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Science, Media and Public.

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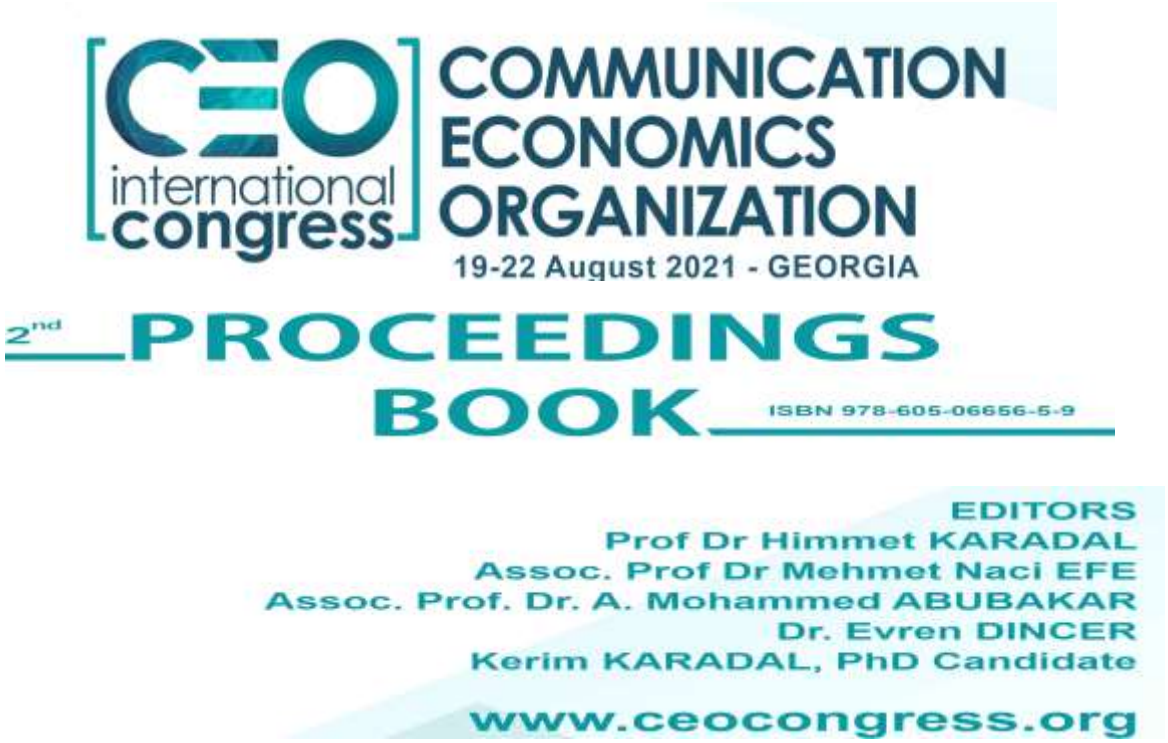

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SCIENCE, MEDIA AND PUBLIC

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ABSTRACT

This article examines the publications of the Secretariat of Science and Technology of the National University of San Luis (Argentina) through its website. This body centralizes the scientific activity of the university and has a greater relationship with the university's professors and researchers since it promotes and encourages scientific research. In accordance with the University Statute, the Secretariat of Science and Technology of the UNSL has the following missions: *"Advise and assist the Rector and other University Government Bodies in the development of scientific and technological activity and in matters related to activities related to the operation of the dual-dependency institutes UNSL-CONICET. Their functions are to intervene in the elaboration of norms and development of programs, to administer resources for the operation of research in the university, to promote and strengthen ties with national and international research institutions and organizations*".

Although it does not appear among its missions established by the university statute, the mentions of disseminating and communicating the science produced at the university, the Secretariat experiments with some publications on its website on science and technology issues. Given the lack of precision about the content to be published and the means to be used, a series of consequences are triggered, among them: disagreement and / or conceptual ignorance about scientific dissemination, lack of support and interactive work between different university units at the moment of developing scientific dissemination initiatives, development of dissemination actions that are not anchored and not very sustained over time, and the absence of trained personnel and budget to carry out this type of task; among other.

In addition, it should promote a strategy of Social Communication of Science (CSC) that develops and intensifies the scientific culture of society as part of a process of development of democratic societies with free access to information.

Keywords: Science, Media,Public.

1INTRODUCTION

This article examines the conditions of dissemination and deployment of scientific knowledge produced at the university, through the publications of the Secretariat of Science and Technology of the National University of San Luis (Argentina) on its website and in other probable supports. This body centralizes the scientific activity of the university and has a greater relationship with the university professors and researchers since it promotes, administers and encourages scientific research.

