

# Science journalism in Latin America: historical record of the First Interamerican Seminar held in the region in 1962

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## Abstract

In this article, we have the objective of retrieving the memory of the First Interamerican Seminar on Science Journalism held in Latin America, in Chile, in 1962. The seminar was the starting point for other events on the field in other Latin American countries, in a movement that culminated in the creation of the Ibero-American Association of Science Journalism and of national associations in the region. We will analyse in particular the characters and main discussions present at the event in this article target to the section Arena, which includes reflection texts with more formal freedom.

**Keywords:** Science journalism. science communication. science popularisation. history. José Reis. Latin America.

## Introduction

In his opening speech, one of the organizers of a meeting on science journalism says that in Latin American countries, society and decision makers know very little about science, a limitation that has led to cuts in science research budgets and, ultimately, to brain drain.

The scene described above could have taken place today, but it happened in Chile in 1962 in what was reportedly the First Inter-American Seminar on Science Journalism held in Latin America. Despite being little known today, at that time the event drew attention from the media, yielding two front pages in the newspaper *Folha de S.Paulo*<sup>1</sup>.

We had already seen references to this event, for example, in reports by the Spanish journalist Manuel Calvo Hernando (2005, 2006), someone whose contribution was fundamental to the movement that led to the Latin American science journalism seminar, with participation of several enthusiastic supporters. Among these, Antonio Cacia Prada (Colombia), Arístides Bastidas (Venezuela), Jacobo Brailovsky (Argentina), José Reis (Brazil) and Sergio Prenafeta (Chile). Nevertheless, only with the arrival of the José Reis' archive to our institution (see more on this below) in Brazil in 2015 did we have access to documents that would allow us to understand the events that took place at that time. The

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1 “LA debate Oct 13, 1962 science journalism debate, based on Brazilian work”, *Folha de S.Paulo*, 13/10/1962, and “I Science Journalism Seminar”, *Folha de S.Paulo*, 18/10/1962.

Seminar was an important milestone in the consolidation of science journalism in Brazil and other countries in Latin America, the result of an organized movement that involved different social actors.

In this context, the 1962 event was the starting point for other events on the topic, such as: Ecuador in 1965; Argentina in 1966; Colombia in 1969; and Madrid in 1967 (CALVO HERNANDO, 2005, 2006, MASSARANI, 2010, MASSARANI *et al.*, 2012). The Ibero-American Association of Science Journalism was created at the Madrid event. Through the Association, a series of Ibero-American conferences were held, such as Venezuela (1974), Spain (1977), Mexico (1979), Brazil (1982), Spain (1990), Chile (1996) and Argentina (2000) (CALVO HERNANDO, 2005, 2006).

The Ibero-American Association in its turn encouraged the establishment of national associations as part of the Latin American movement: Argentina (1969), Venezuela (1971), Chile (1976), Colombia (1976) and Brazil (1977). As an expression of appreciation for the field, in 1978 - therefore, in the year following the creation of the Brazilian Association of Science Journalism -, the Brazilian government created the José Reis Science Communication Award, in honor of this Brazilian scientist and science communication icon who played an important role in the science journalism movement in Brazil and Latin America. Enthusiasm for science journalism remained strong in several of these countries in the decades that followed. More recently, however, the Ibero-American Association and at least two national associations - Argentina and Brazil - have lost impetus, being replaced by networks that bring together younger generations, namely the Argentine Science Journalism Network, created in 2007, and RedeComCiência – the Brazilian Network of Journalists and Science Communicators, in 2018<sup>2</sup>.

## **José Reis and his archive**

As previously mentioned, José Reis played a fundamental role in the consolidation of scientific journalism in Brazil and Latin America.

It was precisely through José Reis and his archive that the idea for this article came up. The objective is to analyze the seminar that took place in 1962, particularly the speakers and the main discussions held at the event.

Physician, virologist, pathologist, journalist and writer, José Reis played an important role in the construction of Brazilian science and science communication (MASSARANI; BURLAMAQUI; PASSOS, 2018). He worked at the Biological Institute, in São Paulo, and one of his greatest achievements was to be part of the group who created the Brazilian Society for the Progress of Science (SBPC after its acronym in Portuguese), in 1948. One year later, he helped create SBPC's *Science and Culture* magazine, becoming its editor. Reis' life story is marked by diversification. He published books for children, young adults and

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<sup>2</sup> For more information, see <https://radpc.org/> e <https://www.facebook.com/redecomciencia/>.

adults, and he wrote for radio shows and science stories for the *Folha da Manhã* (Folha Group), in the 1940s. At *Folha de S.Paulo*, where he had a column for six decades, he was director from 1962 to 1968 and encouraged the creation of a children’s weekly supplement covering science topics.

