

## Unlocking the Potential of Science Communication and Public Engagement in India

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The SciComm ThinkLabs launched last year culminated in an [insightful webinar on 9 August 2024](#) marking the launch of its final report and resources. The webinar hosted by FAST India convened a panel of experts and stakeholders to deliberate on the evolving landscape of science communication and public engagement in India. The session provided a platform for in-depth discussion on the findings and recommendations of the SciComm ThinkLabs report, with a focus on identifying pathways to unlock the full potential of science communication in the country.

### Challenges in Science Communication

The discussion opened with an acknowledgement of the significant progress made in science communication in India and current challenges that impede its development. Despite the increasing attention that science communication and public engagement are receiving, there remain several critical gaps. The absence of suitable forums for strategic dialogue among professionals and stakeholders was identified as a major hurdle. Without these forums, it is difficult to foster the kind of focused discussions necessary for advancing the field.

Additionally, the lack of a clear roadmap with defined roles and benchmarks was highlighted as a significant barrier. Science communication in India often lacks direction, leaving practitioners uncertain about how to measure success or progress. Moreover, there is a glaring deficiency in Indian literature and evidence-based research on science communication and public engagement. This lack of localised resources hampers the ability to develop strategies that are culturally and contextually relevant.

### The SciComm ThinkLabs initiative

In response to these challenges, the SciComm ThinkLabs initiative was conceived as a community-led effort aimed at addressing some of these gaps through research and analysis. Over the course of six to seven months, 16 science communication and engagement professionals collaborated to co-create strategies, frameworks, and actionable recommendations. The initiative sought to not only examine the current landscape of science communication in India but also to identify pathways for capacity building and strengthening.

The working groups within SciComm ThinkLabs focused on four key themes: the landscape of science communication practices, institutional science communication, capacity building, and

the relationship between science and media. Each of these areas was explored in some depth, leading to the development of preliminary insights and recommendations.

## Key findings and insights

During the webinar, the findings of the SciComm ThinkLabs report were discussed by representatives from the four working groups: **Siddharth Kankaria, Dr. Somdatta Karak, Dr. Siuli Mitra and Dr. Debdutta Paul.**

The first working group examined the landscape of science communication practices and emphasised the need for more extensive documentation and understanding of regional, vernacular, and community-based science communication efforts. The group's work also highlighted the importance of impact assessment, noting that many science communicators do not currently evaluate the effectiveness of their activities, yet there is a strong interest in learning how to do so.

The second working group focused on institutional science communication and the diverse roles that science communicators play within research and academic institutions. The group found that while institutions are beginning to recognise the value of science communication, there is still a lack of empowerment and support for science communicators. This includes a need for clearer job roles, better integration with other institutional functions, and opportunities for professional development. The group developed a 'SciComm readiness tool' that can be used by institutions and funders to assess the commitment and capacity for science communication.

The third working group addressed capacity building in science communication. They developed a modular and customisable training framework that can be adapted to various audiences, durations, and needs. The group emphasised the importance of contextually relevant training, drawing on both global practices and India's unique experiences in science communication.

Finally, the fourth working group explored the relationship between science and media, identifying logistical barriers that hinder effective collaboration between scientists and journalists. The group created a framework for running a science media residency program, which would allow journalists to spend time at scientific institutions, gaining direct access to scientists and research. This, they argued, could help bridge the gap and build trust and appreciation between the scientific community and the media, leading to more accurate and impactful science reporting.

When asked about how the science communication and public engagement communities can become bigger than the sum of their parts to advance these fields in the country, the panellists had the following to say:

*“I believe we need to shift the focus from institution-centric science communication to community-centric approaches. We should also start seeing science communication as a site for knowledge production, not just knowledge sharing. This means blurring the boundaries between scientists and science communicators and encouraging more active research and experimentation in the field.” Kankaria*

*“We also need to step outside our own circles and engage with the people who stand to benefit from our work. Mentorship is key here—those of us who have experience in the field should actively mentor the next generation of science communicators.” Mitra*

*“We need to be more inclusive and reach out to a wider range of voices and perspectives, not just within our existing networks. This will help us build a more robust and diverse science communication ecosystem.” Paul*

*“We need to remember that science communication in India has its own unique history and context. We should build on that history while also creating new frameworks that are relevant to today’s challenges.” Karak*

## Unlocking Science Communication

The webinar also featured a panel discussion on what it would take to unlock the potential of science communication in India. Given the diversity of terms and meanings used, the session began with an exploration of what science communication means to each of the panellists, revealing the diversity of perspectives that shape the field.

**Prof. Vijay Raghavan**, former Director National Centre for Biological Sciences (NCBS) and Principal Scientific Adviser, emphasised the multifaceted nature of science communication. He highlighted that science communication is not a monolithic activity but rather a spectrum that ranges from reaching large public audiences through mediums like planetariums to engaging with policymakers and elites in one-on-one settings. Raghavan pointed out that effective science communication must include a feedback loop, where the impact of communication efforts is assessed and used to refine future strategies. He also stressed the need for scaling up these efforts without compromising quality, ensuring that science communication reaches all segments of society.

**Prof. Jahnvi Phalke**, Director, Science Gallery Bengaluru, provided a perspective rooted in public engagement. She described science communication as a tool for offering the public insight into how knowledge is produced, bridging the gap between research and society. Phalke emphasised the importance of creating spaces where the public can engage with scientific ideas, not just as consumers of information but as active participants in the process of knowledge creation. She underscored the responsibility of science communication to facilitate two-way dialogues, where public feedback and aspirations inform research agendas.

