

Can open and collaborative science meet social needs?



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1. Executive Summary

- State revised research objectives, and how they relate to OCSDNet's initial [Themes](#) and [Objectives](#).

The research objective seeks to analyse under which conditions open and collaborative science can cooperate (or obstruct) in effectively using knowledge produced to attend to social problems. This means, more specifically, to: (a) identify the formation of collaboration networks as well as the different actors and elements that take part in them; (b) analyse the means of production, circulation and sharing of knowledge (communication and collaboration platforms, research instruments and tools) and sorts of outputs produced; (c) single out the factors and motivations that lead researchers to undertake specific problem agendas, conceptual and methodological frameworks, problems, and collaboration platforms; and (d) provide a reflexive and participative review of the engagement of science in social problems that includes the stakeholders. The orientation of our project, then, aligns with the theme of potential impacts of open and collaborative science. Our objectives can be linked with two of the network objectives in particular. The first is concerned with identifying the barriers that stand in the way of effective social use of knowledge, while the second, in a general sense, attempts to contribute to the emerging field of open science by means of scientific findings and policy recommendations.

- Briefly describe the core activities undertaken by your project and associated methods

The project core activities included data collection, analysis and dissemination. We started by identifying networks of knowledge production, mapping their knowledge outputs and assessing actual participation and ideas about open science with researchers. We also examined policy documents related to our case studies and to open science in general. Dissemination strategies included presenting our insights and results in local and international academic meetings, but also setting up two workshops which included colleagues from social sciences, and also researchers and practitioners involved in our case studies and in open science initiatives.

- Briefly outline key observations and project findings

Science often contributes to the definition of social problems. The production of knowledge is, in this context, hardly ever neutral. More often than not, research agendas remains closed to concerned stakeholders in practice: even when science is being conducted as open, participative or collaborative, stakeholders may lack the necessary competence -be it cognitive or political- to actively take part in the orientation of research agendas.

- Briefly outline main lessons learned and recommendations for future work

Enabling spaces for stakeholders to organize politically (while retaining their autonomy) in the face of social issues could be a means of empowerment. This includes but also exceeds the ideas generally proposed under the label of citizen science, since it is not only entails participating in data collection and dissemination but also becoming involved in the definition of the issues at stake and in the orientation and undertaking of the research efforts intended to address these issues.

2. Research Problem

- State your research question and describe research approach/methods

Our questions are aimed at assessing potential impacts (positive and negative) of open and collaborative science, especially regarding the social use of knowledge by local peripheral societies. The central research question, therefore, is to determine under what conditions can open collaboration networks contribute to an effective use of knowledge in peripheral societies; which consequences are associated to more or less open networks, and what is the specific role of the technical organization of open research collaboration. This is to ask:

Which factors affect (positively and negatively) open and collaborative science within these networks? What does openness mean in their respective contexts?

How are Latin American research groups integrated into international research networks? What is the role of epistemological and technical motivations, of international visibility, and of the social use of knowledge, respectively?

Which are the mechanisms of knowledge circulation and sharing in these scientific networks? To what extent are they “open” and collaborative? Which are their facilitators and constraints?

Who are the most frequent partners and how is power and decision-making distributed (including research agendas) within the networks? What other stakeholders participate in the formation of these networks besides research teams themselves? Which are the governance structures of these scientific networks? How do they affect the open and collaborative character of these networks?

Which are the variables determining the Latin American research groups participation in more or less open or collaborative networks? Which is the role of traditional incentives such as social and economic capital (recognition and funding)? How are the technical, institutional, and epistemological factors affecting this traditional model of scientist’s motivation and exchange?

What is the role played by the international cooperation policies in each country in regards to the integration of collaborative networks? Do South-South and North-South scientific networks operate in the same way, in terms of the adoption of open and collaborative science mechanisms and values? At last, does openness contribute to the adoption of research agendas more connected to social problems?

- If your research problem has changed since project inception, please explain why/how.

The research problem has remained the same for the most part but acquired new and richer insights from the two new case studies. The final research steps, once integrated the incoming results from the different methodological approaches, expects to achieve a suggestion of an empirically-based typology of the various configurations regarding knowledge production, circulation and use at the different levels and by several social actors.

- How has the literature relevant to your project changed since you commenced your project? Have there been new developments in the last 2 years on your topic? Explain.