In 2015, Casa de Oswaldo Cruz, at the Oswaldo Cruz Foundation, received the José Reis archive, donated by his family, composed of books and documents<sup>3</sup>. Among the documents, we identified the records of the 1962 event, as described in the introduction of this article. Under the heading “Primer Seminario Interamericano de Periodismo Científico” (First Inter-American Seminar on Science Journalism), the material included the contents presented by the different speakers. It also contained a committee report that summarized the discussions held and provided recommendations on how to consolidate the field of science journalism.

## First Inter-American Seminar on Science Journalism

### The speakers

The event took place in Chile over three days, from October 16 to 18, 1962, organized by the Pan American Union of the General Secretariat of the Organization of American States and the Technical Center of the Inter-American Press Society.

The program consisted of people representing science institutions and the media. Table 1 shows the speakers and their presentations:

**Table 1** – Speakers at the seminar according to the preliminary program<sup>4</sup>

Speaker	Institution	Country	Subject of the talk	Science or media?	Link to science communication
Ritchie Calder	University of Edinburgh	Great Britain	Objective and practice of popularizing science <sup>5 6</sup>	Science	Winner of the UNESCO Kalinga Award for Popularizing Science
Federico Rutllant <sup>7</sup>	Chilean National Astronomy Observatory	Chile	(not specified)	Science	(not identified)

<sup>3</sup> For more information on José Reis and his archive, please check this site: <http://josereis.coc.fiocruz.br/>.

<sup>4</sup> The final program was not found in the documentation. Therefore, we were not able to confirm whether the people signed up actually attended, although they had registered in writing.

<sup>5</sup> The original wording used in the documentation was maintained.

<sup>6</sup> The lecture was later published in the magazine *Ciência e Cultura*, v. 16, n. 3, in 1964.

<sup>7</sup> Available at: <http://www.memoriachilena.gob.cl/602/w3-printer-92385.html>. Accessed on: May 9, 2019.

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Speaker	Institution	Country	Subject of the talk	Science or media?	Link to science communication
Raul Luis Cardón	National Council for Scientific and Technical Research	Argentina	(not specified)	Science	(not identified)
Marcel Roche <sup>8</sup>	Venezuelan Institute for Scientific Research	Venezuela	(not specified)	Science	Carried out science communication activities, including TV shows and films. Winner of the UNESCO Kalinga Award.
Crodowaldo Pavan <sup>9</sup>	University of São Paulo	Brazil	Development of Genetics in Brazil	Science	Pavan participated in the “sextaferinas” (Friday meetings), where culture and science issues were discussed, at the Biological Institute in the 1930s and early 1940s; in the 1980s, he was instrumental in the creation of the ‘Estação Ciência’, one of Brazil’s first interactive museums. <sup>10</sup>

<sup>8</sup> With a scientific career, he played an important role in the Venezuelan science, being General Secretary of the Venezuelan Association for the Advancement of Science (ASOVAC), founder and director of the Venezuelan National Council for Scientific Research (CONICIT) and the academic journal *Interciencia*. Available at: [https://es.wikipedia.org/wiki/Marcel\\_Roche](https://es.wikipedia.org/wiki/Marcel_Roche). Accessed on: 9 May 2019.

<sup>9</sup> Pavan was a Brazilian geneticist who played a fundamental role in the construction of Brazilian genetics; he was president of the Brazilian Society for the Progress of Science (1981-1986) and director-president of FAPESP (1981-1984). For more information, see Perondini (2010).

<sup>10</sup> For more information, see Kreinz and Nunes (2010).

Speaker	Institution	Country	Subject of the talk	Science or media?	Link to science communication
Enrique Pérez	Bogotá Botanical Garden and <i>El Tiempo</i>	Colombia	Journalistic science communication	Science	Science editorialist for the newspaper <i>El Tiempo</i> , director of the Botanical Garden of Bogotá and the Museum of Natural Sciences.
Jacobo Brailovsky <sup>11</sup>	<i>La Nación</i>	Argentina	The mission of journalism in science communication	Media and Science	Important player in the Argentine and Ibero-American science journalism.
José Reis <sup>12</sup>	<i>Jornal da Manhã</i> <sup>13</sup>	Brazil	Objectives and policies in covering Science themes	Media and Science	Important stakeholder in the Brazilian and Ibero-American science journalism. Winner of the UNESCO Kalinga Award.
Hillier Krieghbaum <sup>14</sup>	New York University	United States	Training science writers	Media	Linked to the journalism department
Alberto Hurtado	Peruvian University of Medical and Biological Sciences	Peru	Medical research in the heights	Science	(not identified)

