

2nd World Forum Principle of Scientific Publications

martes, 22 de noviembre de 2022 - viernes, 25 de noviembre de 2022

Centro de Convenciones Charles Darwin. San Cristóbal. Galápagos, Ecuador
Programa

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Tuesday 22 November 2022

Welcome and Registration (18:00-20:00)

time [id] title

18:00	[52] Registration
18:30	[53] Opening ceremony <i>Presentadores: Dr PATIENCE, Gregory (Polytechnique Montreal), Dr VILLASANA, Yanet (Universidad Regional Amazónica IKIAM)</i>
18:40	[54] Rector of Universidad Regional Amazónica Ikiam <i>Presentador: Dr REYES, Maria Victoria (Universidad Regional Amazónica Ikiam)</i>
18:50	[55] Welcoming remarks to the GSC and Galapagos Islands <i>Presentador: Dr MENA, Carlos</i>

Wednesday 23 November 2022

Plenary session: Plenary session 1 (8:00-8:30)

time [id] title

8:00	<p>[22] Women in the academia – how to promote equality – lessons learned from a qualitative study and personal experiences</p> <p><i>Presentador: Prof. SLONIM-NEVO, Vered (Department of Social Work, Ben-Gurion University of the Negev)</i></p> <p>Data regarding women in the academia are disquieting. In the United States, for example, women constitute half of those earning PhDs and, as of 2015, 51.5% of assistant professors; however, women are less likely to achieve tenure than men and represent only 32.4% of full professors (Cardel et al., 2020). Moreover, gender inequalities in science, technology, engineering, and mathematics (STEM) are notable: although women earn 54.8% of conferred baccalaureate in the social and biological sciences, and 42.4% in mathematics and statistics, women are underrepresented in computer science (18.7%), the physical sciences (19.3%), and engineering (20.9%) (Casad et al., 2021).</p> <p>What are the factors that may contribute to this inadequate condition? Women tend to withdraw from the general workforce due to two main factors: family demands and low self-confidence (Hoonakler & Schoepke, 2005; Kirchmeyer, 2006; Martinez et al., 2007; Mason & Goulden, 2004; Sears, 2003). The paper has three objectives:</p> <ol style="list-style-type: none"> 1. To present findings from a qualitative study, that the author, together with others, had conducted in the past: 25 doctoral students participated in four focus-group discussion sessions. They were asked about their experience in the university, difficulties, advantages, conflicts, their support system, and what they need to succeed in the academia. Advantages included: the ability to work in an interesting field, the ability to invest time to research, and personal development. The main problems that the women discussed in the groups were: financial difficulties resulting from low-level of academic scholarships, and on-going conflicts between the demands of their academic work and family life, and insufficient recognition of specific needs related to their female status (Wittenberg-Szekely et al., 2008). 2. To present the programs and activities that were employed by the author, who served for 12 years as the advisor to the University President on women equality, as well as the experiences of other advisors, to promote the status of women in our university (Ben Gurion University of the Negev, Israel). These activities included: personal advocacy, mentoring program, changing university's internal rules and regulations, building coalitions with key leaders in other universities, publishing on-going data, and enhancing the awareness to women's discrimination among key figures in the campus. 3. To evaluate the impact of these programs on the status of women in our university. 4. To draw conclusions regarding activities that may prompt gender equality in the academia.
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Oral session: Language (8:30-10:00)

time [id] title

8:30	<p>[40] Language barriers in academia: moving towards a more empathetic, and multilingual science</p> <p><i>Presentadores: Mrs ITURRALDE-POLIT, Paula (Universidad de Costa Rica. National Geographic Explorer), Dr PERALTA, Diego (Instituto de Ecología. Universidad Nacional Autónoma de México. National Geographic Explorer)</i></p> <p>Scientific research is mainly shared through peer-reviewed articles that are published almost exclusively in the English language. This reality is a challenge for non-native English speakers, for whom it often takes longer to read peer-reviewed publications and write their own papers, grant applications, and conference abstracts. Revisions may involve multiple translation efforts and require additional help. Journals demand or suggest using translation services that are expensive and often unaffordable, particularly for scholars in the global south. Furthermore, evidence suggests that language is a central issue in the lack of objectivity or biases during the peer-reviewed process. Comments about the usage of language are common and sometimes rude. This gives native English speakers an advantage as they don't have to deal with reviewers' hurtful comments about their writing skills or apply for extra funds to pay for revision, editing, and translation services.</p> <p>Despite some benefits that maintaining a central language could have, it reduces the impact of studies published in other languages and makes them less likely to be read or cited. Overlooking these studies can reduce scientific evidence or concentrate it in regions where English is the native language or better understood. When we fail to cover larger geographical areas and fail to include scientists and researchers from all languages, local knowledge can be lost. This may increase the dependence of non-Anglophone scientists on high English proficiency collaborators, limiting their participation at international congresses to communicate their findings and reducing the recognition of their contributions. These practices increase parachute science and decrease the diversity and equity of science and knowledge.</p> <p>Our multilingual group of National Geographic Explorers hosted a series of discussions to move towards a more equitable science. First, we want to draw attention to the problems that monolingual science faces based on personal experiences. Next, we present different perspectives and think of possible solutions to create a more resilient, accessible, globally representative, and impactful science. We propose that the first step could be the creation of multilingual networking communities to support non-Anglophones, facilitating the creation of multilingual conference activities, and normalizing translation practices to multiple languages in scientific journals. A more multilingual scientific community will make science more accessible to the multilingual public and increase access to scientific research for scientists, students, and beyond academia.</p>
8:45	<p>[33] Creation of a multilingual collaborative platform for the identification of investment opportunities from biomass transformation processes with applications in Latin America and the Caribbean</p> <p><i>Presentador: Prof. OREJUELA-ESCOBAR, Lourdes Magdalena</i></p> <p>There are articles and information on the techniques, procedures and methodologies associated with the use of biomass for industrial purposes on different scientific publication platforms. However, the information is scattered and not easily accessible to the non-scientific community. The implementation of the bioeconomy represents a great impulse towards sustainable development. In this context, information that is not easily accessible to non-scientific actors (example: public and private agents) represents an obstacle for the development of the bioeconomy specifically in the Latin American and Caribbean region. Faced with this problem, it is proposed to create a platform based on collective collaboration (crowdsourcing) in which project records will be collected from the prototype phase to the commercial phase, which will be subjected to a curation process. The main objective of the articulation of this platform is to achieve visibility of the opportunities for biomass use in Latin America and the Caribbean. This technological tool will be available in three main languages: Spanish, Portuguese and English, thus overcoming language barriers. The Hub will make it possible to establish relationships between multidisciplinary actors, creating professional and collaborative networks among users. Likewise, it is a channel that enables investors from the public and private sectors to visualize and identify potential opportunities for transforming biomass into products of commercial value. This project is a model of how to promote the visibility of regional scientific and technological work, inclusion in the language and the creation of connections between academic work and the economic needs of a region whose abundant resources have historically been underutilized.</p>
9:00	<p>[50] Five Rules of Effective Writing in the Sciences</p> <p><i>Presentador: Dr PERALTA, David (Wiley-VCH)</i></p> <p>In this talk, David Peralta (Editor-in-Chief, ChemMedChem, Wiley-VCH) will share his insights on what the top five rules are when it comes to scientific writing. We'll cover some concrete tips in improving one's writing, as well as some best practices to be able to communicate one's research in the best way possible.</p>

