

Public communication of science

The Indian Academy of Sciences organized a brain storming session at IISc recently. It was organized at the behest of DST and was meant to discuss the new Science, Technology and Innovation policy announced earlier this year. I must say that many of us were disappointed by two things: C. N. R. Rao's absence and by the lack of promised brainstorming.

As I could not pose questions in that session, I would like to raise a few issues here, restricting myself to a field that I am associated with, i.e. public communication of science. For relevance, I pick up the first and the last points of the policy document that was circulated by the Academy that day. The document aims at 'promoting the spread of scientific temper among all sections of society; and triggering ecosystem changes in attitudes, mindset, values and governance systems of publicly funded institutions engaged in STI activities...'

I argue that for inculcating scientific temper and changing mindsets, one simple solution would be to let people know what Indian scientists and research institutions actually do. All the traditional and modern means of communications should be used. But the fact is, even as the number of journals published from India has increased, there has been no effort, individual or collective, to take new research findings to the media, and, by extension, to the people at large.

At a time when the funds are not in short supply, relatively speaking, but talent is, an all-hands-at-deck approach needs to be adopted to set up a mechanism by which everything that needs to be told about science is, well, told. It could range from research findings to policy changes, job openings to career rewards, grand challenges to minor problems. After all, a good deal of science in this country is done by taxpayers' money. Moreover, if people do not know about this enterprise, how will they send their best and the brightest to pursue careers in science?

Nobody needs to reinvent the wheel here. Globally, good research institutions and quality journals send out embargoed briefs on their forthcoming papers. These briefs are easy to understand and are accompanied by the author/s' e-mail

and phone number. The American Association for Advancement for Science, which publishes *Science*, also runs a newswire service called Eurekalert¹. Some journals use this service; others manage their own mailing list. Journalists have to register for these services and if ever they break the embargo, they are penalized.

So certainly, the popular or mass media has a role to play in science communication and promoting scientific temper much as some scientists would like to discount this.

Incidentally, the business model of news organizations worldwide is under stress. While the readership is moving online, advertising is not. In the West, a newspaper is closing down somewhere every day. Magazines are no better. What is worse, the downsizing axe first falls on science reporters. India, which never had a vibrant science journalism culture in any case, is no different. It is only a matter of time before India's poor Internet penetration, currently at 120 million, improves. It is projected to reach 300 million by 2015 (ref. 2). Large masses of readers will switch to the digital medium, just as it is happening now elsewhere. How Indian media companies will cope with that is not the question. Already the workplace mantra is to do more with less. Having dedicated science writers in news organizations is nothing but luxury which very few news managers/editors can afford.

G. N. Ganesh, director of IISER, spoke about writing as an alternate career for science students. It is a great idea but where will these students find jobs? Certainly not in traditional news organizations!

According to the 2013 Pew Research Centre report on state of the media³, which is about American news media but reflects the global reality, a 'continued erosion of reporting resources has converged with growing opportunities for newsmakers, such as political figures, government agencies, companies and others, to take their messages directly to the public'.

The news industry is growing in India, but the industry's cutbacks in reporting are no different from the US. The bar-

rage of studio chats on prime time national television point to the fact that reportage-led news or features, which require resources to produce, have given way to anchor-led debates, which do not cost as much.

Ganesh also mentioned a rather embarrassing fact. Sometimes when he has guest speakers at IISER and he invites the press, he also ends up giving questions to the reporters (for the speaker) as they do not know what to ask. That's true. But should not that be an occasion to reflect upon why science journalism is in deep crisis in this country?

It is a chicken-and-egg problem. Because news organizations do not encourage specialization in science, reporters are ill-educated/prepared. But there is another side to this issue. Reporters are only too happy to switch 'beats' (or subjects) because getting access to scientists while keeping to a deadline and then making them talk about their or others' work in simple language is an art in itself. Scientists often accuse journalists of simplifying the facts beyond recognition; editors accuse them of keeping them beyond comprehension. There is a limit to how far one can go either way. While we may endlessly debate how far is too far, the moot point is covering science is not easy, at least not as easy as it to cover politics in this country.

As a species, we are perhaps dependent on science for everything, literally. It is time Indian scientific establishments, policy makers and scientists understood the power of communication and did something about it.

1. <http://www.eurekalert.org/>
2. http://www.mckinsey.com/locations/india/mckinseyonindia/pdf/Executive_Summary_Online_and_upcoming_The_Internet_impact_on_India.pdf
3. <http://stateofthemediamedia.org/>

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