11 Important player in the Argentine and Ibero-American science journalism. A physician, he was one of the founders and president of the Argentine Association of Science Journalism, one of the founders and vice president of the Ibero-American Association of Science Journalism, and was a permanent contributor to the newspaper *La Nación*. Available at: <https://www.fundacionkonex.org/b1161-jacobo-brailovsky>. Accessed on: 9 May 2019.

12 Massarani, Burlamaqui and Passos (2018).

13 According to the documentation found in his archive, José Reis was linked to the *Folha da Manhã*. However, according to Grupo Folha, the newspaper had ceased to exist since January 1, 1960, and the company's three titles ("Folha da Manhã", "Folha da Tarde" and "Folha da Noite") merged and became the *Folha de S.Paulo* newspaper. Available at: [https://www1.folha.uol.com.br/institucional/historia\\_da\\_folha.shtml?fill=4](https://www1.folha.uol.com.br/institucional/historia_da_folha.shtml?fill=4). Accessed on: 10 May 2019.

14 Available at: <https://www.nytimes.com/1993/03/18/obituaries/hillier-krieghbaum-nyu-professor-90.html>. Accessed on: May 9, 2019.

Speaker	Institution	Country	Subject of the talk	Science or media?	Link to science communication
John Foster	Colombia University	United States	Problems and opportunities in covering science topics	Media	Linked to the journalism department
Hugo de Almeida Leme <sup>15</sup>	Luiz de Queiroz School of Agriculture	Brazil	Agronomy in Brazil	Science	(not identified)
Román Arana-Iñiguez <sup>16</sup>	Hospital de Clínicas	Uruguay	(not specified)	Science	(not identified)
Alberto Giesecke	Geophysical Institute of Peru	Peru	(not specified)	Science	(not identified)
Earl Ubell	<i>Herald Tribune</i>	United States	How US newspapers publish science	Media	Science section Editor
Napoleón Vieira Altamira	<i>El Diario de Hoy</i>	El Salvador	(not specified)	Science	(not identified)

It was a real male universe, with 16 male speakers coming from eight countries: Argentina, Brazil, Chile, Colombia, Great Britain, Peru, United States and Venezuela. The science representatives received more consideration than those of the media, with 11 people linked to science institutions and five from newspapers - two with a science background and two from the Journalism Department at universities.

According to the list of participants, the meeting brought together around 30 people, including other media representatives (*La Prensa*, Peru, *El telégrafo*, Ecuador, *La Nación*, Costa Rica, *La Prensa*, Argentina, *El Norte* and *Novedades*, Mexico, *Los Principios*, Argentina) and representatives from the Ford Foundation, the Rockefeller Foundation and the World Bank for Reconstruction and Development.

Among the speakers, we highlight those who played an important role in science journalism and/or in science communication in their countries, such as the aforementioned Brazilian José Reis, the Argentine Jacobo Brailovsky and the Venezuelan Marcel Roche. The physician and journalist Brailovsky started working for the newspaper *La Nación* in 1924, where he had a weekly column. He was founder and first president of the Argentine

15 Brazilian Agronomist and politician. Available at: <http://www.fgv.br/cpdoc/acervo/dicionarios/verbete-biografico/hugo-de-almeida-leme>. Accessed on: May 9, 2019.

16 Physician and researcher. Available at: <http://historiasuniversitarias.edu.uy/biografia/arana-iniguez-roman/>. Accessed on: May 9, 2019.

Association of Science Journalism. Roche was a researcher, working at the Venezuelan Institute for Science Research at the time. He was fundamental in the development of Venezuelan science, working at the Venezuelan Association for the Advancement of Science (ASOVAC) and the Venezuelan National Council for Research in Science and Technology (CONICIT); for his science outreach initiatives, he won the UNESCO Kalinga Award in 1987 - the most important international award for popularizing science.

Another key name in the field was the American Earl Ubell, who in 2007, the *New York Times* newspaper considered “the one who enlightened the public with science themes”. Ubell was a physicist and served as a science journalist and editor, starting his career in the 1950s at *The New York Herald Tribune*<sup>17</sup>.

Others seemed to be important scientists in their countries, but with a lesser role in science communication, such as the Brazilian Hugo de Almeida Leme, agronomist and politician, who as the Minister of Agriculture, spoke about Brazilian agronomy.