9:15	<p>[25] Indigenous Languages in the Scientific World: A native speaker perspective</p> <p><i>Presentador: GUALAPURO, Santiago (The Ohio State University)</i></p> <p>Several linguistic, anthropological, ethnographic and other indigenous related studies have been carried out and published in the most prominent scientific journals and books. In those publications, scholars treat indigenous ontologies as objects of study, but fails in treating them as equals and pictures indigenous people as simple subjects of study. Even more, the racialization of speakers frames their linguistic practices as deficient regardless of how closely they follow supposed rules of appropriateness leaving speakers of minority languages, languageless (Rosa 2016, Rosa & Flores 2015). Indigenous people in response to such treatments from the ruling society have opted for not using their own ontological manifestations and stopped sharing them to the next generation and assimilate to the western society to avoid discrimination.</p> <p>In Ecuador, indigenous languages have suffered significant loss of speakers throughout the years (Haboud 2020). Haboud's study shows graphically the alarming differences among three generations in language use: monolingual indigenous language speaker grandparents, bilingual parents and Spanish monolingual children. In this context, all past revitalization efforts have failed, and the absence of strong state educational policies in indigenous languages have severely conditioned the survival of indigenous languages in Ecuador. However, there is a renaissance of indigenous activists who have taken into their hands the efforts of studying and promoting their languages within their local communities. Although these efforts are great for promoting language use in territory, it is not enough for calling the attention of the state, the academic world and the financial resources it needs to practice a true revitalization process.</p> <p>In this presentation, I want to lay out ideas and the work we do and promote at the Kichwa Institute of Science, Technology, and Humanities-KISTH (Fundacion KISTH in Spanish). First, in order to effectively revitalize a language, we as indigenous people need to be able to move beyond the place-based knowledge (Johnson et. al., 2015) and be ready to participate in global stage entrepreneurship. Second, we need to challenge the Euro-centric standard vision of the society. Third, we need to work collectively in effectively promoting indigenous ontological systems to the wider society. Fourth, access to education for indigenous children should not be limited to the monoglotic system in place. Fifth, modern scientific knowledge must be transmitted in indigenous languages. However, scholars and academic institutions alike do not consider or limits indigenous languages and knowledge as part of their curriculum. In this talk, I aim to raise the awareness of scholars in Ecuador about indigenous languages situations and call for a collective action in order to effectively protect them.</p>
9:30	<p>[30] Preserving richness of data during language translation in the Social Sciences</p> <p><i>Presentador: CARRICK, Oliver James (USFQ Galapagos)</i></p> <p>Qualitative data collection through interviews and focus groups yields powerful insights into realities and lived experiences of often marginalized and vulnerable subjects. During language translation, researchers are faced with issues not only concerning the accurate representation of speech and ideas in a second language, but also with ethical issues surrounding the portrayal of incorrect or deficient verbal communication. This presentation will explore the nuances of quoting social subjects in another language, including the appropriateness of literal translation. The aim is to outline some author principles for conserving data integrity and the faithful expression of hidden and explicit meaning within the spoken word. This includes a discussion of how reviewers and readers should receive attempts to preserve data richness while portraying language which is either unwieldy or aesthetically lacking. The presenter will draw on experience from qualitative studies in the social sciences in Ecuador, including an analysis of the lived university experiences of indigenous students.</p>
9:45	<p>[35] Adaptation of the Periodic Table to Kichwa: An Ecuadorian Native Language</p> <p><i>Presentadores: Mr ANDINO ENRÍQUEZ, JOSÉ ESTEBAN (UNIVERSIDAD DE INVESTIGACIÓN DE TECNOLOGÍA EXPERIMENTAL YACHAY), Mr ANDINO ENRÍQUEZ, MANUEL ALEJANDRO (UNIVERSIDAD DE INVESTIGACIÓN DE TECNOLOGÍA EXPERIMENTAL YACHAY), Ms HIDALGO BAEZ, FRANCIS EMILIA (UNIVERSIDAD DE INVESTIGACIÓN DE TECNOLOGÍA EXPERIMENTAL YACHAY), Ms CHALÁN GUALÁN, SISA PAKARY (UNIVERSIDAD DE INVESTIGACIÓN DE TECNOLOGÍA EXPERIMENTAL YACHAY), Mr GUALAPURO GUALAPURO, SANTIAGO DAVID (UNIVERSIDAD ESTATAL DE OHIO), Ms CHICAIZA LEMA, MICHELLE BEATRIZ (UNIVERSIDAD DE INVESTIGACIÓN DE TECNOLOGÍA EXPERIMENTAL YACHAY)</i></p> <p>Minorities' languages face transformation processes and struggle against many social and linguistic limitations. Education systems in these languages are not optimal to promote the teaching of ancestral knowledge and scientific research. This is the case of Kichwa, an Ecuadorian native language that more than half-million people speak with different variations among the country. Kichwa lacks science tools to respond to educational needs, unleashing the gradual loss of intercultural diversity. The adaptation of the periodic table to Kichwa was developed in this work, taking into account its different language variations and the Kichwa speaker's opinion to ensure the acceptance of this scientific tool. This research aims to break barriers in the development and conservation of indigenous people's intellect by promoting Kichwa deep-rooted writing and enhancing an excellent bilingual intercultural education system in Ecuador.</p>

Break (10:00-10:30)

Design thinking working groups (10:30-11:30)

Plenary - Design thinking sessions (11:30-12:00)**Break (12:00-13:30)****Oral session: Ethics (13:30-15:00)**

time [id] title

13:30	<p>[34] ENGINEERING RESEARCH AND INNOVATION FOR THE INTEGRATION OF ACADEMY AND SOCIETY</p> <p><i>Presentador: VELÁZQUEZ-ARAQUE, Luis (Faculty of Chemical Engineering, University of Guayaquil, Guayaquil, Ecuador; Ambiente Sociedad & Empresa Research Group, University of Guayaquil, Guayaquil, Ecuador)</i></p> <p>The main role given to engineering research and innovation towards a smart, sustainable, and inclusive growth in the world, means that academic and scientific institutions make full use of their human capital, thereby involving both men and women. Evidence shows that promoting gender equality at all levels contributes to achieving excellence and efficiency in research and innovation performance. Although some initiatives have been developed in Europe and the US for several years, they have proved to be insufficient and have not helped to address the structural barriers contributing to the leaky pipeline phenomenon. This has led to a shift in focus towards addressing the structural transformation of institutions, using a systemic, comprehensive, and sustainable approach. An exhaustive analysis of the role that scientific and academic institutions must play to enhance integration of academy and society for a structural change is made, so that decision making is more transparent, unconscious bias is removed from institutional practices, human resources management is modernized, excellence is promoted through diversity, and research and innovation are improved by the integration of diverse perspectives. While a lead is required from government institutions, a wider range of actors also need to play an active role in renovating the way in which research and innovation is conducted in all countries.</p>
13:45	<p>[29] Open Science: How Study Preregistration, Data Repositories, and Public Hypotheses Contribute to Research Integrity and Improve Collaborative Research Productivity.</p> <p><i>Presentador: Prof. POHLMANN, Attila (Universidad San Francisco de Quito USFQ)</i></p> <p>A narrative of crisis has led to increased efforts to improve the reproducibility, transparency, and integrity of science lately (Baker, 2016)□. Reports mention questionable research practices, such as p-hacking or deliberately not publishing contradictory results (Fanelli, 2018; Peng, 2015)□. The Open Science movement provides researchers with useful tools to preregister studies (Bosnjak et al., 2022)□, disseminate their research data (e.g., (https://osf.io), and incentivizes them to publish formalized hypotheses for collaborative research projects (The Hypository, Moeller et al., 2022)□.</p> <p>This communication discusses the advantages of using study preregistration and data repositories during the publication process. Generally, the secondary advantages of study preregistration include editor commitment and the possibility for reviewers to inspect study materials, such as protocols and datasets, potentially leading to a more efficient review process.</p> <p>For researchers, it is important to contextualize practical considerations in the process of preregistration follow-up (Claesen et al., 2021)□. Furthermore, study replication has provided opportunities to improve reproducibility, replicability, and statistical power in fields, such as cognitive neuroscience and developmental neuroimaging (Klapwijk et al., 2021)□. Experiences among researchers with study preregistration vary and the usefulness of the process is questioned by researchers in some fields (Pham & Oh, 2021; Sarafoglou et al., 2022)□.</p> <p>Discussions with experts can explore whether the notion of crisis in science is an appropriate narrative (Fanelli, 2018)□ or whether these recent developments rather represent paradigmatic shifts in the research and publication process that authors can harness to improve collaborative research productivity.</p>

14:00 [27] Reason and Power: Derrida on the Viability of the Modern University

Presentador: NEVO, Isaac (Yanni) (Dept. Of Philosophy, Ben-Gurion Univ.)

