



GLOBAL RESEARCH COUNCIL - GRC
AMERICAS' REGIONAL SCIENTIFIC WORKSHOPS
2023
Concept Paper

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Introduction

The Global Research Council is a virtual organization dedicated to promoting the sharing of data and best practices for high-quality collaboration among funding agencies worldwide.

As a multilateral forum for research funding agencies, the GRC provides a platform for dialogue and explores opportunities for international collaboration. There are five regions that are part of the GRC: Americas, Asia-Pacific, Europe, Middle East – North Africa and Sub-Saharan Africa.

Since 2020, amidst pandemic, the GRC shifted its activities to a virtual format. As a result, in December 2020 an Americas Region Covid-19 Virtual Seminar was conducted, facilitating connections among several STI funding agencies from the region and beyond. In order to expand discussion to researchers and provide opportunities for them to share their knowledge and expertise, the region conducted three virtual seminars on COVID-19 with specific focus on Health Systems, Research Infrastructure and Education in 2021. The seminars allowed researchers from the Americas to share best practices, responses and applications applied during the pandemic that helped to overcome faced challenges. The following year, in 2022, 11 research agencies from the region presented their funding instruments for international cooperation. This initiative aimed to increase researchers' awareness of the opportunities available for expanding international collaboration. This year, two webinars on Artificial Intelligence and Open Science will be conducted to continue connecting regional researchers and agencies and share experiences and expertise within the region.

The organization committee of the 2023 GRC Americas Virtual Seminars is composed of six agencies: National Agency for Research and Development (**ANID**), Chile, National Agency on Research and Innovation (**ANII**), Uruguay, National Scientific and Technical Research Council (**CONICET**), Argentina, Sao Paulo Research Foundation (**FAPESP**), Brazil, Natural Sciences and Engineering Research Council (**NSERC**), Canada and National Science Foundation (**NSF**), USA.

As the 2024 GRC Annual Meeting's theme is related to Sustainable Research, topics discussed within the seminars will reflect in one or other ways the topic and its three dimensions:

- Research on Sustainability;
- Sustainability of Research; and,
- Use of Sustainability Science for Society.

The general objectives are:

- to provide an opportunity for scientists and STI funding agencies of Americas to share their knowledge, experiences and research with international colleagues in a virtual workshop format;
- to increase awareness on GRC and its activities within the region;
- to incorporate a broader range of actors from the region, especially those STI funding agencies that do not partake in the GRC official activities;
- to build-up STI management capacity within the region through sharing experiences between STI funding agencies;
- to seek promotion of common principles and values related to STI within the region;
- to enhance Equity, Diversity and Inclusion (EDI) locally and across the region.



THEME I: INTERNATIONAL COOPERATION ON ARTIFICIAL INTELLIGENCE

Date: 28 September 2023

Time: 10.00 – 12.00 (GTM -3)

Artificial Intelligence has a prominent role in the development strategies of all countries, but its knowledge and application have been uneven between the different regions. Leading countries are considering AI as a principal component of their economic agendas while in some regions the scientific communities around this topic are small and their impact is still limited. While some of the applications of AI have been highly controversial, its use in sustainability issues has a huge potential to make a real impact. However, an equal development is required in order to avoid deepening structural gaps between regions. As learned during the COVID pandemic, international cooperation has proved to be an efficient mechanism to strengthen capacities and make knowledge accessible throughout different regions. Cooperating funding agencies can play a crucial role in facilitating an ethical and inclusive development of AI for the benefit of our society.

Webinar Objective: Discuss the application of AI in sustainability and the role of funding agencies around this topic. Showcase international cooperation project on AI **“Supporting research and innovation in Latin America and the Caribbean through enhanced regional collaboration”** led by ANII and funded by the IDRC.

Expected audience: Agency representatives with an interest in multilateral engagement in common topics such as AI and sustainability, academics who want to be part of international cooperation projects.

Agenda:

Moderator: Karen Lips, NSF, USA

1. **Welcome and Brief introduction to GRC** by Shaun Baron, NSERC, Member of the GRC Executive Support Group
2. **Welcome remarks on AI and Sustainable Research** by Dr. Esther Luna Colombini, Professor, State University of Campinas (UNICAMP)

Moderator: Ana Vasquez, ANII - Introduction to the IDRC project: context and lessons learned - IA as a pilot, challenges regarding engagement.