This work outlines some of the ideas presented in the "extraordinary call" for scientific communication tasks in the Secretariat of Science and Technology of the National University of San Luis, Argentina in the last months of 2020 according to Resolution 930. The work presented by the subscriber of these lines was called "Communication and Mobilization of Science and Knowledge". A question-problem guided the presentation was: How can the science developed at the UNSL be communicated more and better from the Secretariat of Science and Technology?

In the search for probable answers, it was intended to formulate a brief analysis of the communications of the Secretariat of Science and Technology of the UNSL, expressed in the Communicational Diagnosis. It was about the recognition of communicational aspects, tangible or intangible, understood as a process of analysis, systematization and interpretation. Other possibilities were the recognition of current strengths and weaknesses in the distribution of information through the use of the SWOT method.

In this case, the aim was to promote a communication map that would allow the communication manager to identify, know, analyze and characterize the elements and attributes of the organization, to identify the spaces for intervention. The idea behind this work was to find spaces for interaction and work between organisms that produce science, communicators, scientists, industry and citizens, on a certain level of equality.

Possibly, the breadth and depth of the project, which should have been written in a limited format, conspired so that it did not appear in the first three selected presentations (header and two alternates). As we believe in the validity and importance of the arguments raised in the project-idea of November 2020, we reinforce here the argumentation of the ideas originally presented.

2COMMUNICATING SCIENCE

Although it does not appear among its missions established by the university statute, the mentions of disseminating and communicating the science produced at the university, the Secretariat experiments with some publications on its website on science and technology

issues. Given the lack of precision about the content to be published and the means to be used, a series of consequences are triggered, among them: disagreement and / or conceptual ignorance about scientific dissemination, lack of support and interactive work between different university units at the moment of developing scientific dissemination initiatives, development of dissemination actions that are not anchored and not very sustained over time, and the absence of trained personnel and budget to carry out this type of task; among other.

In addition, it should promote a strategy of Social Communication of Science (CSC) that develops and intensifies the scientific culture of society as part of a process of development of democratic societies with free access to information. Science faces challenges on multiple fronts. Science journalism can enrich understanding of science and also prevent misleading claims from going viral. With ever-evolving digital technologies, mobile devices, and social media platforms, the entire media landscape is changing and so is science journalism. New media platforms are expanding access to science information.

Science must be communicated by scientific institutions, scientists and popularizers. Miquilena (2010) highlights that "the public communication of science and technology (CPC) must be seen from the perspective of information as a public good and a social service" (p.13).

Eliseo Verón (1988) raises four levels of communication based on the product (scientific knowledge), the senders and the recipients:

"1) Intradisciplinary endogenous communication, in which the enunciator and the addressee are located in the situation as scientists working in the same sector of the discipline. 2) Interdisciplinary endogenous communication, which is the characteristic of research that brings different disciplinary fields into contact within scientific institutions. 3) Endogenous trans-scientific communication, which is often called "scientific dissemination". In it, the enunciator defines themselves as a scientist, responsible for the production of knowledge, the recipient is not a scientist and has its origin within scientific institutions. 4) Exogenous communication about science, which is the most frequent situation of dissemination in the media today and the one that has its origin outside of scientific institutions. In it, the enunciators and the recipients are not the producers of the disclosed knowledge" (Verón, 1998, p.155).

As Veron (1998) has expressed, the sciences constitute, in the first place, a set of institutional facts and the researcher has a non-liberal profession, since science is done within an institutional project of a collective nature, within universities or science organizations Their activity is carried out within a community, together with other researchers. Scientific

institutions give rise to organizational phenomena such as the collective norms that define the objectives of the organization, recruitment, human resources, the technological infrastructure of laboratories, hierarchy of power, budget logic, administrative management and permanent control of the quality of the work done.

3.PUBLIC COMMUNICATION OF SCIENCE

The Public Communication of Science tries to reveal the processes and the socio-political context of the production of Science and Technology, the results of research or technological applications and the establishment of a dialogue with different social sectors.

It is understood that a news item is the communication of a relevant, current fact that is communicated. Scientific activity can be news for:

- The institutional activity of the secretary of Science and Technology of a university.
- The realization of an unexpected discovery within the university.
- The publication of partial or final results of a research project.
- The approval and / or implementation of a research project.
- Obtaining prizes and recognitions from scientists, researchers or research groups

A strategy for the social communication of science of a scientific body must have as its main objective to make the results of the research known to the public, increase public understanding about the issues that are being investigated in the university, promote interest in the science and the benefits it can bring to improve quality of life and social well-being.