In this paper, I present three competing conceptions of academic practice and the ethos governing university institutions. These are, in the words of one university president, the functional conception, which considers the university to be an institution whose main purpose is "economic growth" achieved through "technical" service in the creation of scientific-technological knowledge and in training experts to apply this knowledge for beneficial social purposes; the ideal conception, which takes the main purpose of the university to consist in the service of "knowledge and discovery" as "higher values", while striving for the realization of a timeless ideal; the critical (or civic) conception, which sanctifies the "soaring" of thought beyond "the signals of the economy and the dictates of authoritarian governments" and sees the university as a site of freedom, of telling truth to power, and of opposing any tyranny, governmental or otherwise (including, at times, what is perceived as the tyranny of the elitist "ivory tower", and even that of the "striving for truth" itself).

There is room for an integrative view. Each of these conceptions is an appropriate, though partial, expression of a multidimensional practice that lies at the basis of modern universities. Academic conflicts arise when each of these conceptions is presented as exclusive, or on a unilateral basis. Thus, the subordination of academic autonomy, and with it, of the search for truth, to the service of useful economic purposes brings along with it the conception of the university as a kind of factory, or a center of industrial-commercial entrepreneurship, and marginalizes the academic community as a community established on intellectual values. Similarly, ignoring the public manifestations of the truth being studied in academic institutions can serve to exclude the critical public role of the academy and lead to its rejection in the name of a crippling moral neutrality. Similarly, too, a public-critical appeal against the academy's own activities, especially if this appeal is argued for in radically skeptical terms that negate the concepts of truth and rationality themselves, constitutes a *reductio* to absurdity of the academy's intellectual values and exacerbates trends of academic fragmentation. These are all ways of intensifying internal tensions through one-dimensional conceptions of academic practice and its objectives.

In the present lecture, I shall focus on this last example by way of presenting arguments by Jacques Derrida, in some well-known lectures (1980,1983), that are directed against the modern university based on critical moves rooted in that tradition itself. Derrida's critique is too narrow and one sided in the way the modern university is presented, though it does reflect an important aspect of the academic ethos. Speaking truth to power, including the institutionalized power of science, technology, and the university itself, is one of the major roles of the modern academy, alongside its more practical functions in teaching and research, and it is rooted in the connection highlighted by Kant (1799) between bringing truth to light and the public existence of a free "faculty," that is, in the institutionalized connection between the freedom of thought and expression and the advancement of truth. As we shall see, Derrida applies this critical principle of speaking truth to power to the critique of power mechanisms that appear to underlie the pursuit of truth itself. By this move he brings this critical approach to its highest expression but undermines it in practice.

14:15 [36] Publicación de datos de biodiversidad a través de la Infraestructura Mundial GBIF: Avances y perspectivas desde el Ecuador

Presentador: Mr ANDRADE, Ricardo (Ministerio del Ambiente, Agua y Transición Ecológica (MAATE))

Los sistemas informáticos, son poderosas herramientas tecnológicas, utilizadas para el procesamiento y gestión de los registros o datos procedentes de las formas de vida de la tierra que junto a sus correspondientes metadatos, permiten acceder a la información como un argumento válido, para la toma de decisiones de las entidades encargadas de la conservación y uso sostenible de la biodiversidad basados en el conocimiento adecuado desde la fuente de recolecta hasta su publicación.

Es por ello, que el Sistema de Información de Biodiversidad del Ecuador (SIB-Ec) y la Infraestructura de Datos de Información de Biodiversidad (GBIF, por sus siglas en inglés), son mecanismos de regulación y seguimiento, implementados para la gestión efectiva de las competencias del Ministerio del Ambiente, Agua y Transición Ecológica (MAATE) a través de la Subsecretaría de Patrimonio Natural y la Dirección de Biodiversidad, quienes en su calidad de autoridad nacional competente, ejercen cumplimiento de lo establecido en la normativa nacional así como, en los acuerdos y convenios multilaterales ambientales ratificados por el Ecuador.

Desde la década de los ochenta esta Cartera de Estado, ha ejercido la regulación y seguimiento al uso sostenible de la biodiversidad mediante la emisión de autorizaciones de investigación (permisos de exportación CITES y NO CITES, autorizaciones de investigación de vida silvestre sin fines de comerciales (ARSFC), contratos marco de acceso a los recursos genéticos (CMARG), patentes de funcionamiento de medios de conservación y manejo ex situ y centros registro y documentación de vida silvestre como instrumentos legales que ayudan a la gestión de los recursos biológicos y genéticos de la biodiversidad.

La publicación de datos de biodiversidad bajo esta modalidad, representa para los investigadores nacionales y extranjeros de las instituciones nacionales de apoyo (universidades y centros de investigación reconocidos por la autoridad competente), tres aspectos importantes como lo son: 1) reconocimiento académico y laboral a todos los colaboradores que intervienen en la gestión de los recursos biológicos y genéticos así mismo su información conexa; 2) crédito por la indexación y citación del trabajo publicado y; 3) aumento de la credibilidad, visibilidad y usabilidad de los datos publicados.

Esta divulgación de información, se realiza bajo la gestión operativa del nodo nacional administrado por el MAATE, mediante la herramienta de software abierto gratuito, usado para la publicación integrada de datos (IPT por sus siglas en inglés), acorde al estándar Darwin Core (DwC), que es un marco de trabajo estable, sencillo y flexible, que compila datos de biodiversidad de diferentes fuentes y variables, siendo la forma más eficiente de preparar y publicar juegos de datos provenientes de los permisos emitidos.

Estos mecanismos de reportería permiten cumplir con los instrumentos legales ecuatorianos y brindan a los científicos, la posibilidad de cumplir con sus obligaciones legales y a su vez, generar artículos científicos de juegos de datos (datapapers), que describen un conjunto de datos de biodiversidad y puede ser publicado en revistas científicas indexadas relacionadas al tema de la investigación, procedentes de instituciones científicas a nivel mundial.

Es así, que mediante la Infraestructura Mundial de Información en Biodiversidad- GBIF (por sus siglas en inglés), que es una plataforma internacional, se promueve la gobernanza de interoperabilidad y apoya a los países miembros en la publicación de información de biodiversidad bajo estándares comunes y de código abierto, que permite compartir bajo licencias internacionales de protección de acceso a la información, todos los datos recolectados de las especies de flora, fauna y microorganismos derivadas de las investigaciones científicas y es así que nuestro país a través de las instituciones competentes en temas de biodiversidad, desde el año 2020 ha comenzado a compartir la información de la biodiversidad del Ecuador al mundo.