Speakers:

1. Agency representative and reflections on the process of the multilateral call - Mariana Miguez, CONICET Argentina
2. Researchers perspective on the use of AI for sustainability, and the importance of international cooperation - Dr. Alejo Silvarrey, Universidad Católica del Uruguay; and Dr. Pablo Negri, CONICET Argentina
3. NGO perspective: ethical aspects of AI - from Science to Policy. Establishing the community of practice and engagement of groups from Low and Middle-Income countries - Gloria Guerrero, Executive Director of ILDA

Panel Discussion



Possible Questions:

- What is the funder's role in promoting an ethical approach to AI, and what are the aspects that have to be considered from the funder's perspective?
- How to promote legal regulations on AI within the Americas?
- How are the Americas positioned concerning the promotion of AI and which particular issues and challenges, if any, can be found in our region?
- Is there a need to support a global or regional community of practice on AI? How can funders contribute? How can the private sector become more involved?

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THEME II: OPEN SCIENCE, INTERNATIONAL COOPERATION AND SUSTAINABILITY

Date: 11 October 2023

Time: 10.00 -12.00 (GTM -3)

Open Science is an important element of the scientific community around the globe and has to be addressed in the region in order to elevate the Americas' level of openness and accessibility to science-based information within the region. It aims to make scientific research accessible to different stakeholders in the society. Apart from making scientific knowledge accessible, Open Science also benefits inclusive, equitable and sustainable knowledge transfer.

As UNESCO mentions, Open Science:

- increases scientific collaborations and sharing of information for the benefits of science and society;
- makes multilingual scientific knowledge openly available, accessible and reusable for everyone; and
- opens the processes of scientific knowledge creation, evaluation and communication to societal actors beyond the traditional scientific community.

Webinar Objective: Promote the use of Open Science in the Americas by demonstrating its benefits and mechanisms of its implementation in different countries and different stakeholders.

Audience: STI funding agencies and broader research community.

Agenda:

Moderator: Sharapiya Kakimova, ANID, Chile

1. **Welcome remarks and Brief introduction to GRC** by Shaun Baron, NSERC, Member of the GRC Executive Support Group
2. **Welcome remarks on Open Science and Sustainable Research** by Dr. Carlos Frederico de Oliveira Graeff, Professor, State University of São Paulo (UNESP)

Moderator: Dr. Andrew J. Crawford, Professor, University of los Andes

Keynote address by Lautaro Matas, Executive Secretary, La Referencia (15 min)

Topic: Latin American Perspective on Open Science and Sustainability

Speakers:

1. ANID's approach to Open Science and its relevance to Sustainability of Research - Patricia Muñoz, Subdirector, Networks, Strategy and Knowledge, ANID, founder of La Referencia, Chile
2. Canada's experience in Open Science and Sustainability of Research – Marc-André Simard, NSERC-CRSNG, Canada
3. Colombia's experience in Public Science (Ciencia Ciudadana): Importance of Open Science for Society - Benefits, Challenges and Ways Forward. – Daniel Bernal, Citizen Activist, Aire Ciudadano, Colombia.

Panel Discussion

Possible Questions:

- What role STI funding agencies can play in promoting use and implementation of OS?
- How can we bridge the divide in OS practices and infrastructure between the Global North and the Global South?
- The majority of OS-related policies, practices, and research articles are aimed at two specific aspects of OS, namely Open Access and Open Infrastructure. What are some things we can do to integrate other aspects of OS such as Open Engagement of Societal Actors (e.g., Citizen Science) and Open Dialogue with Other Knowledge Systems (e.g., Indigenous Knowledge)
- How can we address some of the unintended negative consequences of open science practices (e.g., high article processing charges, predatory behaviors, research assessment/tenure track/funding allocation, potential negative effects on marginalized scholars, etc.).
- The urgency of the COVID-19 pandemic accelerated the dissemination of research results, even going as far as convincing For-Profit publishers to temporarily share research articles at no cost at the time of their publication. What are some things we can do to make sure that this also applies to other global challenges such as climate change, clean water, ocean preservation, etc.
- What challenges have you or your agency faced while implementing projects and initiatives on Open Science?
- How to ensure usage of appropriate data available for your research/initiative (a lot of data available)?
- The role of language for Open Science?

Table 1: Webinars Technical Information

Platform: ZOOM (YOUTUBE streaming) provided by FAPESP, Brazil

Webinar	Topic	Date	Time
1	AI and Sustainability	28.09 2023	10.00 – 12.00 (GTM -3)
2	Open Science and Sustainability	11.10.2023	10.00 -12.00 (GTM -3)



Annex I

Brief CVs for Seminar I on Artificial Intelligence

Alejo Silvarrey is an Industrial Engineer who graduated from the Catholic University of Uruguay (UCU). He holds a Master's degree in Health Environmental Engineering from the UNESCO Water Institute in Delft, Holland, and a Doctorate in Sustainable Development from Deakin University in Melbourne, Australia. Dr. Silvarrey currently serves as a highly dedicated Research Professor at UCU, where he holds the position of Director of the Habitat Center for Cities and Sustainability. He is also a member of the technical committee of the Energy and Sustainable Development Observatory. In addition to his academic role, he is a member of the operations team at the ICT4V Technology Center. In the private sector, Dr. Silvarrey works as a consultant for the firm MAR Environmental Solution, which specializes in the design, development, and management of technological projects related to sustainable development.