Changes occurred mostly in regards to the empirical aspects of the project. At the same time, and since we started the project, we have been witnessing an expansion of the literature concerned with open science, especially in regards to citizen science and case-studies in areas of knowledge such as ecology and conservation biology. The literature documenting Latin American experiences is, however, more modest. Some more critical, theoretical approaches to public participation in science have appeared recently, but they seem to be scarce and refer mostly to the developed world. The volume *Remaking Participation: Science, Environment and Emergent Publics*, edited by Jason Chilvers and Matthew Kearnes (2015) is a recent example of this.

3. Research Objectives and Findings

- Describe your project's specific research objectives, in relation to the objectives of OCSDNet as a whole, and how each objective has been achieved. Comment on challenges or barriers, if any.

As summarized above, our more specific research objectives sought to:

- (a) identify the formation of collaboration networks as well as the different actors and elements that take part in them;
- (b) analyse the means of production, circulation and sharing of knowledge (communication and collaboration platforms, research instruments and tools) and sorts of outputs produced;
- (c) single out the factors and motivations that lead researchers to undertake specific problem agendas, conceptual and methodological frameworks, problems, and collaboration platforms; and
- (d) provide a reflexive and participative review of the engagement of science in social problems that includes the stakeholders.

These objectives aligned with the theme of potential impacts (positive and negative) of open and collaborative science. Taking our background in science, technology and society studies as a starting point, we understand the impact of new devices -in this cases, of open science technologies, processes and practices- not as mechanical causation but rather as *co-produced outcomes*. This means that new objects and processes are not passive entities that yield automatic changes wherever they impact upon, but can be transformed through practice. These transformations, on the other hand, depend on the kinds of social, economic, institutional and technical contexts where they develop. Over the course of this project, we have selected four case studies in which very different configurations of social, economic, institutional and technical variables are implicated, as to assess the nature and impact of openness in each.

Two of the network objectives relate quite directly with our project objectives. First, we are particularly interested in identifying the barriers that stand in the way of effective social use of knowledge. This objective takes into account the long-established dynamics of production and use of knowledge in Latin America, where scientific knowledge fails to meet social demands

more often than not. The second objective attempts, in a more general sense, to contribute to the emerging field of open science by means of scientific findings and policy recommendations. This objective is aimed at incorporating more critical views on open science.

- Describe your project's findings - what do your findings suggest about the nature/context of open science in development?

Over the course of this project we have enquired into the conditions under which scientific knowledge (produced through different kinds of openness according to each case) is or not used to satisfy social needs. Taking social use of knowledge as our main concern, there are emerging meaningful dimensions that show vital aspects which, up until now, have been scarcely and superficially tackled in the mainstream of open science: the competencies, skills, organizational forms, and social resources (economic, political, and cognitive) deployed by the actors constituted in the processes of knowledge production.

In all the cases under study there is a specific configuration of public problems/issues as social and cognitive realms which delimit that which is disputable, expressible, and cognizable. Therefore, the definition of the problematic framework makes certain knowledges possible. Instead of being universal and addressing "given" social problems, both have an influence on each other -that is, social problems and scientific knowledge are mutually coproduced.

One certain type of actor, -"driver"-, was found to be of particular importance. The driver is initially engaged in mobilizing scientific knowledge in a particular way in pursuit of a particular social use and is a highly active and influential element in shaping the public problem. The kind of driver and the role he/she/they play/s is crucial to understand the dynamics of knowledge production, use and the 'openness degree' (other actors' participation) that can be found in each case.

Furthermore, the constitution of the public problem can be characterised by varying degrees of conflict. The degree of conflict has an influence on its configuration and on the possibilities of intervening into the social issue. In any case, the possession of competencies and resources - interactional, technical, material, legal- is a prerequisite.

The material dimension, in particular, does not determine by itself the practices of production and use of knowledge, but it does facilitate certain "conditions of possibility" for the establishment of more or less collaborative relations of production, access to the products of science, and their eventual (re)use. The material dimension is thus linked to the whole co-production process in each of the contexts analysed:

In the case of Chagas disease research, for instance, molecular biologists often imposed their own perspective on the public problem and play the role of "drivers" of the process. Therefore, very specific skills and resources for translation are required in order to obtain the aimed therapeutic devices. These competencies and resources are not only technical or financial, but they are also legal or relate to the pharmaceutical industry exclusive know-how.