14:30 [8] Comparing Russian pro-war and anti-war scientists

Presentador: Dr MELIKHOVA, Larisa (Dissernet)

The Russian voluntary network society Dissernet use to study different types of unethical behavior of Russian scientists: plagiarism in dissertations, publication misconduct and other types of pseudo-scientific activities. Since the beginning of Russian-Ukrainian war, we wanted to know if there is any correlation between the "quality" of a scientist and his/her pro-war position

First of all we compared such correlation in the area of ethics violations. To do so, several groups of scientist were compared: those who signed pro-war or anti-war petitions . In each group we calculated the percentage of so-called Dissernet-persons: people who are in Dissernet database as having various violations of scientific ethics. The highest percentage has been found among rectors of Russian universities who signed a notorious "rectors' letter" supporting the war and Russian president (which has disastrous consequences for the universities headed by these people, because after this letter many foreign organisations interrupted their scientific contracts with these universities). It also turned out that the percentage of Dissernet-persons is dramatically lower among scientists who have signed an anti-war petition than inside other groups of scientists who signed a pro-war petition.

Also studied was the correlation between bibliometric indicators of the scientists who support the war comparing to the scientists who make no public statements to the subject and those who openly oppose the war. It turns out that the higher the international rating of a scientist, the more negative is his/her attitude towards the special military operation. We found a clear correlation between the average rating of the journal in which scientists are published and cited, and the position of these scientists: low-cited and low-ranking publications are among pro-war scientists, in the middle – the scientists who are "silent", and highly rated are the scientists who openly express the position against the war.

The explanation of these results seems clear. The scientists who support the war base their position on the false facts (like fascism in the Ukraine, etc.) or propaganda hypotheses (if we had not attacked first, they would have attacked us) – which means that such scientists lack scientific methodology and are driven by irrational thinking and conspiracy theories. "silent",

∴ Poster session (15:00-17:15)

time [id] title

15:00 [43] Limitations, challenges and perspectives of young researchers in South America

Presentadores: Dr NAVAS-CARDENAS, Carlos, Dr SOMMER, Alicia (Yachay Tech University)

Nowadays, the number of people who want to get involved in research work is greater than it was many years ago. This fact has generated greater challenges to enter to the Academia in the World, especially in South America and the Caribbean countries. According to statistics, in this Region, only 0.75% of its GDP is destined to research and development, which is very low compared to the investment made by the countries of the Organization for Economic Cooperation and Development (OECD, 2.38%) and USA (2.74%). This is one of the main reasons why Master's and Ph.D. scholarships and funding for research projects are lower than in developed countries, making it increasingly difficult to compete for them.

During a Graduate Program, the student acquires skills, experience and knowledge through their research, internships and meetings with other researchers. However, once graduated, it is difficult to find postdoctoral positions and even more so as a Researcher or as a Professor in research groups and universities in South America. On the other hand, there are several limitations that young researchers have in obtaining funding to carry out research projects, among other aspects, due to "the lack of experience and prestige", regardless of the skills, knowledge and networking achieved over several years of preparation. In addition, it is necessary to consider that there are several limitations regarding the acquisition of equipment and supplies, which is too cumbersome due to the unnecessary and annoying procedures that are requested from the administrative point of view. Despite these limitations, one of the main perspectives of the Young Researchers of South America is to develop projects and innovations that promote the development of the region, considering the enormous human talent, their desire for progress and their fresh ideas to take advantage of the resources through collaboration between researchers from around the world and the financing of projects by international organizations.

15:15 [13] Immunization-associated myocarditis post mRNA COVID-19 vaccination: a review article

Presentador: Mr FLORES NUNEZ, Roberto David (Investigador independiente)

Introduction: Vaccination-related myocarditis has been reported as a major side effect of the mRNA COVID-19 vaccine. In this review article, a series of 15 global case reports of laboratory-confirmed myocarditis post COVID-19 vaccination were summarized. Objectives: The main objective of this article is to critically analyze and summarize published case reports on vaccination-associated myocarditis. Methodology: Google Scholar was used to search for confirmed cases of vaccination-associated myocarditis from 2021 to 2022. Results: It was found that there is a higher prevalence of immunization-related myocarditis in young adults, especially in male patients (94%). Genetic defects, environmental aspects and dietary habits were discovered as other factors that could have stimulated the development of myocarditis. Troponin and C-reactive protein levels were elevated in most cases (93%). Conclusions: vaccination-associated myocarditis case reports are very rare and only represent a minimal fraction of the total population that has been vaccinated. The benefits offered by the COVID-19 vaccine far outweigh the effects a COVID-19 infection. It is recommended to continue administering the mRNA vaccine to manage the COVID-19 pandemic.

15:30 [9] Physical activity and nutritional status in university students

Presentadores: Dr ROSALES RICARDO, Yury (Carrera de Medicina. Universidad San Gregorio de Portoviejo), Dr CORDOVEZ, Simone (Carrera de Medicina. Universidad San Gregorio de Portoviejo), Dr YUMY, Fernández (Carrera de Medicina. Universidad San Gregorio de Portoviejo)

The main objective of this research was to synthesize the evidence of previous studies on physical activity and nutritional status in university students (specifically undergraduate students) by means of a systematic review. Among the instruments applied to determine nutritional status, the body mass index (BMI) validated by the World Health Organization stands out. In general, the determination of body fat percentages by means of electrical bioimpedance and the skinfold technique, and the measurement of waist circumference were most frequently used. In the analysis of physical activity levels, the International Physical Activity Questionnaire (IPAQ) short version (2003) was used preferentially, and the Accelerometry technique was used much less frequently. On average, according to BMI, more than 30% of the university students were classified as overweight or obese. The male sex (34%) had higher averages than the female sex (28%), with an overall mean BMI that could be considered adequate ($\bar{x}=23.1, \pm 7.3$). Low levels of physical activity practice accounted for 34% of the students, medium levels for 58% and high levels for only 8% of the university students. In the overall results of the correlations of some studies between nutritional status and physical activity, on average, physical activity had a significant and inversely proportional relationship with BMI ($r = -0.228$; $p=0.001$), fat mass ($r = -0.291$; $p < 0.001$) and visceral fat ($r = -0.197$; $p = 0.002$).

15:40 [24] Latino researchers without borders: international research cooperation as a critical strategy for successful training

Presentador: Mrs HERNÁNDEZ GUERRA, Inés Carolina (USFQ-IKIAM-UC)

Hernandez., I (2022). The experience lived during the professional practice program at USFQ, as part of the doctoral research that began in Venezuela and continued through the agreement with the IKIAM-USFQ University, was possible thanks to the "Business Contact" program. USFQ 2021-2022". This university offers multiple academic and experimental facilities through this program to international students, who can develop experimental work and, at the same time, through technology, continue with professional training from our country of origin in collaboration with the Ikiam university. These joint actions strengthen each student's specialization to complete the graduate degree. Hence, universities involved in these initiatives as avant-garde institutions in cutting-edge technology research applicable to the strategic sector of hydrocarbons and their derivatives contribute to the sustainable development of nations. In addition, the warm welcome of a collaborative and consolidated work group is essential for the fulfillment of the objectives of the research project. Cooperation between all team members, from seniors to juniors, through exchanging ideas, experiences, and contributions, is fundamental for the knowledge and technology transfer between teachers and researchers from other disciplines. The opportunity to participate in national and international talks and conferences has empowered me in team management, communication skills, and teamwork, making it a unique experience. Even though my training has been in oil engineering, the work in circular bioeconomy and bio-refinery in the GICAS laboratory aroused my interest in investigating biomass treatments applying my knowledge beyond my field of expertise for the use and obtaining of natural products, such as surfactants, biopolymers, and fuels.

16:00 [49] What does Impact factor really means?