Ana Vásquez is the Head of the Cooperation Unit at the National Research and Innovation Agency (ANII) of Uruguay. She coordinates the project Supporting Research and Innovation in Latin America and the Caribbean through Enhanced Regional Collaboration funded by the IDRC. Ana graduated from the University of the Republic in Uruguay as a Biologist and holds an MSc in Science Communication from the University of the West of England (UK).

Gloria Guerrero works at the intersection of data, human rights, and technology. Her experience spans from leading digitalization and e-gov projects at local and national level, co-creating civil society initiatives to foster civic engagement, youth participation and open government, and managing international alliances and funds to support the development of innovative and inclusive technology for social mobilization and the protection of human rights. Over a decade, she has been an advocate for gender equality and diversity. As Executive Director of the Latin American Alliance for Open Data (ILDA), she partners with governments, international organizations, development agencies and local communities to promote the ethical use of data and to leverage the value of open data as a digital public good and its relevance for trustworthy AI development.

Karen R. Lips is a Program Director in the Office of International Science and Engineering at the National Science Foundation where she is on detail from her position as Professor of Biology at the University of Maryland College Park. Karen researches global change biology in Latin America and the U.S., studying how the loss of amphibian biodiversity affects natural ecosystems, and how human activities contribute to the spread of disease and loss of biodiversity. Dr. Lips is interested in science policy, increasing public engagement on environmental issues, promoting scientific leadership, and fostering international scientific collaborations. Dr. Lips was a Jefferson Science Fellow at the U.S. Department of State, where she worked in the Bureau of Western Hemisphere Affairs and served as an Embassy Science Fellow in Bogota, Colombia with the Instituto Alexander von Humboldt. Dr. Lips has been a Research Associate at the Smithsonian Tropical Research Institute in Panama and at the U.S. Museum of Natural History. She is an elected fellow of the American Association for the Advancement of Science (AAAS), and the Ecological Society of America and is an Aldo Leopold Leadership Fellow, and a AAAS Leshner Leadership Public Engagement Fellow.

Mariana Miguez has a degree in Political Science from the University of Buenos Aires, and has trained in postgraduate studies such as Strategic Management of Public Organizations (USAL) and in Economics and Business of Asia Pacific and India (UNTREF). Since 2006, she has been working in the National Scientific and Technical Research Council (CONICET), and is currently responsible for the America, Asia and Oceania Division in the International Cooperation Office of CONICET.

Pablo Negri completed his studies in Electronic Engineering at the National University of La Plata (Argentina). In 2006, he pursued a Ph.D. in Robotics and Intelligent Systems at Pierre et Marie Curie-Paris VI University.



After completing his doctoral studies, he returned to Argentina in 2010 and joined CONICET. He taught courses at UADE and is currently a Professor at the Faculty of Exact and Natural Sciences at the University of Buenos Aires (UBA), specifically within the Department of Computing. Dr. Negri's expertise lies in Video Analysis, Image Processing, Pattern Recognition, and Machine Learning. He has actively directed and participated in various research projects, including those related to the detection and tracking of people in videos, automatic license plate recognition, face detection and recognition, as well as body and facial gesture recognition. Additionally, he has conducted research into dynamic systems associated with temporal variables, whether from video sources or meteorological signals.

Esther Luna Colombini, Institute of Computing at the University of Campinas (Unicamp), Brazil.

Shaun Baron, International Policy Advisor, NSERC, Canada

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Annex II Breve CVs for Seminar II on Open Science

Andrew J. Crawford is a biodiversity scientist and Associate Professor of Biological Sciences and Director of the *Museo de Historia Natural C.J. Marinkelle* at the Universidad de los Andes in Bogotá, Colombia. He uses evolutionary genetics to reveal the origins of vertebrate species in the American tropics. His laboratory focuses on biogeography, taxonomy, and the conservation of amphibians and reptiles. Dr. Crawford serves on the executive council of two international scientific consortia, the Vertebrate Genomes Project and the Earth BioGenome Project, that use the principles of open science to characterize global biodiversity at the genetic level. He supports international education and exchange as an executive board member of Fulbright Colombia. After completing dual undergraduate degrees at UC Berkeley and his PhD at the University of Chicago, Dr. Crawford moved to Panama sponsored by successive postdoctoral fellowships from the NSF International Programs and the Smithsonian Institution before moving to Colombia.

