



Regional Report: Open Science & the Decolonization of Knowledge International Webinar Series Latin America and the Spanish-speaking world (English)

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Prepared by:

Luisa González. Universidad of Los Andes. Faculty de Education

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Webinar details

Webinar title: Open Science & the Decolonization of Knowledge: Latin America

Date: Thursday, November 21, 2020

Time: 9 a.m.

Participants attended: 20 people

Webinar agenda

Moderator and Rapporteur: Ms. Luisa Fernanda González Pineda. PhD candidate, University of Los Andes

Welcome remarks (3min):

Ms. Luisa González

Speakers (15 min each)

Dra. Sylvia Schmelkes. Academic Vice-Presidency. Universidad Iberoamericana. Ciudad de México and Tijuana, México.

Dra. Silvia Restrepo. Vice-Presidency of Research and Creation. Universidad de Los Andes, Colombia.

Dra. Irma Flores. Associate professor at the Faculty of Education at Universidad de los Andes. Coordinator of the HUB Colombia of the Knowledge for Change (K4C) consortium, of the UNESCO Chair in Community Based Research and Social Responsibility in Higher Education.

Closing remarks (5 min):

Dra. Irma Flores

Questions and answers with participants (25 min)

Speakers presentations

**Irma Flores. Open science beyond open access: For and with communities.
A step towards the decolonization of knowledge.**

She made the presentation of the OS strategy and began his talk with an excerpt from the book "The open veins of America" by Eduardo Galeano:

For those who conceive history as a competition, the backwardness and misery of Latin America are nothing more than the result of its failure. We lost; others won. But it happens that those who won, won because we lost: the history of underdevelopment in Latin America integrates, as has been said, the history of the development of world capitalism. Our defeat was always implicit in the victory of others; our wealth has always generated our poverty to feed the prosperity of others: empires and their native caporales. In colonial and neocolonial alchemy, gold is transformed into scrap metal, and food becomes poison.

With this fragment, attendees are sensitized about the null access of native peoples to the possibility of sharing the ingenious and subtle ways in which knowledge is generated daily, on a day-to-day basis, to live and survive. From the perspective of those who uphold the power of science, it is considered that there is nothing of science in that, which, if anything, can be described as common sense.

Silvia Restrepo. Declaration of open science for the Universidad de los Andes

This presentation focused on the socialization of the declaration of open knowledge for the University of the Andes. Said declaration aims to offer open access content of high academic quality produced by university researchers so that they are available to the general community, that is, local and international, and that they can freely consult.

The university is aligned with the conviction that open knowledge allows rapid dissemination and access to content and encourages collaboration. It takes up the presentation of the Open Science initiative presented by Irma Flores and relates it to the scientific advance available to all. The experience with Covid-19 has traced a different path, because obtaining the sequence of the virus almost immediately after producing it is the path that should be followed, especially on issues critical to human well-being in health and agriculture issues.

The university's initiative is to become an institution that encourages and promotes open knowledge so that each professor and each student has the freedom to choose the path they want, the interesting thing is that it is not an imposition. One aspect to take into consideration is that making a statement is very easy: it is written on paper, the media is called, the statement is made and that is enough. What is important is to identify the actions that must be followed so that from the work at the university, the declaration transcends the paper and becomes a reality

One of the actions carried out at the university was to define the university settings in which the declaration would affect. In this way, nine areas were established that were explained in detail to have an understanding of the implications of making open knowledge at Universidad Los Andes and to know the new actions for each one that has been thinking about.

⇒ The articles.

In the academy, problems around articles, APC (articles processing charges), and the policy of large publishers that impose double expenses or payments for publishing an article in an Open Access or Open Access journal is known. The university does not want to become a financing entity at the service of large publishers, in that sense it has carried out two major actions. The first, at the national level, is active participation in a negotiating table with the large publishers, because their policies are rejected. The second action is a very detailed analysis of the importance of open access in different areas. This, because the subject of open access does not emerge out of anywhere, on the contrary, it requires a thorough analysis to establish whether it is feasible to do Open Access in the short, medium, and long term.

⇒ Journals.

The journals currently edited by Universidad Los Andes are all open access. However, there is a contradiction because the university pays the big publishers to have access or to publish. It is at this point that a political decision must be made to publish in open access without considering the expense incurred.

⇒ Books.

In this, the issue of licenses and questions about what do you want? Do you want to give access to a PDF or a streaming book for interaction and reuse? These questions are strong because it is insufficient to give access to a static PDF, what should be allowed is an interaction with the book so that other works are derived. Therefore, creative commons licenses, with all their implications, take on the importance

⇒ Software and hardware.

Arguably, this scope is relatively easy due to the availability of many many repositories and licenses for the software that allow open access use. The most important thing in the academic community is the culture that not necessarily if you put it in open access, then you can't make a commercial derivation of your software and hardware. These are two different topics, however, the most important thing is to make it open access as soon as possible

⇒ Open the names of the peer reviews.