The question is rather different for the Jáchal-Veladero mining controversy. Translation operated here upon both its socio-cognitive content and on its criteria of defining what is and what is not problematic. This conversion implicated particular forms of social relations, characterised by modalities of collaborative knowledge production, certain modes of political organization: the constitution of local stakeholders grass-roots movement, the web of political alliances with diverse stakeholders and, lastly, socio-cognitive such as knowledge of technical problems, defining analysis criteria, and drafting reports, mobilising university laboratories and

selecting and enlisting national and international scientific actors.

Different disciplinary regimes have a significant influence on the intersection between “use of knowledge” and “open science”. Regimes anchored to a strongly established discipline integrated into international agendas were guided by the rule of mainstream science in their approach to public problems, contradicting their own rhetoric of social relevance. This is the case with molecular biology and applied genomics in the study of Chagas and other neglected diseases: despite being “formally” produced as open knowledge, the competencies required to effectively use this open knowledge acts as a barriers, both for the “non-specialist” scientists (or those in peripheral contexts) and for potential outcomes as tangible products; the participation of “non-scientific” actors is, on the other hand, highly limited.

In contrast, the processes of co-production around the Jáchal socio-technical dispute unfolded through the confluence of various disciplinary fields with a less specialization and international integration, and therefore contributed to producing a scenario characterised by lower levels of restriction. This enabled the local grassroots movement to be constituted by non-scientific members and “non-specialist” scientist allies, who managed to intervene with remarkable impact.

In the case of strategies for species conservation, the “driver” is originally situated within the field of environmental studies/ecological conservation. However, this field is less structured along disciplinary lines and therefore more permeable. On the other hand, the knowledge mobilised is gathered from prior problems: soils, environmental systems, climatic systems, studies of human action, etc. The cognitive problems of this type of discipline, whose empirical objects are distributed on a wide-ranging regional scale as is the case with conservation biology, mean a greater possibility of openness towards process of open collaboration, both in terms of the use of technological infrastructures and the intensive use of human collaborators.

The social sciences, in this disciplinary regime, present a special characteristic: on the one hand, they make the frontiers between knowledge producers and the data-providing subjects more nebulous and, on the other hand, are less clearly demarcated than “hard” sciences. The disciplinary investigations are inscribed into paradigms as diverse as the more “scientific” research (more distanced from the subjects) that only permits access to data once they have been crystallised as such, to that of “action research” which is much closer to the notion of “science-social actor” co-production and in which the use of knowledge is constitutive of these activities.

Another relevant aspect lies in the character of the technological and productive contexts. This is defined in its relationship with social needs at the same time as constituting a focus of the approach to the question of infrastructure, an elemental node by which to analyse the modality of access to certain types of resources indirectly involved in the production of knowledge.

In the case of Jáchal the socio-technical dispute is inscribed in a context of productive relations that give rise to “exclusive knowledge”, since the “opencast” mine barely provides resources for the local populations and is incompatible with the technical forms that are effectively utilizable in the pursuit of meeting social needs. This type of exclusive knowledge is opposed by a type of knowledge mobilised by other “drivers” who question the definition of the problem as well as the closed character of the knowledge mobilised by the company and the actors associated with it.

In the case of the participatory strategies in environmental conservation in which the configuration of actors starts from a “driver” who distributes the information-collecting tasks between diverse actors, the participation of citizens as biological information gatherers assumes

a degree of instrumentalization of the process of openness, whilst the processing and analysis of the data is left to the experts.

In the research looking at social sciences in Mexico, the drivers are the social scientists themselves. The frontiers are, however, less diffuse in this case, since the knowledge is produced by the researchers interacting with the studied subjects or communities. Therefore, even if the social subjects are held to be “mere providers of information” they, necessarily, have their own representations about the problems. In this way, tensions arose between their own interpretations and those of the scientists. Varied degrees of integration are therefore possible in this context and the uses of the knowledge obtained can be the object of disputes.

In any case, the peripheral or non-hegemonic situation, both in geopolitical and scientific terms is a central element for these configurations of production and uses of knowledge.

4. Project Implementation and Management:

- Briefly describe completed activities in the table below.

