reTHINK #scicomm

RETHINK brief for universities and research institutions:

Improving science communication in research institutions

It is important for universities and research institutions to have a continuous dialogue with society to ensure that the scientific knowledge and achievements play an active role in shaping the futures for all of us. But communicating science is not a simple task in a complex, digital environment. 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.

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The RETHINK project has addressed this problem, and the latest insight from the project shows that we still have a way to go. There is a tendency for science communicators to do one-way communication, wanting to inform the public and not necessary with the aim of creating actual conversations between researchers and the public. Also, scientists and science communicators often lack time and resources for communication activities and experience a sense of disconnect with their audiences.

When it comes to training programs at universities, the academic science communication educations differ regarding the extent to which the programs are adapted to the changing communication environment characterized by digitalization, and some science communication programs convey a more traditional perception of science communication as a one-way process in which the public is informed.
For these reasons, the RETHINK project recommends that universities, research institutions and other organizations in academia:

1. Offer courses, workshops, and concrete guidelines for researchers on reflexive science communication (sensemaking practices) and digital communication.

2. Engage in dialogue with different audiences to explore their perspectives so that the science communication is tailored to their life situations.

3. Change the incentives structures for scientist, including requirements for dialogue-based communication in grant proposals, rewards, or formal credits for communicating science.

4. Support researchers doing science communication by acknowledging public engagement efforts in policy and strategic documents and by making it an explicit evaluation criterion in recruitment and promotion situations.

5. Support further research on quality and efficacy of science communication on digital media.

6. Incorporate science communication in the curriculum at all educational levels (Bsc, Msc and PhD).

7. Establish dedicated units within research institutions and on regional/national level helping researchers to do dialogue-based and involving science communication as well as digital outreach.

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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