Carlos Frederico de Oliveira Graeff received his Ph.D. in Physics from the State University of Campinas (UNICAMP) in 1994. After a postdoctorate at TU München as fellow of the Alexander von Humboldt Foundation, he joined the University of São Paulo (USP), Campus Ribeirão Preto, as Assistant (1996-1999) and Associate Professor (1999-2006). In 2006 he joined the State University of São Paulo (UNESP) as Full Professor. He is research fellow 1B from the Brazilian National Research Council (CNPq); member of the advisory board of Journal of Materials Chemistry C, Materials Advances (RSC); member of IUPAC Subcommittee on Polymer Terminology, and a member of Academia de Ciências do Estado de São Paulo (ACIESP). Professor Graeff was a visiting researcher at several universities around the world examples: Max Plank Institut für Festkörperforschung (MPI-FKF) and Helmholtz Zentrum Berlin in Germany; Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland, and Beijing Jiatong University (BJU), China. Former: vice president for research of UNESP, member of FAPESP Engineering Panel (2016-2017), coordinator of the Materials Science Division in CAPES-Ministry of Education (2009-2014), Scientific Director of SBPMat (Brazilian-MRS, 2012-2014). His field of interest is Materials Science, more specifically electronic magnetic resonance, biomaterials and electronic devices (solar cells, thin film transistors, etc.).

Daniel Bernal is electronic engineer and citizen activist for air quality. He is environmental activist on issues such as air quality, ventilation, wetlands and citizen science. Part of citizen groups such as AireCiudadano (CitizenAir), Red Nacional de la Calidad del Aire (National Air Quality Network) and the Latin American Coalition for Clean Air - ALAire.

Lautaro Matas is Executive and Technical Director at LA Referencia. Project Leader/Developer of the LA Reference Software Platform (LR Harvester). He studied Computer Science at the University of Buenos Aires. Since 2002 is member of the Center for Studies on Science, Development and Higher Education (Centro REDES). He was part of the technical team of the Ibero-American Network of Science and Technology Indicators (RICYT). Between 2005 and 2011, he worked at the Argentine Center for Scientific and Technological Information (CAICYT-CONICET), oversaw the implementation and coordination of the SciELO Argentina project and later the development of software for the area of patents and strategic intelligence. Between 2009 and 2019 he was part of the technical team of the Ibero-American Observatory of Science, Technology and Society (CAEU/OEI), acting as Coordinator/Developer portal Intelligo,



an open explorer of open access repositories and collections of invention patents based on natural language processing and data mining techniques.

Marc-André is PhD Candidate in information science at the University of Montréal as well as a Policy Analyst at the Natural Science and Engineering Research Council of Canada. His research focus on Open Science, Science Policy, Bibliometrics, and Science of Science. He currently holds a PhD scholarship from the Fonds de recherche du Québec and is a member of the UNESCO chair of Open Science, as well as the Scholarly Communication Lab, and the Canadian Association for Information Science. He has previously collaborated with various national and international organizations such as UNESCO, Our Research, Canadian Blood Services, and Brain Canada.

Patricia Muñoz is Director of the Sub direction of Networks, Strategy and Knowledge (REC) of the National Agency for Research and Development (ANID) since January 2020. Mrs. Muñoz is Librarian and Master in Digital Documentation from Pompeu Fabra University. She specializes in Scientific and Technological Information Management. She has developed and led projects related to accessibility and visibility of scientific activities, their results and impact. Her main lines of specialization are access to scientific information, monitoring of scientific production, scientific data management, and scientific policies. He has vast experience in the design of information services and tools for the promotion and management of scientific and technological research. such as DataCiencia and the Researcher's Portal, among others. Currently, she is a member of various commissions of experts and international networks, like the CODTA Data Policy Committee; in the Committee on Data for Science and Technology, CODATA, the SciELO Network and the ORCID Reducing Burden and Improving Transparency (ORBIT) Project. In addition, she is a founding member of La Referencia (Network of Open Access Repositories to Science), an entity that she chaired between 2016 - 2018.

Sharapiya Kakimova graduated from Kazakh State Polytechnic Institute in 1993 as a system engineer. She obtained a Master of Arts degree in the field of international relations and later her Ph.D. on Peace Studies from Hiroshima University with specific focus on public administration and its reform in post conflict countries in general and in Afghanistan in particular. She worked in various governmental institutions of Kazakhstan for six years and was responsible for external aid coordination. Dr. Kakimova has participated in many courses related to international cooperation. She joined the United Nations Institute for Training and Research (UNITAR) first as an Associate, in 2002 and in 2003, and then as a Training Assistant at UNITAR's Hiroshima Office from 2004 to 2009. From 2011 to 2013, she held teaching positions at Los Lagos University of Chile. In 2013, Dr. Kakimova joined the Chilean National Agency for Research and Development (ANID) where she is currently in charge of international cooperation and agreements' negotiations with foreign institutions related to science, technology and innovation. Dr. Kakimova's research interests are capacity building, international relations, conflict resolution and governance.

Shaun Baron, International Policy Advisor, NSERC, Canada