Completed Activities (February 2015 - 2017)	
<i>Type of Activity</i>	<i>How does this activity relate to your research and OCSDNet's objectives</i>
1. Elaboration of methodological strategy and mapping of actors.	Identify the structural, technical, policy and cultural barriers for individuals and organizations to participate in OCS and determine how these barriers could be addressed.
2. Interviews with key informants and approach to stakeholders.	
3. Field research regarding the 4 empirical cases, including gathering documentary sources and other relevant information.	
4. Setting up of open STS repository in collaboration with CYTED Network	Contribute to the building of a new area of study
5. Organisation of the first annual workshop (see point 5)	Discuss the features of the project with relevant scholars. Support community building as well as new projects and activities.
6. Organisation of the second annual workshop (see point 5)	Interact with relevant social actors and stakeholders connected with the empirical cases
7. Presentation at relevant international conferences for output dissemination (see point 5)	Contribute to the building of a new area of study

Any Future Activities Planned?	
<i>Type of Activity</i>	<i>How does this activity relate to your research and OCSDNet's objectives</i>
1 Presentation at ELPUB 2017	Contribute to the building of a new area of study
2 Dissemination of video with highlights from second workshop with stakeholders	Support community building as well as new projects and activities
3 Prepare papers/recommendations/edited volumes with reflections and critical outlook on open science	Support community building as well as new projects and activities
4 Completion of two Master's thesis and one doctoral dissertation concerned with open science in development and its ability to meet social needs	Support community building as well as new projects and activities Contribute to the building of a new area of study
5 Collected volume in Spanish with open science experiences in Latin America drawing on the proposed conceptual framework and approach from this project (possibly similar to CLACSO's -Latin American Council of Social Sciences- open digital format)	Support community building as well as new projects and activities Contribute to the building of a new area of study
6 Completion of one Master's thesis open science in natural sciences and how it has affected practices in research teams.	Contribute to a deeper understanding of the challenges, faced by research groups, of open science.

5. Project Outputs and Dissemination

- Describe project outputs and dissemination strategies:

Workshops held: February 2015 - 2017

Name of workshop	Objectives of workshop	Outcome(s) of workshop	Number of participants present	Any relevant links to event information
Open science collaborations in the face of social demands in non-	Present the approach and the partial results of the project.	Issues associated with open science in the South	~15	http://www.escyt.org/2015/06/22/presentacion-de-libros-cct/

<p>hegemonic countries. Centre for Science, Technology and Society. Buenos Aires, Argentina, June 24-26, 2015.</p>	<p>Discuss a conceptual framework for the analysis of these processes. Share the contributions of a group of experts and colleagues who, from different perspectives, have analyzed the processes of globalization, opening of the science and uses of knowledge. Propose lines of theoretical, methodological work and objectives of action to guide inquiries about open science towards the encounter with local demands in different development contexts.</p>	<p>American context. Reviews on adequacy of concepts and methods used.</p>		
<p>Open science, participation and social issues. Centre for Science, Technology and Society. Buenos Aires, Argentina, Nov 7, 2016.</p>	<p>Present own views and approach to open science. Exchange and discuss approach and overall project outlines with stakeholders taking into account their own experience in their respective contexts.</p>	<p>The stakeholders exposed different views and experiences about openness as well as its limitations and challenges. In this way, the workshop allowed a contextualized approach to the types (not only the degrees) of</p>	<p>~12</p>	

		openness at stake and encouraged raising awareness about its implications.		
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Conferences Attended (to discuss Open Science) February 2015 - 2017

Name of Conference	Your contribution to the event	Outcomes of the conference? (collaborations, contributions, etc.)	Any relevant links to event information	
Catalysing open science collaboration in the Global South. Information and Communication Technologies and Development 2015 Conference. Nanyang Technological University. Singapore.	Speaker: Hugo Ferpozzi	Live video stream	https://ictd2015.sched.com/event/d037f7ce9c41202fbc6a36c7cb54a1b7#.VV5NB09_Okp	
Symposium: 'Science & You: Current strategies and means for action': "Social Studies of Science and Public Understanding of Science: convergence or parallel paths?" Nancy, June 3-5, 2015	Keynote speaker: Pablo Kreimer	Discussion with scientific journalists and scholars in PUS (Public Understanding of Science) to set up bridges between social studies of science and the social dissemination of scientific knowledge. Open science (together with public controversies) is precisely one of the "bridge	http://es.calameo.com/read/003299422d90901e0215d	

