

Science Communication – A Trial by Fire

The beginning of the year 2020 unleashed a virus upon the unsuspecting citizens of the world. A virus that was unknown earlier, its sinister designs becoming clear only as it began infecting hundreds, then thousands and finally millions across the globe – even to this day as the SARS-CoV-2 virus ravages through populations, mutating, changing colours and often becoming increasingly infective. While scientists scrambled to study the virus and its infective mechanism and technologists and innovators tried to come up with solutions to keep the virus at bay, doctors and health workers in hospitals and health centres around the world struggled to keep their patients alive – with the little knowledge and information about the virus that came through.

Through it all, humans around the globe were befuddled, confused, scared, and often misinformed. And therefore communicating facts and realities about the virus emerged as one of the biggest challenges before science journalists and communicators. More so, because new and changing information and insight about the virus was becoming available almost by the hour. There have been many efforts to look at the challenges that science communication faced during the past year and also to gauge the perception of the publics around the world about the viral phenomenon, about the scientific community, the research and development process, and other issues related to science and technology.

The first such study was conducted by the Pew Research Center across 20 publics in Europe, the Asia-Pacific, Russia, the U.S., Canada and Brazil from October 2019 to March 2020, just before the novel coronavirus assumed pandemic proportions. The survey results show that scientists and their research are widely viewed in a positive light. Encouragingly, in India, 57% of those surveyed thought their country's medical treatments are the best in the world or above average. Only about one-in-ten Indians think their medical treatments are below average (11%). Almost three-quarters of people in India believe that government investments in scientific research aimed at advancing knowledge are usually worthwhile for society over time. On similar lines, in India, three-quarters say the Indian Space Research Organization's space exploration program has been good for society.

The survey found that most Indians tend to view Artificial Intelligence (AI) in a positive light saying it has been good for society. About 50% think produce grown with pesticides (53%), foods made with artificial preservatives (53%) or genetically modified foods (48%) are unsafe. Contrary to the anti-vaccination movements in several parts of the world, almost 55% in India believe in preventive health benefits from the MMR vaccine with 49% rating the risk of side effects from the MMR vaccine as low or none.

The Pew Center survey also revealed that in general public concern about global climate change has gone up over the past few years. In India, almost 70% say climate change is affecting where they live a great deal (28%) or some (42%). And, about 61% think protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs. A smaller share (25%) thinks creating jobs should be the top priority, even if the environment suffers to some extent.

Another study that involves practitioners and experts across India, Switzerland and the United States, in collaboration with Swissnex in India and Boston, Science et Cité and the Swiss Academies in Switzerland, and the National Institute of Advanced Studies in India is dubbed CovidSciCom. The study has tried to get insights from science journalists and communicators on how the COVID-19 pandemic has shaped and impacted science reporting, both for decision-makers and the general public, and the lessons learnt.

Ever since the beginning of the pandemic, the excessive creation and flow of misinformation and fake information has been a cause for concern. The WHO even dubbed the pandemic as an “infodemic”. This study too found that fake news and politicization were viewed as significant obstacles to efficient science communication. In an encouraging sign for the scientific community, the study found that for most respondents scientists were a trusted source of information, while science journalists lag behind. The respondents’ most trusted sources of information about the pandemic were researchers, universities, and international authorities such as the WHO. While journalists were only moderately trustworthy, the least trusted sources of information were local public authorities and life science companies. However, most respondents were concerned about quality control issues in COVID-19 studies, especially the dissemination of results before peer-review.

The study also found that almost half of the responding science communicators were very active on social media, with Twitter leading (87% of regular users), followed by Facebook (58%), and LinkedIn (41%). Scientists are the least likely to use social media every day, the study found.

The pandemic has unearthed challenges to the communication of scientific information which the science communication community would do well not to ignore. The viral pandemic has brought to the fore the need for a closer networking and sharing of information between communicators, scientists and authorities so that authentic and factual information could be transmitted to the people to ensure the right decision making.

Hasan Jawaid Khan