Presentador: ANDRADE SOSA, Ana Gabriela (Universidad San Francisco de Quito)

The advances of science and technology in our society are due to the research that is carried out both in the academy, in government institutions or laboratories of the private sector, therefore research is what propels humanity forward. The purpose of the research process is to generate new information or deepen understanding of a topic or issue, thus research empowers humankind with knowledge. This process begins with the innate curiosity to understand the natural world and the ideas that surround us. It is believed that all research should be published, moreover one can say that "research that is not published has not been done". Therefore, once the research is finished and the results are available, the process of publishing and choosing the journal begins, so that we start thinking about the impact factor of the journal in which it would be good to publish our research; yet, what does really impact factor mean? Impact factor (IF) is commonly used to evaluate the relative importance of a journal within its field and to measure the frequency with which an article in a journal has been cited in a particular time period. Journals which publishes more review articles will get highest Ifs. Peer-reviewed journals try to have a publishing process in which thoroughness and helpfulness of the research subject is considered, however, peer review in journals with higher impact factors tends to be more thorough in addressing study methods but less helpful in suggesting solutions or providing examples. In fact, the IF is frequently used as an indicator of the importance of a journal to its field. The IF of a journal is not associated to the factors like quality of peer review process and quality of content of the journal, but is a measure that reflects the average number of citations to articles published in journals, books, thesis, project reports, newspapers, conference/seminar proceedings, documents published in internet, notes, and any other approved documents. Journal which publishes more review articles will get maximum IFs. The Journal Impact Factor (JIF) is a prominent metric linked to the value of academic journals, as well as career prospects of researchers. In general citations of the published articles occur mainly in the first two years, therefore the real "value" of a scientific publication should not rely in the journal IF in which appears the study, but in the impact of the studied topic in a community o society and how this can enhanced the quality of their lives.

16:15	<p>[47] Ethical principles in scientific publications: A view from a beginning researcher</p> <p><i>Presentador: VENEGAS VÁSCONEZ, Diego Fernando (Departamento de Ingeniería en Maderas. Universidad del Bío-Bío)</i></p> <p>Every year hundreds of young university students enroll in scientific research groups to make contributions to multiple fields of science and technology. The most frequently used way to disseminate knowledge is through scientific articles, which are published in specialized journals. The desire to increase scientific production can influence the occurrence of bad practices and lack of ethical principles by authors and collaborators, and young researchers may be forced by the workgroup that hosts them to incur them. This paper shows the most common cases of lack of ethical principles in scientific research in which new researchers may be involved due to the obligation of their work group. Some solutions to this problem are proposed so that new researchers can have a non-traumatic start on this path of scientific research.</p>
16:30	<p>[15] The risks that exist in the rainforest devastation during COVID19: a ethnobotanic approach</p> <p><i>Presentador: CASTRO, Darien (YOUNGO)</i></p> <p>Zoonotic diseases start to appear more frequent because of lack of natural barriers like forest borders, the animal diversity and the expansion of these as vectors with the high temperatures that allow this transition of vectors are part of consequences of climate crisis. We would like to share a epidemiological monitoring with local alternatives treatments based in ethnobotanic knowledge of native plant diversity.</p> <p>The COVID-19 pandemic has been a difficult situation around the world, especially in the Global South. We could see that the isolation and social distancing suffered wrong executions by governments during these 2 years of infection. The communities that live in voluntary isolation as Indigenous communities have been able to face the pandemic issue despite lack of Healthcare access. In Ecuador and Brazil, the exploration area for Mining, and Farming Industry, and Oil Industry have expanded 50%-75% during this pandemic situation. Natural Disasters and the basic services loss were the main problem in areas with high risk of pollution and detoxification due to the distance between toxic fluids spills (oil and mining companies) and the communities' riverside. These facts allow us to understand a topic to research:</p> <p>The possible link between natural and ethnobotanic mechanisms of ethnic groups in forest and farm areas and the efficiency to fight against the disease.</p> <p>In this case we could see the influence of green spaces to overcome the COVID-19 spreads focusing on alternative treatments based in ancestral knowledge and geographical isolation or distribution as key factors to resist infectious diseases.</p>
16:45	<p>[48] The challenges of developing high-impact scientific research in Ecuador</p> <p><i>Presentador: GUALLE BRITO, Arleth (Universidad San Francisco de Quito)</i></p> <p>Ecuador is a developing country with a low percentage of scientific publications compared to other countries in the region. For an Ecuadorian researcher, scientific advances have several obstacles at the time of development of a research and for its publication several aspects must be taken into account such as: lack of a scientific culture, policies that do not support research, private companies that do not promote these initiatives. high costs of equipment and reagents because there are no companies that make these inputs and they have to be imported.</p> <p>In Ecuador, it has a human talent within the scientific area that, despite the challenges, has managed to publish internationally and create alliances with other organizations that support these initiatives. In recent years, proposals have also emerged that promote scientific progress within universities who seek to get their students interested in the field of science and technology as an opportunity for companies to be part of these initiatives.</p>

Thursday 24 November 2022

Plenary session: Plenary speaker 2 (8:00-8:30)

time [id] title

8:00 [18] Academic marriages: Evaluating a researcher's independence

Presentadores: GUERRERO PEREZ, Maria Olga (Universidad de Malaga), Dr PATIENCE, Gregory (Polytechnique Montréal)

There is a consensus in the scientific community regarding the importance of the citations received, and for this reason the h-index is a factor commonly used throughout the world to evaluate the scientific quality of an author, since not only the quantity is important (number of papers) but also quality (measurable impact in number of citations received).

However, parameters are rarely used to measure the number of authors, which is important to assess the independence of authors and their ability to work with different teams. An author can have many works with many citations, but what happens if absolutely all of his works have been published together with another author? how to demonstrate that he is an independent scientist capable of working without the other author?

The present work proposes a methodology to easily evaluate not only the number of authors per work but also the independence of an author (their ability to work in different environments or if they always publish the same number of authors) and it is studied if the independence of the authors is related to the position of the university in the main rankings and the research quality of the authors.

Oral session: Publishing processes (8:30-10:00)

time [id] title

8:30 [46] Journal impact factors are more than just proxies of impact

Presentador: Prof. PATIENCE, Gregory (Polytechnique Montreal)

Journal Citation Reports have indexed impact factors (NIF, the number of citations registered in year x to articles and reviews published in years x-1 and x-2 divided by the total number of articles in x-1 and x-2) for 21400 journals in 2022, which is almost 10 000 more than in 2021. However, the number of articles with an impact factor greater than 0.2 was invariant at >12 300. The median impact factor, excluding articles with an NIF<0.2, was 2.65 for 2022, which was a huge increase over 2021 at 1.86 and has increased steadily from 1.2 over the last 10 years. Seven journals have an impact factor greater than 100 and they were all in health sciences or life sciences.

DORA (The Declaration of Research Assessment) rejects relying on simple measures like the journal impact factor to evaluate individual and institutional performance and insists that we improve our policies for funding, promotions, and hiring. The presumption has been that evaluators rely too heavily on proxy measures of quality – NIF, h-index (the number of articles, Nart, a researcher has published with at least that number of citations), publisher prestige, and institutional reputation. Certainly, these metrics must carry some weight in an evaluation, but research impact should be underlying measure of quality. However, how does anyone measure research impact: total value of grants, number of students graduated, which then becomes an exercise in counting. In a recent article on the DORA website, Hatch and Curry state that “Most academic reward systems rely on proxy measures of quality to assess researchers”

(<https://elifesciences.org/articles/58654>). In this forum on communication, we must take exception to statements like these as it presumes that DORA has had no impact since 2013 and that proxy measures poorly correlate with contribution. Furthermore, we should suspect most statements that start with the word most unless it is accompanied by experimental data or a reference.

Evaluations are flawed as they rely on individuals who have diverse experience and values. For example, in our chemical engineering design Capstone project, we have as many as 6 people grading oral presentations. Often (a word like most), a project that is assigned the highest mark by one person is give one of the lowest marks by another. This incoherency is discouraging and unexpected as the people marking have the same background and the same grading scheme. The variance in opinions of people assessing grant proposals or scientific awards even be larger.

