

Parallel Session 13: Lessons on PCST history

THE DYNAMIC PROCESS OF SCIENCE COMMUNICATION HISTORY IN BRAZIL

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Abstract

We analyse the dynamic process underlying the relationships between science and public in Brazil throughout the 20th century. We compare the science communication activities at three periods of time: (a) 1920s/1930s; (b) post-Second World War to 1960; (c) from 1980s to the present moment. With the support of historical analysis and comparisons, we discuss some of the current challenges and dilemmas for communicating science in Brazil.

Key Words: history of science communication; science communication in Brazil

Text

Our objective is to analyse, from a historical perspective, the dynamic process underlying the relationships between science and public in Brazil. We will map out how science communication has been developed throughout the 20th century considering the main actors, themes, motivations, objectives and the viewpoints on science. We will consider three periods of time: (a) 1920s/1930s; (b) post-Second World War to 1960s; (c) from 1980s to the present moment. The justification for choosing these periods is based on the fact that they were marked by more intense and diversified science communication activities, in comparison to other periods of time.

In the 1920s, science communication was an important tool used by the embryonic Brazilian scientific community to create a favourable atmosphere in the public opinion and in the public sphere aiming to allow the development of the basic research in the country. However, science communication had still a lacunar and fragmented character as direct reflex of the fragile situation of the Brazilian scientific structure.

The main characteristics of the science communication activities in this period were: the emphasis on basic scientific concepts; the participation of professors

and scientists, among them some important members of the Brazilian Academy of Science; the targeting of the activities to a small-illustrated elite. There was also a significant link of science communication to the educational movement, seen as an essential factor for the Brazilian progress.

There was an optimistic attitude toward the potential of the new mass communication media – the radio and the cinema. An evidence of this is the creation of the first radio in Brazil, in the scope of the Brazilian Academy of Science, and of an institute of educative cinema. There was the belief that the new technologies would allow a quick and cheap dissemination of knowledge even to remote regions, which would contribute for consolidating the national identity.

After the Second World War, with the national policy aiming at developing the country, several scientific institutions were created. Within this general context, science appeared under a redeeming perspective and as a tool for overpassing the economical underdeveloping.

There was a general interest from the public toward physics as consequence of the impact produced by the nuclear issue and of the participation of the Brazilian scientist Cesar Lattes in identifying the meson π in the years 1947/48. Magazines such as *O Cruzeiro* and *Manchete* and newspaper's supplements such as *Ciência para Todos* brought several articles on science, stressing the activities of Brazilian institutions and researchers, as well as recent developments, mainly in the nuclear domain.

In 1948, a group of scientists created the Brazilian Society for the Advancement of Science, the most representative Brazilian scientific society, including science communication as a strategical issue. This period is also characterized by the late appearance – in comparison to European countries – of 'science writers', in contraposition to previous periods in which scientists and professors developed science communication activities as a secondary activity. José Reis is a significant example; he wrote for six decades for one important Brazilian newspaper and also hold other activities for different audiences.

The third and last period of our study, the 1980s to nowadays, is a rich moment in terms of science communication. It started with the foundation of *Ciência Hoje* (Science Today), a science popularisation project created by the Brazilian Society for the Advancement of Science. It embraces magazines for adults and kids, a newsletter on science policy and a website. The first science communication TV programs were created, such as *Globo Ciência*.

Following the international tendency, dozens of science centres and museums. They have been absorbing professionals with different backgrounds: young scientists, architects, journalists, educators, etc. Some of them, with an interactive character, seek to stimulate the curiosity, the interest toward science and a critical attitude. But there is a tendency to reproduce what is done in the United States and Europe with no significant integration of science with local cultural aspects. Only around 1.5 million people visit Brazilian science museums per year (about 1% of the Brazilian population).

Many newspapers have science sections, but the space is limited and few journalists are specialised in science. Most of the published articles are

adapted translations of press releases produced by international science journals, such as Science and Nature.

In the science communication activities, is hegemonic the 'deficit model'. In several cases, science communication is target to scientific marketing – emphasising the spectacular character of scientific and technological advances and with no critical attitude toward science– or as a missionary enterprise for 'science literacy' that uses to disqualify the public. Often important aspects are not considered in the construction of a realistic vision of science, including its insertion in the cultural and socio-economical context, controversies, uncertainties and risks. The organised participation of the scientists is still not very frequent and does not deserve significant institutional valorisation. There are still few studies on the activities hold in Brazil and their impact on the audience. The huge economical and social inequalities reflects in the science communication activities, which in general are concentrated in the big cities and in medium and high classes. There are still few initiatives aimed to communicate science, in a consistent way, for the poor sectors.

However, there is an interesting movement of re-thinking the activity, and several forums have been created for discussing strategies for improving it. An important characteristic of the present moment is the (small-scale) attempts throughout the country for professionalizing science communicators. In the last years, a debate has been holding on the formulation of national and regional programmes for communicating science.