Through these considerations, it was possible to observe that the evolution of extension activities at the UNSL, related to scientific dissemination, are almost nil, or are carried out sporadically, in relation to other types of activities carried out since the scopes of extension. In its interface with research, it tends to generate projects and programs for technical assistance, linkage, transfer, among others; about problems that are identified in the social environment.

The actors in the process of social communication of science are the International Scientific Organizations, the Ministries of Science and Technology, the Scientific Organizations, the industry, the Institutions of Higher Education, with all their resources, the media, and the public.

Jensen and Gerber (2020) propose a new model and adopt a definition of “evidence-based scientific communication” as a viable way forward. By adapting the language used by Sackett et al. (1996), p. 71, advocates the "conscious, explicit and judicious use of the best current evidence in decision-making" on scientific communication. In practice, science

communication involves combining professional experience and skills. By professional expertise is meant “competence and judgment” that scientific communication professionals acquire through experience and practice, refined over time through empirical evaluation (cf. Sackett et al., 1996, p. 71). There are numerous indicators of such professional experience in science communication, including:

- Apply social science research and theory when designing science communication activities to avoid known pitfalls. and improve the chances of success.
- Plan, develop and apply objectives in a logical way. to address the needs of specific stakeholders or audiences.
- Follow good ethical principles, including information, consent to participation, and responsible data protection and management.
- Be open and transparent about the nature of funding, the organizations involved, and influences on the design of science. communication activities
- Ensure that appropriate and relevant communication skills are developed and applied for a given scientific communication challenge.
- Be inclusive and welcoming to those who are often marginalized or excluded, both in the development and delivery of science communication activities.
- Willingness and ability to reflect on one's own limitations, communication objectives and strategies, despite institutional restrictions and agendas, even if this may invalidate previously accepted practices.
- Commit to continually improve practice based on ongoing collection and analysis of evaluation evidence (Jensen, 2014, 2015a).
- Be learning oriented, focusing on professional continuity. improvement and exchange of new findings to help others.
- Work to make any science communication activity as resource efficient as possible to ensure that opportunities for positive impact are not wasted. (Jensen, & Gerber, 2020).

2. STRATEGİC PLAN

A Strategic Plan for Social Communication of Science must begin by carrying out a communicational diagnosis. It often happens that “members of the university are often not aware of the importance of communication so that society knows what the university does or what it does research. Due to its size, the university has a dispersion of academic, scientific,

cultural information, etc." (Quiroga, 2018, p. 5). On the other hand, it is essential and useful "in higher education organizations, ... a communicative planning that diagnoses and starts management activities in higher education institutions, since the administration of resources is synergistically related to communication" (Quiroga, 2018, p. 6.7).

We will formulate a brief analysis of the communications of the Secretary of Science and Technology of the UNSL, expressed in the Communicational Diagnosis to think in a new strategy for science communication. It is about the recognition of communicational aspects, whether they are tangible or intangible, understood as a process of analysis, systematization and interpretation. Another possibility is the recognition of current strengths and weaknesses in the distribution of information through the use of the SWOT method.

In this case, we will promote a communication map that allows the communication manager to identify, know, analyze, and characterize the elements and attributes of the organization, to identify the spaces for intervention.

We propose an analysis based on a four-dimensional matrix:

1) Organizational Profile: survey of information on those basic elements that make up the typology of the Secretary

linked to ongoing communication actions. It is a dimension of analysis that draws a general map that encompasses its structural dimension, its singularity, its policies and its historical communicational orientation.

2) Environmental Design: survey of the state of the Environment in which the Secretary of Science and Technology operates. The environment, in communicational terms, includes all those specific elements that are linked to the identification of the Secretariat of Science and Technology (UNSL).

3) Relational System: analysis of the different communicational relationships that circulate and permanently go through the Secretary, both internally and externally. This dimension of analysis facilitates the realization of a graph in which the multiple internal and external spheres and the formal and informal circuits of contacts, interactions and reciprocal influences between the different audiences are integrated.

4) Channels and Supports: evaluation of the quality and modalities of the different channels and supports that the Secretariat has and uses regularly.