		topic” between both fields.		
STEPS Latin America: “Abriendo la agenda del desarrollo”. [In English: Opening up the agenda of development]. Buenos Aires, November 5-6, 2015.	Panel: Pablo Kreimer	Discussing of the relationships between production, dissemination and use of science in developing and developed countries.	http://stepsamericalatina.org/eventos/lanzamiento-steps/	
“Moving knowledge between disciplines: does architecture care about social sciences’ spatial turn?”, Denver, CO, 11-14 November 2015	Paper presentation: Leandro Rodriguez Medina	Discussing the degree of openness of architecture firms in Mexico to social sciences’ contributions on public space.		
4th International Conference on Scientific Culture. Center for Science Communication. Santiago, Chile, November 16th & 17th, 2016	Invited keynote speaker: Pablo Kreimer	“Producing science in a globalized world. A view from Latin America”	https://welcu.com/unab/culturacientific aunab	
“Have Architects Heard about the Spatial Turn in the Social Sciences? Or How to Be Creative by Ignoring Social Knowledge”. Workshop “(Dis)Connecting Circuits Affecting the Production of Knowledge in the Social Sciences”, Freiburg,	Paper presentation by invitation: Leandro Rodriguez Medina	Presentation on the main factors that encourage or discourage knowledge circulation between disciplines in order to understand how ‘open’ architecture might be to social sciences’ theories and		

Germany. Mar 16-18, 2016.		empirical analysis on space.		
11th Latin American Symposium of social studies of science and technology (ESOCITE). UTFP. Curitiba, Brazil. Jul 25-Jul 28, 2016.	Paper presentations: Hugo Ferpozzi, Pablo Kreimer, Emiliano Martín Valdez. Topical session	Discussion of open science projects and topics which included OCSDnet members and advisors, other colleagues and the public	http://www.es.esocite2016.esocite.net/download/download?ID_DOWNLOAD=10	
European Association of Social Studies of Science (EASST) meeting. Barcelona, Spain. Aug 31-Sep 3, 2016.	Paper presentation: Pablo Kreimer, Hugo Ferpozzi	Presentation of the project's bibliometric approach	http://www.nomadit.co.uk/easst/easst_4s2016/panels.php5?PanelID=3994	
Public participation in Science and Technology. SCK-CEN Academy. Mol, Belgium. Dec 9, 2016.	Discussion: Hugo Ferpozzi	Presentation and discussion at the SPIRAL research seminar, University of Liège, Belgium	http://academy.sckcen.be/en/Events/Topical-Day--Public-participation-in-Science-and-Technology-20161209-20161209-b507a141-7185-e611-80d0-ecf4bbc6e826	
"Big data y sociedad civil", III International Workshop on State, Law and Society. CONACYT Thematic Networks on Digital Literacy in the University, Universidad Autónoma de Ciudad Juárez,	Conference's keynote speaker, Leandro Rodriguez Medina	Book chapter (see below)	https://www.youtube.com/watch?v=6WrtxppNibg https://www.facebook.com/pg/juridicasderecho/photos/?tab=album&album_id=900274893450609	

26-28 October 2016.				
Enacting networks, crossing borders: An STS perspective on the internationalization of the social sciences, Workshop on Latin American and Post-Colonial STS, Universidad de Brasilia, Cardiff University, and British Academy, Brasilia (Brazil), 18-20 May, 2016.	Paper presentation by invitation, Leandro Rodriguez Medina	Article (see below)	http://luisreyes92.wixsite.com/bsb16 http://www.4sonline.org/blog/post/seminario_de_estudios_latino_americanos_e_pos_coloniais_de_arts	

List of relevant publications (February 2015-2017):

Name of Publication	Type (book, journal article, newspaper, blog, etc.)	Authors	Link
1. The co-production of knowledge and scientific issues. Dynamics of knowledge production in genomics and biomedical research on Chagas disease (1993-2016) [In Spanish: Coproducción de conocimientos y de problemáticas científicas: Dinámicas en la producción de conocimiento científico en la investigación genómica y biomédica sobre	Doctoral dissertation including chapter about open science	Hugo Ferpozzi	(forthcoming, defence scheduled for March-April)

