Posgraduation Courses About Pus In The Argentinian Patagonia

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Abstract

The Sede Andina of the Universidad Nacional de Río Negro (Argentina) has taken the initiative to create two postgraduate programs (Especialización en Divulgación de la Ciencia, la Tecnología y la Innovación & Maestría en Ciencia, Tecnología e Innovación, orientación Divulgación de la Ciencia, la Tecnología y la Innovación) focused on the training of critical professionals in public communication of science, technology and innovation (STI), a field of vacancy in our country. The first cohort of the Maestría started in 2010 and, the first cohort of the Especialización in 2011. Both post-graduation courses give an officially recognized title and have the favorable opinion of the CONEAU (Comisión Nacional de Evaluación y Acreditación Universitaria), the responsible committee for the evaluation of University quality in Argentina. Both courses, one with an emphasis on research, the other of a professional nature, have opened a space for training for those wishing to acquire tools and communication of the STI strategies. They offer a broad overview of the theoretical discussions and work areas covering this field as well as workshop spaces dedicated to the generation of communication products. The courses are held in Bariloche (Río Negro) and they are opened to professionals from various disciplines, educators, journalists, researchers or managers who want to discuss the communication of science, technology and innovation applied to fields as diverse as media, museums, schools, interpretation centers or places of institutional communication.

Introduction

The field of public communication of STI addresses issues related to the communication of results and processes of scientific and technical activity, to the analysis of the perception of this activity by the community and to the dynamics of democratic participation. So it is a field of socio-cultural studies that seeks to understand the relationships between knowledge production and its social appropriation and tends to increase the scientific culture of the society as part of a process of strengthening of democratic societies with free access to information. In consequence, it implies to reveal the processes and the socio-political context of the S&T production and not only the results of research or technological applications. Thus, this field is more comprehensive than the delimited by the "Dissemination" name frequently used in our country, and also in our institution.

Despite the growing importance given to the communicative actions of S&T in our country, public communication research is still an emergence field. At the same time, training of professionals is also rather weak in Argentina even though there have been some kinds of short courses as from the 1980s. In this framework the post-graduation programs created by the *Universidad Nacional de Río Negro*, the *Maestría en Ciencia, Tecnología e Innovación* with an orientation in *Divulgación CTI* and the homonymous *Especialización*, aspire to strengthen this areal. It is good to say that training of professionals specialized in public communication of science, technology and innovation can be considered a field whose practices are being reviewed also in other countries (Ramani, 2008; Semir, 2008).

Multiple international experiences in professional training have been spread in the Western world in the last decades, as those of the Australian National University (Australia), Cornell University (USA), Dublin City University (Ireland) or the University of the West of England in Bristol (UK). European experiences that have had an important influence for Latin American countries include the SISSA's from Italy, the Universidad de Salamanca's and the Universitat Pompeu Fabra's from Spain, even extended to Argentina as a Diplomado. Latin American countries such as Mexico (UNAM, ITESO) and Brazil (UNICAMP, Fiocruz) already have well developed proposals in this field, while in Argentina there are many experiences of training, especially courses of scientific

journalism (Dellamea, 2000), some of them integrated into national universities such as those developed at the *Universidad de Buenos Aires (UBA)*.

However, it was not until the year 2010 that the specific postgraduate courses devoted to this purpose were created. Thus, the creation of the *Maestría en Ciencia*, *Tecnología e Innovación (MCTI)* with an orientation in *Divulgación CTI* at the *Universidad Nacional de Río Negro* was the first post-graduation course with a recognized title and approved by *CONEAU (Comisión Nacional de Evaluación y Acreditación Universitaria)* the national evaluation committee responsible for the evaluation of university quality in Argentina. In 2011, this course was seconded by the *Especialización en Divulgación CTI*, which also won endorsement of the *CONEAU*. Note that these academic initiatives were generated in a political context that clearly promotes the technological and scientific development and that recognizes, for the first time, the field of public communication of the S & T as an area to be developed. Thus, also in 2011 the *Universidad Nacional de Córdoba*, the oldest in our country, opened a *Especialización* in this field.

The official system of postgraduate programs in Argentina recognizes three levels for the courses: *Especialización*, *Maestría* and *Doctorado* which differ in duration, requirements of graduation and qualification hierarchy. The UNRN courses are articulated in such a way that it is possible to start the *Especialización* and then conclude with a Master's Degree. Thus, the UNRN is a double offer, one with a professional character, and another devoted to academic research. Both offer a broad overview of the theoretical discussions as well as workshop spaces dedicated to the generation of communication products for the media or for S&T institutions.

The proposal

With the aim of promoting reflection about the communication processes and the development of specific skills, the program of studies of both courses includes theoretical seminars and practical workshops that are articulated in a professional practice and an integrative final work or a thesis. The *Especialización* is structured in a total of 470 hours organized in 14 seminars and workshops and one professional practice. The *Maestría* adds a Basic Cycle consisting of five seminars that offer a theoretical frame

adding 120 hours of seminars, excluding the requirement of professional practice but incorporating 150 hours dedicated to research.