In the documentation analyzed, the themes of the speakers’ presentations were not always clear, but based on the information we had we were able to identify that at least eight out of the 16 addressed issues of science communication. In at least five, the topic was restricted to science issues, such as Crodowaldo Pavan, who reported the genetic constructs in Brazil, and Alberto Hurtado (Peru), who spoke of medical research in the heights. Federico Rutllant and Alberto Giesecke made institutional presentations; respectively, a description of the Chilean National Astronomy Observatory and the Geophysical Institute of Peru. Hugo de Almeida Leme spoke about Brazilian agronomy.

Among the speakers from outside the Latin American region, some had the intent to share the reality of their countries. This was the case with Earl Ubell - at the time he had been science editor of the Herald Tribune for 10 years - who shared the context of the United States with the participants, i.e.: that science coverage had grown due to a demand from the public itself. He said, “The interest generated by atomic bombs, Salk’s polio vaccine, rockets and modern astronomy has penetrated the publisher’s sanctuary”<sup>18</sup>. According to Ubell, there were 1,700 daily newspapers in his country and between 100 and 200 science writers, hardly enough.

## Topics discussed

### Why communicate science

Most of the participants were from the science field so the emphasis of the event was on the need to give visibility to science and create better working conditions for scientists. The opening speech was given by John Reitemeyer, vice-president of the Inter-American

17 Earl Ubell, Who Enlightened Public on Science, Dies at 80, *The New York Times*, May 31, 2007. Available at: <https://www.nytimes.com/2007/05/31/nyregion/31ubell.html>. Accessed on: Dec. 29, 2020.

18 “How United States newspapers publish science”, Earl Ubell, p. 2.

Press Society and manager of the *Hartford Courant*, a Connecticut state newspaper, in the United States. Reitemeyer pointed out that the brilliant and dedicated “men” who work in science were not well known and in their countries, and therefore, had inadequate working conditions, which had led to a brain drain. In what is a contemporary discussion, he cited the case of Argentina and the 10% cuts in salaries of high-level scientists. Reitemeyer argued that science and the media should join forces and go on a crusade to increase public understanding of science and, consequently, achieve greater support for science.

Along the same lines, Argentine Raul Luis Gardon emphasized the need for science to have support from the State, stating that it is “essential that government officials be persuaded of the convenience and the need to help science and apply its results to solve many local problems”<sup>19</sup>.

Gardon also said:

Equally important is to create a favorable opinion of science work; make the value of science (cultural, social, utilitarian) understood, the researcher’s hierarchy and the transcendence of his work. This will not only facilitate support from the state and other sectors (such as business), but will also favor the multiplication of science as a vocation and greater dedication to research<sup>20</sup>.

José Reis argued that popularizing science through all available means is an important force in shaping the attitude of the modern citizen towards science and the problems it raises:

This importance, although great in developed nations where there is an adequate educational system, is even more significant in underdeveloped nations, where the educational system fails to provide a good science background. In these countries, the science communicator assumes the responsibility of creating a critical attitude in society that compensates the flaws of the educational system<sup>21</sup>.

## What and how to communicate Science

José Reis argued that science communication should:

1) Highlight the value of science in general and avoid accentuating the difference between pure and applied science. 2) Tend towards teaching fundamental principles and science attitudes, using for this purpose the appropriate motivations that the advances of science and technology offer, but

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19 “Needs and difficulties of scientific-technical development in Latin America. The contribution of journalism to this development”, Raúl Luis Cardón, p. 1.

20 “Needs and difficulties of scientific-technical development in Latin America. The contribution of journalism to this development”, Raúl Luis Cardón, p. 1.

21 “Aims and policies of science journalism”, José Reis, p. 1.



avoid giving the idea that only what is new and spectacular deserves to be called science. 3) Focus attention on the development of science ideas and activities in the country and not just events that occur abroad. 4) Direct attention to the historical aspects of science and technology. 5) Consider the relationship between science and society, highlighting the usefulness of close cooperation between the sciences and humanistic disciplines. 6) Give the public the truthful idea of the scientist as one of the factors of social progress but not the only nor the main one. Above all, the public should not be led into the mistaken idea that scientists belong to a superior, privileged caste<sup>22</sup>.

Earl Ubell addressed the practical issues of a journalist's daily life, such as the question of sources. In his view, covering national events "facilitates contact with various scientists, their work and their way of thinking. It is an immense source of ideas for future stories and an opportunity to find out what will come next"<sup>23</sup>.