**Dr. Anil Kumar Challa**, drawing from his experience in academia, viewed science communication as an integral part of the educational process within universities. He advocated for a shift in focus from merely disseminating facts to fostering an understanding of the scientific process itself. Challa emphasised the importance of outcome-driven science communication, where the goal is not just to inform but to engage and empower communities through knowledge. He called for breaking down traditional academic silos and integrating public and community engagement into the core functions of universities.

**Dr. Namrata Sengupta**, leading Public Engagement and Outreach at the Broad Institute of MIT and Harvard, USA, approached science communication through the lens of audience engagement. She highlighted the importance of tailoring communication efforts to different audiences, whether through public talks, museum exhibits, or science policy initiatives. Sengupta stressed the need for continuous learning and adaptation in public engagement, noting that effective science communication must evolve in response to public needs and feedback. She also emphasised the importance of institutional commitment to public engagement, supported by sustainable funding and resources.

### **Institutional Perspectives on Science Communication**

The session also included insights on institutional role in promoting science communication. Raghavan shared the history of science communication at NCBS, emphasising how the institution organically developed a strong science communication program. This growth was driven by a recognition of the importance of outreach and the involvement of interdisciplinary visitors, including historians, filmmakers, journalists, and social scientists. Raghavan highlighted the need for institutions to remain open to such interdisciplinary encounters, which can significantly enrich science communication efforts.

Phalke discussed the unique approach of Science Gallery Bangalore, an institution dedicated entirely to public engagement with science. She noted that the gallery was founded with the specific goal of bringing together scholars from various disciplines with artists to create public engagement around cutting-edge research. The success of Science Gallery Bangalore, Phalke argued, is due in large part to the support from both the government and private philanthropy, as well as the vibrant ecosystem of Bangalore, which has been particularly receptive to innovative ideas in public engagement.

Challa reflected on the challenges and opportunities for science communication within universities and research institutions. He emphasised the need for universities to integrate community engagement into their core functions, making their figurative and literal walls more porous. Chella argued that traditional boundaries within academia are breaking down, and there is a growing need for faculty and students to adopt new roles in community engagement. This, he suggested, would not only enhance science communication but also contribute to the broader goal of making universities more connected with society.

Sengupta outlined the comprehensive public engagement efforts at the Broad Institute, an independent, nonprofit research institution partnered with MIT and Harvard. The Institute engages key audiences, including partner institutions and the general public, through various initiatives like public talks, which are both in-person and streamed online. The Office of Communications handles broad outreach, while the Office of STEM Engagement focusses on student education. The Broad Discovery Center, a public science museum, plays a significant role in community engagement. Additionally, the Institute emphasises patient-partnered research, particularly in biomedical fields, ensuring that public involvement is integrated into research projects.

*“Since we are a nonprofit institution, with more than one-third of our funding coming from federal sources, we recognise our responsibility to communicate our research to the public. This is taxpayer-funded research, and accountability is crucial. This necessity has driven the creation of central offices like communications, HR, and grant management, all supported by the federal budget allocations that come with our research funding. Universities and research institutions often rely on these structures to ensure that their federally funded research is effectively communicated and managed.” Sengupta*

### **The Need for Sustainable Funding and Resources**

One of the recurring themes of the discussion was the need for sustainable funding and resources to support science communication. The panel discussed the importance of making a strong business case for science communication, noting that while the social case is often clear, it is equally important to demonstrate the economic value of these efforts. Phalke emphasised the role of government support, corporate social responsibility (CSR) funding, and even small-scale retail funding from the public as critical sources of financial support.

Phalke also highlighted the need for ‘patient’ funding—long-term financial commitments that allow science communication initiatives to develop and demonstrate their impact over time. She shared an anecdote about a family who, after visiting an exhibition at Science Gallery Bangalore, offered a small donation, underscoring the potential for community ownership and support of public engagement initiatives.

### **Unlocking the Potential of Science Communication**

As the discussion drew to a close, the panellists reflected on what is needed to unlock the full potential of science communication in India. Raghavan argued that the next challenge is expanding the footprint of science communication without compromising quality and making science communication a more economically viable profession. As opposed to those with passion alone coming here and staying on despite everything. He indicated that while this might be challenging, there are already positive signs of greater job opportunities in both industry and public-facing sectors, such as health, agriculture and so on.

Sengupta emphasised the importance of institutional buy-in and the need for pilot projects that can demonstrate the value of science communication and then be scaled up. She and other panellists also highlighted the role of organisations like FAST India for its ability to convene diverse stakeholders and suggested that this approach could be a model for future efforts to build strategic roadmaps and interventions for science communication in India.

Challa expressed optimism about the future of science communication, noting that while the initial growth phase may be challenging, the seeds have been sown for a more robust and impactful science communication ecosystem in India. He argued that the appetite for high-quality science communication exists and that, with the right support, these efforts will continue to grow.

## Way forward

The SciComm ThinkLabs report launch was not just a reflection on the state of science communication in India but also a call to action. The discussions underscored the progress that has been made while also highlighting the significant work that remains. The discussions at the webinar made it clear that unlocking the potential of science communication in India will require continued collaboration, strategic planning, and resource mobilisation. It will also require a shift in how science communication is perceived, moving from a niche activity to a central component of India's scientific and societal development. As the panellists pointed out, the stakes are high, but so too is the potential for transformative change.

The SciComm ThinkLabs report and resources can be accessed here: [https://www.fast-india.org/wp-content/uploads/2024/08/SciComm-Thinklabs\\_Report.pdf](https://www.fast-india.org/wp-content/uploads/2024/08/SciComm-Thinklabs_Report.pdf)