Impact factors have been increasing and students (and professors and researchers) target journals with the highest impact factor for their work as they perceive that this will have a positive impact on their career. The fact that we target high impact factor journals reinforces the Matthew effect: the rich get richer, or in the case of journals, the good journals get better. So, impact factor must correlate with quality in the long term. In the short term, journals can increase their impact factor by reducing the time from submission to acceptance to publication by accepting poor reviews, for example. Journals that insist on 5 reviewers will certainly suffer in the long term as researchers expect rapid turnaround. Consequently, the higher quality journals that take years to publish articles will eventually be overlooked.

8:45 [14] Actual status of the research publication process in Colombia

Presentador: Mrs RIVERA-QUINTERO , Paula (Polytechnique Montréal- Dept. of Chemical Engineering)

From the point of view of the authors, there are pros and cons in producing scientific literature, i.e., funds are needed for research projects and publications are usually mandatory products at the end of the process yet accessing most of funding programs requires a certified publishing experience.

In such matter, el Ministerio de Ciencia Tecnología e Innovación (Science, Technology and Innovation Ministry) of Colombia has implemented a model to classify scientific journals according to specific characteristics such as content level, accessibility, and citation among others, assigning them in quartiles levels (Q1, Q2, Q3 and Q4 levels). This office is also in charge of administering Colombian funds for research projects with requirements of publication in highly ranked journals at Q2 and even Q1 level.

In most cases, the timeframe established for writing a publication is not enough and corresponds with the same period of time assigned to the whole project. For this reason, researchers are always in a hurry leading sometimes to weak publications with a lack of thorough discussion.

However, professors, research groups leaders and even students are forced to have certified experience in publications if they want to keep competitive in their research careers. In some cases, academic institutes in the private sector require a certain amount of publications per year to their faculty members with the risk of losing their jobs when failing to do so. In the public sector, the mission of academics is usually framed into three main pillars: instruction, research and community reach activities though research is the only one that allows them a secure way to improve their income but the time assigned to do it is limited when compared to instruction. In particular, research group leaders should, on top of the latter, spend a considerable amount of time administrating the group e.g. communications, accounting, event planning, schedule designing, supervising, etc.

In the case of students, graduate programs tuitions in private institutions are pricey though having research experience is not usually required. On the other hand, public institutions fees for graduate programs are usually lower or provide scholarships but research experience, i.e., publications and scientific events participation, is almost always required. In most cases, scholarships and job positions requisites include publication experience.

Finally, highly ranked journals are generally written in English which is not an official language in Colombia. Although English has become very popular, only those with a possibility of attend language academies can improve their English skills. Public schools have English as a compelled subject in their curricula; however, English level is not adequate since there are not enough teachers to cover all the schools. For this reason, most of researchers should compose their papers in Spanish or "thinking in Spanish" making the process tough and slower.

In conclusion, Colombia is on its way to compete internationally in journal publications though that way is long and substantial improvements should be implemented by the government if speeding the process is wanted.

9:00 [28] Revista Politécnica: The Path to Indexing in Scopus

Presentador: Prof. TORRES, Jenny (Escuela Politécnica Nacional)

The Revista Politécnica (ISSN 1390-0129; eISSN 2477-8990) is a publication of the Escuela Politécnica Nacional. The journal was created in 1961, being the first Ecuadorian scientific journal, with the purpose of disseminating technical-scientific works to the national and international scientific community. Over the time and the different editors-in-chief who managed the journal, different changes and advances of it in the scientific community became evident. In 2013, the journal had an internal restructuring seeking to improve internal processes to meet the requirements established by international indexes.

In the following years, work continued on the regulations for structuring the team and the editorial committee, which enabled the Revista Politécnica to have an organizational structure within the Vice-Rectorate for Research. The Open Journal System (OJS) software for editorial management was then implemented, which allowed the journal to get indexed in different indexes and databases on scientific publications, being Latindex the first to be incorporated.

At that time, it was very clear for us that the publishing processes were necessarily linked to the construction of national and international academic and scientific communities; and that most researchers prioritize the submission of their articles to indexed journals as an indicator of journal quality, becoming it vital to the reputation and impact of published articles. This has boosted the improvement and growth of the journal with a view to its indexing in Scopus. Since its founding in the early 2000s, Scopus, which is Elsevier's abstract and citation database, was recognized as one of the top research indexes. We saw this indexing as a process to help the journal to provide greater confidence to both, researchers and readers due to basic aspects of quality in their journals.

To achieve the indexing goal, the competencies of the editorial team got strengthened in order to manage, coordinate, prepare, write, correct and review the articles to be published through the editorial process. Nowadays, the Journal publishes a quarterly number and is indexed in: Scopus, Network of Scientific Journals of Latin America and the Caribbean, Spain and Portugal (Redalyc), Scientific Electronic Library Online (SciELO), Catalog 2.0 of Latindex, Directory of Open Access Journals (DOAJ), Ibero-American Network of Innovation and Scientific Knowledge (REDIB), Information Matrix for the Analysis of Journals (MIAR), Bielefeld Academic Search Engine (BASE), CiteFactor, PKP Index, Google Scholar, ResearchBib, International Institute of Organized Research (I2OR).

The editorial board of Revista Politécnica has as perspective for the following years to maintain the indexing and to improve its position in the quartiles of the databases; and at the same time to continue to strengthen the journal editorial team along with the editorial processes. The present work shows the path to indexing in Scopus database as well as some key points to achieve it.

9:15 [51] Open Access Trends and MDPI

Presentador: Dr VICARIO, Unai (MDPI)

Open Access publications have grown a 10% during the last 5 years. It now represents over 50% of all publications. MDPI's APC (article processing charges), an effective peer review process, and a continued support of open access have led to a sustained growth in MDPI's number of published articles. We are also seeing a switch in some areas of research such as medicine or engineering towards open access.

9:30 [10] Scientific production and its importance for international university rankings

Presentador: ROSALES RICARDO, Yury (Carrera de Medicina. Universidad San Gregorio de Portoviejo)

Scientific production expresses the knowledge resulting from intellectual work through scientific research in a given area of knowledge, whether or not it belongs to the academic field, which contributes to the development of science as a social activity. It contributes to the development of science because in its historical development it is associated with its results, among others with its publications, which are nothing more than a form of existence of science itself, and with the professional development of researchers. New knowledge originating from research activities is traditionally transmitted through publications, mainly as journal articles, in order to facilitate their dissemination to the scientific community, to serve as a basis for new knowledge and to gain recognition for their authors. Such publications are, therefore, a measure of the research carried out. But nowadays, it is just as important to know where to publish as it is to know how to publish. Journals indexed in international databases such as Web of Science (WoS), Scopus and Medline are examples of this. One of the most important aspects for a researcher is to be able to present and publicize the results of his or her studies within the academic community, so it is not only very important to know how to write a scientific article but also where it could be published. A better regional positioning of Latin American universities depends, to a large extent, on a higher per capita productivity in terms of publications and a greater impact of these, measured in citations (Scimago Journal Ranks / Scopus, Journal Citation Reports / WoS).