la enfermedad de Chagas (1993-2016)]			
2. Contra viento y marea: emergencia y desarrollo de campos científicos en la periferia argentina, segunda mitad del siglo XX	Book (this collection does not address open science specifically, but it does deal with science in development, and it has been published online by CLACSO, whom agreed to offer its electronic version free of charge)	Pablo Kreimer (Editor)	http://biblioteca.clacso.edu.ar/clacso/gt/20161215020729/ContraVientoymarea.pdf
Big data y ciencias sociales abiertas: ¿por qué la sociedad civil se queda afuera?	Book chapter	Leandro Rodriguez Medina	Forthcoming (2017)
"World-System Analysis 2.0: Globalized Science in Centers and Peripheries".	In D. Tyfield (ed.) Routledge Handbook of Political Economy of Science. Londres, Routledge (2016, in press)	Delvenne, Pierre & Kreimer, Pablo	
"Contra viento y marea en la ciencia de la modernidad periférica: niveles de análisis, conceptos y métodos".	In: Kreimer, P. (editor): Contra viento y marea. Emergencia y desarrollo de campos científicos en la periferia. Buenos Aires, Editorial de CLACSO.	Pablo Kreimer	
"Un mundo de papers. La publicación científica entre conocimiento y política".	In: de Ortuzar, María Graciela (ed.), Ética, ciencia y política: Hacia un paradigma ético integral en investigación. La Plata, Editorial de la Universidad Nacional de La Plata. (2016, in	Pablo Kreimer	

	Press)		
“Public understanding of science and social studies of science: convergence or parallel paths?”.	In B. Schiele, J. Le Marec & P. Baranger (eds.) “Science Communication Today”. Nancy, PUN.	Kreimer, Pablo	
What is foreign knowledge?	Book chapter in Contributions to Alternative Concepts of Knowledge, edited by Michael Kuhn y Hebe Vessuri, 2016	Leandro Rodriguez Medina	Ibidem Publishers (Germany) http://www.ibidemverlag.de/Reihen-Schriftenreihen-Institutsreihen/Beyond-the-Social-Sciences/Contributions-to-Alternative-Concepts-of-Knowledge.html
“Cinematic depictions of SSS and PUS concepts”.	Science in Context, 2016 (in press)	Levin, Luciano & Kreimer, Pablo	
“La ciencia como objeto de las ciencias sociales en América Latina: investigar e intervenir”.	Cuadernos del Pensamiento Crítico Latinoamericano N°27 - Segunda Época.	Pablo Kreimer	http://biblioteca.clacso.edu.ar/clacso/se/20151015112309/CuadernoPCL-N27-SegEpoca.pdf
Indigenous knowledge in the social sciences: comunalidad and the challenge to Western categories.	Book chapter in Contributions to Alternative Concepts of Knowledge, edited by Michael Kuhn y Hebe Vessuri, 2016.	Leandro Rodriguez Medina Co-author: Claudia Magallanes-Blanco.	Ibidem Publishers (Germany) http://www.ibidemverlag.de/Reihen-Schriftenreihen-Institutsreihen/Beyond-the-Social-Sciences/Contributions-to-Alternative-Concepts-of-Knowledge.html
“Co-producing Social Problems and Scientific Knowledge: Chagas Disease and the Dynamics of Research Fields	Sociology of Science Yearbook, Vol. 29.	Pablo Kreimer	https://www.researchgate.net/publication/293822992_Co-producing_Social_Problems_and_Scientific_Knowledge_Chagas_Disease_and_the_Dynamics_of_Research_Fields

in Latin America”.			rch_Fields_in_Latin_America
CTS en América Latina: ¿Hacia un programa comprometido?.	Backchannels 4S (Society for Social Studies of Science. Abril 2015	Kreimer, Pablo	http://www.4sonline.org/blog/post/cts_en_america_latina_hacia_un_programa_comprometido
Enacting networks, crossing borders: An STS perspective on the internationalization of the social sciences.	Article (to be submitted to Engaging Science, Technology & Society)	Leandro Rodriguez Medina	Forthcoming (2018)

Any other outputs:

Other important links that capture project findings/impact. (Ex: Social Media activity, photo galleries, educational resources, websites used for project dissemination, blogs, etc.)

URL	Content of URL

6. Community Building

- What tools and methods have you used to reach out to and communicate with relevant communities and potential participants? What do you think worked well and what didn't? Why?

Relevant communities	Outreach Method/Tool
(e.g. policy makers, research/scientific communities, community group, etc.)	ex: online platforms (facebook, twitter etc.), word of mouth, email, other networks, conference networking etc.)
1 Mariana Sanmartino from “Hablamos de Chagas”. Public communication and didactics of science (Chagas diseases)	Word of mouth, email, academic networks, conferences, YouTube videos, online platforms (professional associations' newsletters, conferences' websites, Twitter, etc.).
2 Asamblea Jáchal No Se Toca (Hands off Jáchal local grassroots movement against mining industries in San Juan province, Argentina)	
3 Jaguararé Project (Collaborative project dedicated to species conservation)	
4 México (research/scientific communities in Mexico City, San Cristóbal de las Casas, Tijuana, Monterrey, and Guadalajara).	