Once the analysis is completed, a set of communicational problems will be identified for which various alternative solutions will be proposed. After the discussion and interpretation of the data and information already processed, complementary surveys may be carried out. Subsequently, a Strategic Plan for Social Communication of Science will be designed as a

proposal for action and proactive management aimed at providing scientific information in an affordable and understandable way, the results of the research, promoting public understanding of the issues that are being investigated in within the university and promoting interest in science and the benefits it can bring to citizens.

4. MOBILIZATION OF KNOWLEDGE

If we understand scientific communication as the management and transmission of scientific knowledge to the rest of society and that in this process it is necessary and beneficial for an exchange of opportunities and ideas to take place between researchers, scientific communicators and citizens, we must advance in the search for the expansion of that of a mobilized knowledge (Quiroga, 2020 a, b).

While the social communication processes of science focus on providing knowledge to the public about the endogenous research activities of a certain institution, the idea of mobile science is based on the deployment and sharing of research results with citizens as long as users. Regarding the integration of these in the process of knowledge production, in peripheral contexts in developing countries, it is not usual to notice the structural dimensions that operate on the practices of scientists who usually open or close the possible courses of action of the investigations. In this sense, Naidorf and Alonso (2018) argue that the mobilization of knowledge should be understood as the use of evidence and the results of research for decision-making in public policies, efforts to share research results with users and the actions that allow to leave the knowledge ready for the action and its intervention through interlocutors. With these expressions, the use of scientific knowledge should converge towards the need for recognition of non-academic interlocutors as part of the knowledge production process (Naidorf and Alonso, 2018).

5 OBJETIVES

Objectives: Articulated with the work plan to be developed

General objectives

- Exposure to the public of the results of the UNSL research, increased public understanding of the issues being investigated within the university and generation of actions and efforts to share the fruits of the research with users.
- Specific objectives
- Carrying out a Brief Communicational Diagnosis of the Secretary of Science and Technology of the UNSL 2020-2021.

- Recognition of Sources of Scientific Information
- Production of materials for Social Communication of Science for various media.
- Singularization of the Information directed to the different media, to the participating actors, taking into account the multiplicity and diversity of platforms and channels.
- Promotion of meeting routes to make the social conversation between science producers, disseminators and users more fluid and sustained,

4. Description of the activities:

a) Carrying out the Communicational Diagnosis The initiation of a process of change is understood as it recognizes the current situation of the Secretariat and its link within the university describes the different groups that make it up and interact with it. It is the first step to formulate a communication strategy whose relevant contents are the scientific processes and products that are generated in the university.

b) Construction of a Map of Actors participating in the processes of Social Communication of Science.

It is a map of the participants in the process of Social Communication of Science in the Secretary of Science and Technology of the UNSL.

c) Construction of an Agenda

- Carrying out the communication diagnosis will expose problems and difficulties that will be organized and ranked in the preparation of a report and outline of the Strategic Plan.
- Preparation of a Map of Media and Journalists linked to the dissemination and communication of science.

d) Preparation of an Audience Map

The various publics of science that may be recipients of various proposals, content and communication products of the Secretariat will be recognized. Bongiovanni (2011) contributes some elements for the recognition of the public.

- Organizations cultivate relationships with diverse audiences simultaneously
- Publics are constructions
- Audiences are dynamic
- Each organization defines its audiences
- Communication strategy is impossible without the recognition of the public (Bongiovanni, 2011).

d) Preparation and Management of content for the different media

- Evaluation of the information available on Science and Technology at the UNSL. Inventory of Institutional and Personal Sources. Support documents. Key informants.
- Search for complementary information. Construction of communication pieces.
- Management of emerging communication pieces for different audiences.
- Use of own, university and external means.

e) Institutional management of social networks or media Social networks play an important role as a source of information and as a means to configure public discourse on research and science. Along this path, it is recognized that "virtual social networks quickly form feedback opinion matrices through an immediate feedback process that influences private and collective agendas, governments, political parties, public and private institutions, NGOs and social networks, gestating the creation of decisions. decision making and actions around a specific issue or problem" (Miquilena (2010, p. 6).

6. CONCLUSION

At the end of the communication intervention, it is proposed to carry out a communication management audit constituted as an effective tool to visualize the opportunities and strengths, weaknesses and threats of the operations, tactics and strategies in the university body surveyed.

Through these considerations, it is considered that it is possible to organize a scientific public communication plan for that UNSL Secretariat, deploying scientific knowledge to multiple actors-audiences such as other research centers, universities, scientific organizations, researchers, the government, funders of social research, industry and the general public. It is assumed that each actor, as a member of the audience, will need different information and content to generate symmetrical ties with the university.

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