Break (10:00-10:30)

Design thinking working groups: Design thinking 2 (10:30-11:30)

Plenary - Design thinking sessions: Plenary 2 (11:30-12:00)**Break (12:00-13:30)****Oral session: Equity, Diversity and Inclusion (13:30-15:00)**

time [id] title

13:45	[37] The A, B, C of a PhD mom working in STEM fields (and how to not die trying) <i>Presentador: Prof. LANDÁZURI, Andrea (Universidad San Francisco de Quito USFQ)</i> The vicissitudes of a mother of four children, with a PhD in Chemical Engineering, the most relevant factors to lead a balanced life and statistical data of the reality that a scientific woman lives will be exposed during the talk.
14:00	[31] From scientists to mermaids, representation matters <i>Presentador: Dr VILLASANA, Yanet (Universidad Regional Amazónica Ikiam)</i> .Curiosity is inherent in human nature, so understanding ecosystems from the atoms and cells of our bodies to the vast mystery of the universe could be considered an expression of our ability to think, discover, question, analyze, and conclude. The best science requires people from different fields, perspectives, and values, to address different challenges to the well-being of humanity based on our worldviews. In this sense, it is necessary to attract the best talent from different origins to enrich the generation of knowledge. But first, we need to foster the scientific vocations of a diverse group of people, which is possible if we make the presence of diverse and inclusive models more visible in the daily life of science. This contribution will discuss and review recent studies related to the importance of representation in science and social media, contrasting women in science and the live-action The Little Mermaid played by an African-American actress and singer.
14:15	[19] Nascent researchers: challenges and opportunities in scientific production <i>Presentador: Ms LEÓN, Brigitte (Universidad San Francisco de Quito (USFQ))</i> For recently graduated young undergraduates, it is important to find a work group that would offer them opportunities to do research on topics of their interest, considering their ideas and allowing them to develop knowledge and inventions. In Ecuador and other developing countries, workspaces related to research and development for recent graduates are very limited. Few of us have the opportunity to venture into the world of scientific production right after finishing the career. It is a unique and very challenging experience for everything that it involves. I am a young woman who graduated as a biotechnology engineer last year. I have been enthusiastic about circular engineering, bioeconomy and the development of new products. The USFQ Research Program, particularly the Applied Circular Engineering and Simulation Group (GICAS), gave me the opportunity to immerse myself in the exciting world of research and development (R&D) since I graduated. Currently, I am working on a project that takes advantage of agro-industrial wastes in order to obtain biopolymers and value-added products such as bioplastics. I am not only able to research, carry out experiments, and propose ideas, but also to work with specialized technological equipment from other USFQ laboratories and areas, including chemical engineering, mechanical engineering, and microbiology. Generally, it is very difficult to have access to certain technological equipment due to its high cost and because it requires a certain degree of qualification for its use. Although I have not been able to use all the technological equipment directly, I have learned how they work and, above all, to analyze and interpret their results. On the other hand, collaboration among researchers has been one of the pillars to consolidate important advances in the research projects, as well as the constant feedback from professionals with greater knowledge and experience. One of the biggest challenges I have faced in this experience is to achieve an adequate planning and distribution of time and resources available for the project, without losing sight of the objectives and the optimization of the work done. In the medium and long term, I would like to support nascent researchers, especially those young people who have recently graduated in the areas of science, just as I had the opportunity to develop professionally in the scientific world. In addition, I hope that in Ecuador and other developing countries, more funds are allocated for R&D projects that seek the provision of new knowledge and practical solutions to problems. Without any doubt, this will be reflected in an increased number of inventions and scientific publications, which will open doors to more researchers.

14:30 [38] “Career development for Latin American young scientists in Europe: challenges and opportunities”*Presentador: Ms VACA SANCHEZ, Sara Andrea (University of Natural Resources and Applied Life Sciences, Vienna)*

Research in applied sciences is the most valuable instrument for the development of a country or region; however, it is evident that financial resources, but above all human resources, represent a growing limitation. Latin American young scientists face increasing barriers to accessing opportunities to develop and enhance their careers either locally or internationally. This is due to several factors that include, but are not limited to the lack of: research grants, grants for professional internships, funds for innovation and development, global inter-institutional alliances, public-private alliances for entrepreneurs, research projects in international cooperation, and even lack of reliable information resources.

These factors lead to the phenomenon called “Brain drain”, where talented young scientists who have managed to leave the country for their graduate and/or postgraduate studies, are recruited by universities, high-level scientific research centers or companies in the global north. The career offers not only include attractive working conditions, but especially funding opportunities for their research. Unfortunately, in most cases, young researchers settle down in these countries and the research developed is unrelated to the research fields of the territories of origin of the young researcher and focuses mainly on the research interests of the Global North.

This issue has a direct impact on development and innovation in the region, being a determining component in the delay of science development in the countries from the Global South. The European Union recognizes science, innovation, technology and youth as its pillars for development. One of the programs driving these pillars is The European Institute of Innovation and Technology and it alone has had a budget allocation of €2.4 billion between 2014 and 2020. The program has a strong emphasis in young talents however, just few programs are open for non-Europeans and normally with limited spots. Therefore, to achieve global equity in the development of science and innovation, it is essential to create optimal, dynamic and attractive local and international ecosystems, where young talents can obtain a variety of opportunities for education, innovation, interchange and development of their ideas and research projects that respond to the needs of their localities towards sustainable development.

14:45 [44] The role of support networks for women scientists*Presentador: Dr ZAMBRANO, Andrea (Pontificia Universidad Católica Ecuador)*

The number of female researchers in Latin America and the Caribbean has increased in the last few years. However, the inequality between men and women in different areas of science as well as gender and cultural stereotypes are challenges that women face throughout their academic life.

Worldwide different organizations offer professional or support networks.

Support networks allow women to share their common experiences and it has become a way to address this inequality. The aim of this study was to identify the impact of support networks of women in science.

In this study, we conducted a survey in order to collect demographic data, professional trajectory and information about the networks and their influence.

This is the first study evaluating support networks' impact on Ecuadorian women scientists. Our results suggest that they can generate resistance and change individually and collectively in young Ecuadorian researchers.

∴ Networking session and break (15:00-16:30)

Closing Ceremony (18:00-20:00)

Friday 25 November 2022

Plenary session: Plenary 3 (8:00-8:30)

time [id] title

8:00	<p>[11] How did the scientific publication system respond to the Covid-19 pandemic?</p> <p><i>Presentador: Prof. ALMEIDA, RENAN MORITZ VARNIER RODRIGUES DE ALMEIDA (Universidade Federal do Rio de Janeiro)</i></p> <p>Background: The Covid-19 pandemic introduced new complicating factors for the process of scientific publication, such as an unprecedented volume of article submissions. These changes have a potential to significantly alter how scientific communication is done, thus demanding scrutiny. Objective: To assess how the scientific publication system responded to the challenges brought by the Covid-19 pandemic. Methods: The following topics of interest were analyzed with the help of a review of the pertinent scientific literature: a) How were review quality and publication speed affected by the increased volume of Covid-19-related submissions; b) How were Covid-19 retraction and citation rates affected; and c) How was the scientific communication process impacted by the widespread use of "preprints" as a valid ("citable") source of information. Results: Concerning review quality, a number of extremely dubious articles on Covid-19 treatment managed to be published, some of which in relatively prestigious journals. Regarding retractions (and contrary to initial reports), no increase on retractions rate was evident as time passed and the system reached its "steady state". As for pre-prints, problems associated with their use are the practice of "retracting" (withdrawing) pre-prints with no adequate retraction standards and how to effectively evaluate pre-print quality. Conclusions: As a whole, the scientific publication system seems to have survived well the unusual circumstances arising from the pandemic; e.g., no increase in retractions rates was observed. Problems remain to be dealt with, particularly regarding the improvement of the peer review quality and the citation / evaluation / retracting of pre-prints.</p>
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Oral session: Miscellaneous (8:30-10:30)