The seminars are organized in cycles:

- Basic Cycle (Only for *Maestría*): five theoretical seminars which give a framework to begin a scientific research.
 - o History of S&T (24 hs.)
 - o Sociology of Science (24 hs.)
 - o Economy of Innovation and Technological Change (24 hs.)
 - o Politics of STI (24 hs.)
 - O Methods and technics of social research (24 hs.)
- **-Theoretical seminars:** six theoretical seminars in the field of public communication of STI.
 - o Public communication of STI (32 hs.)
 - o Communication for STI communicators (32 hs.)
 - o Communication & education (32 hs.)
 - o Communication, risk & environmet (32 hs.)
 - O Linguistic for communicators (24 hs.)
 - o Tics & search systems (16 hs.)
- Workshops: six workshops to produce pieces of STI communication to different medias
 - o Texts in STI (32 hs.)
 - o Scientific writing (24hs)
 - o STI in non-formal education (48 hs.)
 - o STI in audiovisual media (48 hs.)
 - o STI in digital media (24 hs.)
 - o STI in the press (48 hs.)
- **-Electives seminars:** each student should choose two seminars, 24 hours each, from the pool of posgraduation seminars offered by the UNRN or for other universities.

- -Professional Practice: the student should complete a 30 hours practice in an STI institution.
- **-Final work:** to obtain the title of *Especialista* the requirement is to present a final work which articulates the seminars and workshops. This work is produced under the supervision of a tutor.
- Master thesis: to obtain de title of *Magíster* the student have to present an original research or professional proposal, a director is required.

So, this training aims to:

- O Recognize the national and international panorama of the state of the art of the public communication of science, technology and innovation.
- O Perform an analysis of the relationships between the different actors in society, science, technology and innovation from the perspective of public communication.
- O Act in different spaces and means of public communication of science, technology and innovation, both in production processes and in the editing.
- O Manage, organize and lead programs and events for the public communication of science, technology and innovation.
- O Advising public and private institutions in initiatives for the public communication of science, technology and innovation.

The courses are opened for a wide range of professionals and academics:

- O People who work in the area of communication of public and private institutions in environment, science, technology and innovation.
- O Professionals responsible for the direction and management of centres, institutes and departments of teaching, research, technology and development.
- O Professionals responsible for the design, execution, communication and evaluation of innovation, extension and technology transfer projects.
- O Officials, managers, researchers, technologists, journalists and professionals from public and private universities.
- O Teachers and researchers in general.

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- O Journalists and communicators in general.
- O Extensionists and environmental educators.
- o Non-university higher education (tertiary) and secondary education teachers.

Both courses are held, every fifteen days, in Bariloche, province of Río Negro, in Patagonia Argentina. This city brings a great amount of STI's renowned institutions, as well as a large number of technological companies highly innovative and concentrates a high proportion of professionals from different disciplines. Institutions such as *Centro Atómico (CNEA)*, *Instituto Balseiro*, *INTA*, *INVAP*, *Centro Regional Universitario Bariloche (UNCOma)* are representative of the local development in S&T. At the same time, as an important touristic city, Bariloche has infrastructure for accommodation so the context is ideal to offer a national and international scope for these courses.

Both the *Especialización* and the *Maestría* have a solid teaching team from our university enriched by teachers coming from different universities in the country and some visitant professors who join the experience to share seminars on specific topics. At the same time, there is a clear incentive to the development of institutional arrangements that promote the exchange of experiences with other universities and tend to an internalization of the proposal.

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Figure 2

The experience

For University like ours, which started its academic activities in 2009, the action of creating two posgraduate programs in this area very from the beginning has been a great challenge. The joint growth of the University structure, the academic board and the development of courses has not been easy. However, we are already heading the second cohorts of both posgraduation courses and, in fact, nowadays we offer a recognized academic training in a vacancy field in our region. The lack of development of this field in our country is also a challenge to face since it requires an effort of clarification of its characteristics, demands and relevance, even within the University community.

We are currently in the production phase of the first master's thesis and the first final works in this field. It is to say that we will soon have our first graduates and this is the first step to consolidate a body of professionals trained in public communication of S& T and, as consequence, we will be able to consolidate professional actions and research.

In order to create a working space for the development of research and strengthen the institutional inclusion of this new field we have recently created the *Centro de Estudios en Ciencia, Tecnología, Cultura y Desarrollo (CITECDE)* which includes the *Programa de Percepción, Participación y Comunicación Pública de la Ciencia, la Tecnología y la Innovación.* We aim to feed this program with students and graduates of our courses as well as invite researchers from other centres with those who can exchange knowledge and experiences.

Bibliography

Cortasa, C (2012). La ciencia ante el público. Buenos Aires: Eudeba.

Dellamea, A.B. (2000).La formación de divulgadores y periodistas científicos en la Argentina. IX Congreso de Divulgación de la Ciencia y la Técnica. México. Sala de Lectura CTS-I. http://www.oei.es/salactsi/dellamea3.htm

Ramani, D. (2009). Master in science communication: an overview. Jcom 08(01)

13th International Public Communication of Science and Technology Conference 5-8 May 2014, Salvador, Brazil

Semir, V. de (2009). Master in Scientific, Medical and Environmental Communication. Jcom 08(01)

Trench,B. & Bucchi,M. (2010). Science communication, an emerging discipline. Jcom 09(03).