Knowing who reads and evaluates academic production contributes a lot to transparency and credibility because it avoids false conflicts of interest and biases. This has been the area of greatest resistance in the academic community since it is considered that knowing the name of the colleague who reviews the publications can cause him to limit himself in the comments and make an unbiased evaluation.

⇒ Research data.

There are international protocols in this area and the university is interested in the Go-Fair initiative because it is easy to access, reuse, and interoperate. The purpose is not to leave the data simply operable for the person of the discipline, but rather to be easily shared.

⇒ Institutional files and documents.

The challenge is to achieve alignment with the legislation of each country and habeas data. Care must be taken with sensitive issues in Colombian legislation, for example with the use of information from minors.

⇒ Laboratory and workshop infrastructure.

To put it in context, Los Andes University is a closed university and there are turnstiles and security barriers to enter. If the goal is to open a laboratory, it is necessary to change the way the university is presenting itself to the community, and that is one of the plans that the rector has. An example of this change is the construction of the new library that will be public. All laboratories and workshops have to be accessible, and as expected this is the second issue where it generates opposition among colleagues.

One of the first actions to be taken at the university is the creation of spaces in the neighborhood where the university is located so that the community can work with them. They are spaces in which it is expected to co-build with the community. The laboratories and workshops are expected to be opened to the scientific community, however, the idea is not to offer them to academics from other universities, but the communities. The objective is to offer the privileges that are had in the university and in this way to promote the democratic co-construction of knowledge.

⇒ Intellectual property patents.

This aspect has not been solved at the university, as it is part of the declaration, it is required that all processes leading to a patent go through phases, because due to their intellectual property nature they will continue to be protected and have no open access.

Finally, a brief synthesis of the work carried out by the university is presented: 1) writing the declaration, 2) defining the actions that must be implemented, 3) establishing the areas, 4) defining for each area the

audience with whom the university wants to co-build and finally in each area what new actions should be done specifically to make open

Sylvia Schmelkes. Open science, epistemological dialogue and participatory action research

She presented arguments in favor of bringing together four processes in the knowledge generation processes and the training of new professionals in universities:

- Open science
- Interdisciplinary and the gradual transition to transdisciplinary
- Epistemological dialogue and intercultural education
- Participatory action research

In the final part, he presented the scope of what has been developed at the Universidad Iberoamericana in Mexico City.

Open science

The open science movement poses a fundamental paradigmatic transformation in the traditional way of doing science. Knowledge belongs to everyone and in that sense, it is given a community conception of scientific work, it is the community that controls itself, monitors the quality of its process, and compliance with the ethical principles that should govern scientific work. Therefore, it must be explicitly democratized and be a good of humanity.

As a paradigmatic change, it faces great barriers: 1) Higher education institutions and research centers have been relieved by large lucrative companies, because they are producing a large part of the knowledge, generated both in technological innovations and in basic research, 2) Laws for the protection of intellectual production protect the private appropriation of the knowledge generated, 3) the strategies to encourage researchers to prioritize the publication made in journals that are mostly not open access and 4) the dissemination of knowledge is in the hands of some companies.

Research that is published openly also has several problems in democratizing access to knowledge. On the one hand, technology is required for production, conservation, distribution, and access. Another problem is related to internet access, in Latin American countries there is still a lot to work on in this regard.

Higher education institutions that decide to focus on open science will run into some challenges, one of which is that their libraries will have to continue to buy expensive databases, journals and books.

There are also possibilities for open science and higher education institutions can start with several actions:

- Acquire open and collaborative software.
- Open publications must be free and digital
- The production of knowledge should be focused on being collegiate, collaborative, interdisciplinary, inter-institutional, and international.
- Research should contribute to solving real problems and in communities that need these interventions.

- It must be recognized that both basic research and theoretical production are essential.
- To introduce the next topic, it is necessary to mention that although open science is important, it is not enough.

Interdisciplinary and the gradual transition to transdisciplinary

The problems of humanity are complex and although the traditional and disciplinary way of doing science has made great advances for humanity, barriers are still found when the problems are holistic and require an articulated confluence of different disciplines. In some cases, giving the problems a disciplinary vision has brought unexpected consequences to the community, as has been the case with pesticides and transgenics.

To talk about interdisciplinary and its transition towards transdisciplinary, it is pertinent to talk about what should not be promoted in higher education institutions, such as the case of multidiscipline, which refers to the simple coexistence of specialists from different disciplines, which is insufficient because an interrelation is needed. Thus, interdisciplinary appears in which the disciplines are related to giving a comprehensive look to reality, dialogues and logical understandings of each one are encouraged. When talking about transdisciplinary, it refers to the production of knowledge that has broken the barriers between disciplines

For this reason, it must begin with the generation of knowledge and the training of new professionals from an interdisciplinary perspective and gradually move towards transdisciplinary. In this way, it will be possible to contribute to the SDGs effectively

Epistemological dialogue and intercultural education

The mistakes of science to solve complex problems of humanity, the damage that the use of scientific knowledge has caused, especially to the environment, and the possibility of surviving as a species on the planet must lead all those who consider themselves scientists to an attitude of humility and openness. It must be recognized that there are other ways of producing knowledge, which is not unscientific, they are non-scientific, and that they are proving its usefulness for humanity not only from an instrumental perspective since they even shake the meaning that is given to existence.

