science communicators to create productive interactions between science and society, willingness, and good intensions, **they face a lot of structural barriers for doing so**.

Therefore, RETHINK encourages all actors to take a close look at the proposed recommendations, continuing the efforts to ensure the best match between the achievements of science and the needs, values, and aspirations of society.

Visit the RETHINK project website for more information on the research results:
rethinkscicomm.eu

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