5 Dominique Babini (Coordinator of open access scholarly communications projects, research and advocacy at CLACSO)	Cooperation agreements with CLACSO
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7. Impact

- How would you define the impact of your research in relation to your research objectives?

Our proposal and findings have reached diverse spaces of academia. We have presented our conceptual and methodological approach in different scientific meetings. We have also participated in discussion groups and set up our own workshops as to engage in more active discussion and co-produce knowledge with stakeholders and colleagues.

Concerning inter-subjective transformations, the reflection of scholars and practitioners about openness and its implications has been illuminating not only for the research but also for themselves. Although, in many cases, open science means basically open access, interviewees recognized that their relationship with other (social, political, economic) actors is not always thought carefully. In the case of social sciences in Mexico and in public communication of Chagas diseases, for instance, academics who have developed what we called a *transcendental integration* of internationalization are more open to influence by non-academic agendas, methodologies, and forms of knowledge diffusion. This group of scholars tend to value the socio-political implications of their research and seem to be less mainstream-science oriented. Their openness makes them a target for future research because they have been successful in producing forms of engagements (e.g. documentary making, radio broadcasting, etc.) that will contribute to open the sciences even more.

- What criteria and indicators did you use to measure and evaluate the impact of your project?

Establishing an explicit criteria to measure the impact of our project could take some more time. This could reflect in future publications citing our approach, methods and results. Collaboration with stakeholders has been intense in terms of discussion and participation, but it was not possible to establish concrete future collaboration agreements.

8. Reflective Learning on Internal Dynamics:

- What has been the successes and main challenges of your project (in terms of the way that the project was conducted)?

Our project allowed us to understand emerging or previously unexplored aspects of openness in development, aspects which also illuminate on more general issues concerning science in development and its ability to meet social needs. This, in part, was a result of incorporating new case studies during the completion of our project, as they showed very different dynamics of producing and using knowledge.

In any case, the findings did “confirm” our initial working hypothesis (namely, openness alone cannot foster development or address social needs in peripheral contexts). However, the project findings suggest there are other reasons operating behind this inability to meet social needs which were very different from the ones we could have envisaged during the formulation of our project.

For instance, we suspected that third parties would foster open data production in order to take economic or political advantage of it. Yet there were other aspects concerned with knowledge production and use that accounted for the difficulties in effectively using socially produced knowledge. This had to do with the formulation of research projects, the orientation of research agendas, the relations between different types of stakeholders and the capacities required to take advantage of such knowledge. In other words, the different dimensions of openness were not restricted to access to the data, infrastructure, or results alone.

- Does your team have mechanisms in place to capture these lessons and share them internally? If so, which mechanisms and how have they benefited your project?

Our team does not have a pre-established sharing mechanism. Lessons are mostly shared through constant interaction -for example, discussing contents for publications, elaborating reports or summaries together, or reflecting on results from events and meetings.

- Please reflect on internal project power dynamics and its influence in project development and outcomes. How did you observe power dynamics to play out? How might north-south relations within the project have also played a role? *(Note, this is not for individual naming and blaming but rather a self-reflective way to try to understand how power affects research collaboration.)*

9. Recommendations (for OCSDNet):

- How did you find the (experimental) network model that was used by IDRC to administer the OCSDNet subprojects? What were notable strengths and weaknesses you experienced?

The overall experience has been very positive. It was sometimes difficult to keep up with all the ongoing communications. In most cases, the network took notice of these difficulties and implemented different strategies as a response (i.e., modifying the monthly report format, creating the group in Google, etcetera).

- In your experience, how might a culture of shared learning be fostered/improved for future iterations of a network such as OCSDNet?
- Has feedback from members of the network had an impact on your research? (consider insight from the coordination team, advisors and peers in the network).

Feedback from network members has been extremely useful. This took place mostly at our workshops but also at different common academic meetings in which we participated.

- Do you have any other advice/feedback that you would like to provide to OCSDNet or

IDRC? (consider modes of communication, evaluation, etc.)

10. Additional Comments (optional)

- Please provide any additional comments.