time [id] title

8:30	<p>[56] The role of indigenous language for the First Nations in Canada</p> <p><i>Presentador: TEEGEE, Mary (Executive Director at Carrier Sekani Family Services)</i></p>
8:45	<p>[16] Effective Writing Strategies to Increase Citations</p> <p><i>Presentador: Dr ALEXIS, FRANK (Universidad San Francisco de Quito)</i></p> <p>Writing publications is one of our academic duties to share the advances of the state of the art with the community. Due to the current ranking system of the universities, the number of citations remain a criterion of discussion. Nevertheless, there are some practical writing and visibility strategies to increase the number of citations. We will discuss relevant and practical ways to boost the citations possibilities to provide guidelines to the authors during the publishing process.</p>
9:00	<p>[21] Ethics and the Everyday: Unpacking the Morality Framework in the Use of Mainstream Zimbabwean Languages in Sexuality Education</p> <p><i>Presentador: Dr SIBANDA, Lidion (National University of Science and Technology)</i></p> <p>Generally, the greatest impact of sexuality on the developmental stages of an individual is experienced during adolescence and young adulthood. In adolescence, development attempts to figure out identity, establish goals and priorities for adult life and this often leads to an identity crisis. Beyond adolescence, young adulthood developmental stage attempts to establish and build upon relationships culminating in intimacy or isolation. Navigating through these developmental stages depends on the individual's moral framework which is in-turn modelled by the individual's ethical framework. Ethics refers to what distinguishes right from wrong in the way people interact with the real world and an ethical framework is a set of codes that an individual uses to guide his or her behavior. Therefore, individuals may make different moral judgments on the same situation and what one thinks is the best solution for a particular problem is his or her moral framework. Generally, cultures and therefore languages have individual moral framework. However, it is known that guidelines on ethical practice in research and education of these vulnerable groups is hinged upon protection from potential sexual, economic, emotional and political exploitation (the four pillars). Ethical guidelines mandate additional protective measures for minors because of power relations between adults and children which exposes their inherent vulnerability, for example, to sexual exploitation. Therefore, while the aforesaid four pillars warrant attention, we argue that language and cultural perspectives must be integrated into the moral framework for education and learning in diverse mainstream languages. Through an analysis of mainstream languages and cultures in Zimbabwe as well as engagement of language experts, learners and educators in an ethnographic study, we show draw up an integrated moral framework for Zimbabwe on the appropriateness of indigenous languages in sexuality education. We conclude that sexuality education must be taught in indigenous languages only after contextualization into the aforesaid moral framework otherwise imbedded norms and contradictions that shape relationships will promote unintended extrapolations. It is recommended that, where these extrapolations emerge, further research must focus on contextual approach to insight people's everyday ethical practice, norms and values motivating their decisions.</p>

9:15	<p>[41] Climbing down the Ivory tower – Using knowledge co-production to make science available, accessible, and inclusive.</p> <p><i>Presentador: Mr GUERRÓN-OREJUELA, Edgar (University of South Florida)</i></p> <p>Traditionally, research in the fields of resources management and sustainability has only been performed by scientists. We collect and analyze data, reach conclusions, and draft recommendations without knowing and understanding the social dynamics of our study area and whether what is being recommended is practicable or even feasible. This research approach, often, leads to a disconnection between science and implementation, which, in turn creates sentiments of dissatisfaction and distrust in the scientist and the scientific process. If our goal is to produce science that is impactful, credible, and usable, decision-makers and stakeholders must be part of the scientific process. Knowledge co-production is interdisciplinary, iterative, and is normally used to generate practical knowledge or change social and political structures. We believe that shared understanding and tools facilitate communication and enhance resource management, and lead to well-informed, science-based, collaborative decision-making. Furthermore, by setting aside time and providing a safe environment for stakeholders and decision-makers to ask questions and be heard, we are able to establish working relationships and, together, learn about the complexity of natural resources management and sustainability analysis. We are applying these concepts in a project in the Kenai Peninsula Lowlands, Alaska, USA, where one of the biggest challenges we face today is having enough groundwater for people and the environment. Groundwater is an essential, yet limited resource and it's used for many consumptive uses, especially in rural settings where centralized water resources are limited. However, it is also used by groundwater-dependent ecosystems, including wetlands, streams, and estuaries. Groundwater discharge to riparian wetlands and streams play fundamental roles in supporting streamflow, e.g., through modulating stream temperatures and delivering nitrogen and carbon subsidies to streams. These processes are critical for the maintenance of stream habitats utilized by overwintering juvenile salmonids. As regional population grows, consumptive use of groundwater is expected to increase, stressing this limited resource. Results of this project include groundwater specific stakeholder workshops and trainings, community outreach events, groundwater field trips, and groundwater educational material. These products are driving a community-wide conversation about the limited but shared groundwater resources; and are further being used to inform local decision-making and to showcase the use of groundwater vulnerability modeling and collaborative decision-making to other communities facing competition for groundwater so they, too, may consider this approach.</p>
9:30	<p>[45] La inclusión educativa universitaria y la realidad de un ingeniero químico en la industria farmacéutica.</p> <p><i>Presentador: Mr CRIOLLO, Jhonatan (Universidad San Francisco de Quito)</i></p> <p>Español:</p> <p>El Ecuador se caracteriza por ser un país rico en biodiversidad a nivel de fauna y especies vegetales. También posee una gran variedad de culturas locales que enriquecen a la población con sus tradiciones, historias e identidad. En este trabajo, se comparte la visión en primera persona sobre la inclusión cultural en la educación superior desde el punto de vista de un integrante de la cultura Caranqui con un cuadro leve de discapacidad auditiva, resaltando como el ambiente universitario es crítico para inspirar, generar y fomentar la identidad cultural. Por último, se detalla los retos de integración al ambiente laboral en la industria farmacéutica para un ingeniero químico, las barreras profesionales y normativas que impiden el progreso laboral.</p> <p>English:</p> <p>Ecuador is characterized as a country rich in biodiversity in terms of fauna and vegetable species. It also has a great variety of local cultures that enrich the population with their traditions, stories, and identities. In this work, the first-person view of cultural inclusion in superior education is shared from the point of view of a member of the Caranqui culture with a mild hearing disability, highlighting how the university environment is critical to inspire, generate and promote cultural identity. Finally, the challenges of integration into the work environment in the pharmaceutical industry for a chemical engineer, the professional and regulatory barriers that impede work progress are detailed.</p>
9:45	<p>[39] Indigenous knowledge interaction network between host plants and edible insects in the Ecuadorian Amazon</p> <p><i>Presentador: Ms GUACHAMIN ROSERO, Michelle (Universidad Regional Amazónica Ikiam)</i></p> <p>Globally, nearly two billion people consume approximately 2,111 species of insects, 92% of which are harvested directly from their natural ecosystems. However, intensifying insect harvesting causes ecological alterations and biodiversity loss. In the Ecuadorian Amazon, the Kichwa people are the primary consumers of insects. Thus, this study characterized the diversity of edible insects, host plants, and cultural significance among two peri-urban Kichwa communities. We used photo-elicitation, free-listing, semi-structured interviews, and in situ walk-in-the-woods to identify relevant edible insects. Then, we used species accumulation curves, the Saliency Smith Index (SSI), ecological interaction networks, and extinction models to assess insect-host species interactions and cultural significance. We registered 19 edible insect species from three orders and six families. Furthermore, we reported two new species for the world list of edible insects and one for the Ecuadorian list. Ten insect species were associated with 21 host plant species. The interaction between the <i>*Rhynchophorus palmarum*</i> beetle and the <i>*Bactris gasipaes*</i> palm tree had the highest cultural significance (SSI >0.18, p <0.05). Furthermore, we found that 30% of the insect species and 52% of the host plant species (of which 90% were palms) were essential for conserving the interaction network structure. Finally, the extinction models suggested that host plant species knowledge was intrinsically related to edible insect knowledge conservation. Our findings provide basic ecological and cultural information for developing edible insect breeding projects and safeguarding traditional knowledge.</p>

Break (10:30-11:00)

Design thinking working groups: Design thinking 3 (11:00-12:00)

Plenary - Design thinking sessions: Final discussion and Closing Event (12:00-13:00)