A different way of knowing is represented in the ancestral knowledge of native peoples, which has opted for the test over the centuries and shows its effectiveness. Knowledge for the conservation of diversity, the protection and cultivation of a healthy environmental environment starts from philosophical premises contrary to those of the West, which maintain that the human being is the pinnacle of creation and must dominate nature.

The ancestral knowledge of indigenous peoples maintains that the human being is one more being of nature. Nature is made up of living beings and the earth is sacred. Harmonious coexistence with nature is necessary and therefore a measured use of the resources that the earth provides us must be guaranteed.

Indigenous peoples have conserved diversity, where they live, there is biological diversity, cultural diversity, and biocultural diversity. From the western culture, they have been discriminated against, their language and culture have been taken away. For the sake of science, a great stock of knowledge has been destroyed and education systems have denied access to this knowledge to the majority population because a true intercultural approach to education has not been fostered.

Participatory action research

Knowledge cannot be generated or applied in individual social, economic, political, and environmental transformation, nor can problems be solved or sustainable development objectives can be achieved. To do so requires the participation of the communities that can contribute to solving the problems. This is achieved

through Participatory Action Research, which, well developed, makes those who have problems become those who contribute to their solution.

It must be promoted, maintained firm, advance, and do school. An example is a chair that convenes these webinars: K4C, Knowledge for Change, thanks to the impulse of Dr. Budd Hall and Dr. Rajesh Tandon

What has been done at the Universidad Iberoamericana

The university's frame of reference is the apostolic preferences of the company of Jesus worldwide: discernment, the accompaniment of young people, care of the common home and are aligned with the 2030 development agenda.

They approach open science through open source publications, free digital publications, access to free software, priority to interdisciplinary research, and the strengthening of national and international networks. They have designed an undergraduate and graduate educational offer based on problems such as migration, cities, Peace and governance, inequality, sustainability, and territory.

They have mainstreamed interculturality, gender, and sustainability, and have tried to provide the training processes with an intercultural approach. Thus, the investigations promote epistemological dialogue and there is a diversification of the students by incorporating the indigenous population. They are also participating in the K4C chair and aspire to be the Mexican Hub that promotes this methodology.

Finally, he proposes that the possibility of the four ruptures presented to come together be debated. The pandemic should make us rethink their role as institutions of higher education because the problems that affect the majority and marginalized minorities have become more acute, have become more complex, and new ones are emerging. Universities are called to contribute to transformation to improve the well-being of societies from a justice perspective.

Questions and answers with participants

- The National University of Colombia for several years has been developing, through the Regional Development Institute, a project called living classrooms for peace in which they work, mostly with the university population that is of indigenous origin. At various times they have sought to link with the Universidad de Los Andes, the challenge is that from the Universidad de Los Andes conditions are generated so that the possibility of starting to invite university students to have an exchange with these students is viable. This becomes a possibility to continue promoting transformations within the Universidad de Los Andes.
- At this time and in these circumstances, everything indicates that if ties are not generated, forms of solidarity and fairness are not built that allow mobilization, the only thing that will be achieved as humanity to continue perpetuating its destruction.
- At the University of Los Andes, projects and programs have been promoted to work with the community that lives nearby. Some have developed well, others have not. The negative results are attributed to the conception that continues to be maintained from the place of academia and privilege
- One of the great challenges that universities must face in this transition towards open science is to change university structures so that they favor and allow it. The traditional university grew an

inward vision, very disciplinary and of excessive protection of its own productions of knowledge. The university must face its organizational and structural barriers, seek strategies that help to break them down, and learn from new universities that have been born and raised under an interdisciplinary organization.

- As academics are linked to universities, a very great individual effort must be made. Although there is resistance from traditional universities to preserve the institutional structures and their reputation, it is essential to continue the dialogue on these issues to strengthen this other vision. These efforts must be clear to gain the attention of the authorities at all levels and thus create conditions for these initiatives to move forward, just as participatory action research has achieved, which resists despite institutional resistance.
- It is necessary to reflect on a new architecture for universities because they are preserved as imaginary that knowledge is inside, the elitism of the disciplines and the mysterious work done by academics are supported, and the power of academic knowledge is increased. All these imaginaries make it continue to be believed that everything that is outside the walls of the university is not knowledge
- We are on a very interesting path thanks to the pandemic because we are more connected than before and in search of new spaces of confluence and collaborative dialogue.