Snowmass2021 - Letter of Interest

Science / Society: considering new paradigms of planning for public engagement and communication

Topical Group(s): (check all that apply by copying/pasting \Box/\Box)

C (CommF03) Diversity and Inclusion

- \checkmark (CommF04) Physics Education
- \square (CommF05) Public Education & Outreach

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The potential for science to benefit society is constrained in large part by the limitations on who is permitted to participate in the scientific enterprise. Maximizing participation and engagement in science face a number of critical problems. For example, legacies of elitism and bigotry in science culture persist and enhance disenfranchisement of many groups. Also, many scientists still tend to view themselves as objective arbiters (without bias) of knowledge, talent, and scientific value. Finally, scientific evidence is typically not sufficiently prioritized in the creation of public policy.

Modes of communication and engagement between professional scientists and other stakeholders (the public, scientists in different fields, non-science scholars) are both conduits of information and avenues for enfranchisement in the scientific enterprise. As such, these tools and frameworks for communication present opportunities to address the aforementioned challenges. Furthermore, professional scientists have significant relative privilege and power in the design and implementation of initiatives at the heart of these opportunities.

In this letter of interest, we recommend a number of actions to newly frame and envision science communication amongst all stakeholders, which include:

1. focus on strategic planning for science communication across the entire high-energy physics (HEP) community;

- 2. acknowledge science and science communication as a learnable/teachable skill and not an inherent trait possessed by individuals;
- 3. prioritize and focus on ethics and justice in the contextualization, framing, and strategic planning of communication initiatives;
- 4. partner with communities when seeking to communicate with them regarding science;
- 5. actively pursue new and alternative modes of communication; while the "sage on the stage" likely has value, it is also likely to be overused to the detriment of deep and widely reaching communication;
- 6. alongside technical discussions, we should have discussions of ethics and justice in scientific contexts and histories, even beyond the obvious example of the atomic bomb;
- 7. communicate honestly and transparently about the consequences of scientific research (both positive and negative).

Strategic planning based on a shared vision will be necessary for long-term and far-reaching public engagement that brings meaningful improvement.