In a contemporary perspective, Ubell cited specialized journals, specifically referring to the science journals most commonly used among science journalists, such as *Science*, *Nature*, *The Lancet*, *The British Medical Journal* and *The New England Journal of Medicine*, in addition to *Scientific America*. However, he mentioned the difficulty in choosing the most relevant journals, especially for the Latin American reality.

He further emphasized the importance of using images and designs to attract the attention of the readers.

## Who should communicate Science: the scientist or the journalist?

There was also a discussion on who should communicate science: the scientist or the journalist. Argentine Jacobo Brailowsky sustained that both can communicate, albeit for a good communication, a certain journalistic expertise is necessary, which few scientists have.

José Reis argued that popularizing science "is every scientist's duty, for their work depend to a large extent on the understanding of science by the general public"<sup>24</sup>. For Reis, a scientist must fulfill this duty directly or indirectly; in the latter case "in close collaboration with lay journalists"<sup>25</sup>.

A recurrent argument in the speeches was that there must be partnerships between journalists and scientists. This was the case of Venezuelan Marcel Roche, who focused part of his speech on sharing the experience of how "in a country with virtually no science tradition, journalists and scientists have been able to cooperate, supporting science and helping it grow". Expressing a utilitarian view of science journalism, Roche affirms that

22 "Aims and policies of science journalism", José Reis, p. 2.

23 "How United States newspapers publish science", Earl Ubell, p. 2.

24 "Aims and policies of science journalism", José Reis, p. 1.

25 "Aims and policies of science journalism", José Reis, p. 1.

the media has shown a great interest in “serving” the Venezuelan Institute for Scientific Research, making its research and progress public<sup>26</sup>.

These ideas were replicated in the committee’s report:

A better mutual understanding between the scientist and the journalist of the work they do for society is necessary. The journalist needs to improve his professional training, and the scientist must adopt an attitude of understanding that facilitates the work of information, communication and interpretation of the progress of basic and applied sciences<sup>27</sup>.

## Training

Another recurrent theme in several speeches was training for journalists who cover science topics. For example, Reitemeyer argued that there should be training with seminars of the type taking place at the event for those who work in radio and TV, and Hillier Kriegbaum, who presented a more detailed plan of differentiated strategies.

According to the committee’s report, the Seminar highlighted the importance of strengthening the training of active journalists and students, including (1) preparation of teaching materials and (2) courses and seminars aimed at establishing contact with scientists<sup>28</sup>. The report also recommended including science journalism as a one of the subjects in university courses in journalism, as well as publishing science communication manuals and a list of science communicators and science journalists. It also proposed that funding agencies dedicate scholarships to science journalism.

The report also suggested the creation of an Ibero-American science journalism association, which came to fruition in 1969.

## Final considerations

In this text, we analyzed the speakers and the contents of the science journalism event in 1962. The first aspect that caught our attention was the speakers: while it was a solely male universe and there was a preponderance of scientists, nowadays more women occupy the arena of science journalism and science communication in general, even exceeding men in number. Since then, there has also been a greater diversification of social players involved in this area, including the opening and expansion of interactive science museums (MASSARANI *et al.*, 2012, MASSARANI *et al.*, 2015, MASSARANI *et al.*, 2017, PATIÑO *et al.*, 2019).

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26 “Science and newspaper, a personal experience”, Marcel Roche, p. 1.

27 “Committee report”, n.1, p. 1.

28 “Committee report”, n.1, p. 1.

Precisely because it was an event with a greater presence of scientists, the discussions on why science communication is important had greater weight in its science journalism utilitarian nature of supporting science. However, the discussions went beyond that, especially in José Reis' speech, where he defended a very contemporary vision in which science communication is given a role in the education of science citizenship<sup>29</sup>.

Another contemporary theme was the emphasis on training. If it had been implemented, the plan proposed in the document's Concept Note could have had an important impact on new generations. However, even without its implementation, we have seen that the movement in favor of science journalism has grown, which has led to the creation of national associations and science editorials in several newspapers in the region. Unfortunately, many of these associations, including the Ibero-American and Brazilian, have lost their strength, to the point where in a few cases they were replaced by networks. Many newspapers have lost teams and the editorial staff itself. In other words, over the more than 50 years since this pioneer event, we have seen the expansion in this field and its subsequent retraction - although the area of science communication in general has grown in the region. It is time to make a new event - and a new movement - an inspiring one.

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<sup>29</sup> More texts by Reis on the area can be read in Massarani and Dias (2018).

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