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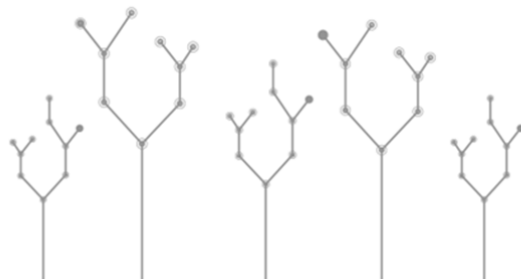
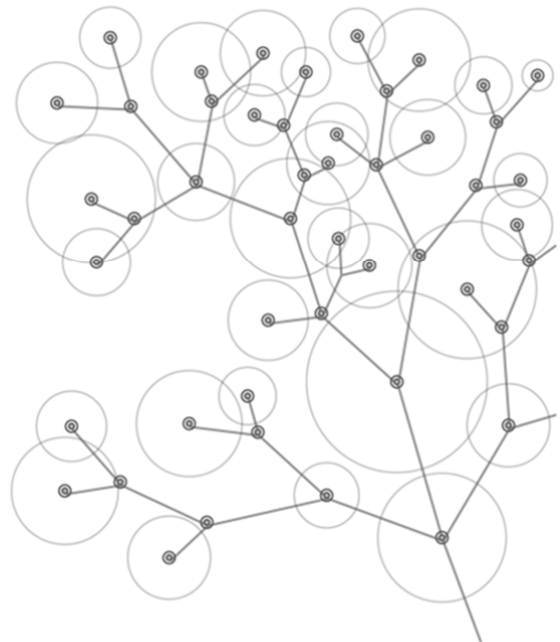
COLLOQUIUM

of Chilean Researchers in Canada

“Mobilizing Knowledge for a Sustainable Society”

Book of Abstracts

6 & 7 of November, 2015
Ontario Institute for Studies in
Education | OISE
University of Toronto, ON, Canada



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DEAN'S OFFICE



Environmental Justice and
Sustainability Committee



Department of Equity Studies
NEW COLLEGE
UNIVERSITY OF TORONTO

8:00 - 12:00	REGISTRATION / Room: Nexus Lounge (12-130, 12th floor, OISE)
8:30 - 8:55	WELCOME REMARKS , Room: Nexus Lounge (12-130, 12 th floor, OISE) <u>Cristian Fernández</u> , <u>Ximena Martínez</u> , REDICEC Directors <u>Sr. Juan Antonio Figueroa</u> , Trade Commissioner, Trade Commission of Chile, ProChile - Canada <u>Dr. Abigail Bakan</u> , Chair of Department of Social Justice Education, University of Toronto
9:00 - 9:45	PLENARY SESSION: ADOPTING A SUSTAINABLE FUTURE <u>Dr. Alejandro Rojas</u> , Associate Emeritus Professor, University of British Columbia
9:50 - 11:05	PANEL 1: ECONOMY AND SOCIAL RESPONSIBILITY <u>Dr. Harry Diaz</u> , Professor, University of Regina, Regina, Saskatchewan <u>Dr. Nahur Melendez</u> , Professor, Universidad de Atacama, Ilustre Municipalidad de Vallenar, Copiapó, Chile <u>Gonzalo Munoz Vera</u> , Ph.D. candidate, School of Architecture, McGill University, Montreal Chair: Cristian Fernandez
11:10 - 11:25	COFFEE BREAK
11:30 - 12:45	PANEL 2: EDUCATION AND SUSTAINABILITY <u>Ardavan Eizadirad</u> , Ph.D. student, OISE at University of Toronto <u>Daniela Bascuñán</u> , Ph.D. student, TDSB & OISE University of Toronto <u>Ximena Martínez</u> , Ph.D. student, OISE University of Toronto Chair: Maria José Torrejón
12:50 - 13:30	LUNCH
13:35 - 14:35	3-MINUTES PRESENTATIONS 10 Speakers (See details on page 8)
14:40 - 16:00	PANEL 3: BUILDING SUSTAINABLE COMMUNITIES <u>Dr. Jaime LLambias-Wolff</u> , Professor, York University, Toronto, ON <u>Norman Kearney</u> , Ph.D. Student in Environmental and Social Sustainability at University of Waterloo, ON <u>Paola Farías</u> , Ph.D. Candidate, Universidad Metropolitana de Ciencias de la Educación, Santiago, Chile Chair: Ximena Martinez
16:05 - 17:00	PLENARY SESSION: SUSTAINABLE ENERGY DEVELOPMENT <u>Dr. Jose Etcheverry</u> , Associate Professor, York University, Toronto, ON
17:05 - 18:30	POSTER SESSION & COCKTAIL
19:00	SOCIAL EVENT (Optional)

SCHEDULE Saturday, November 7 2015

8:00 - 12:00	REGISTRATION / Room: Nexus Lounge (12-130, 12th floor, OISE)
8:30 - 8:55	WELCOME REMARKS / Room: Nexus Lounge (12-130, 12th floor, OISE) Colloquium Organizing Committee
9:15 - 10.00	PLENARY SESSION: SOCIAL JUSTICE AND SUSTAINABILITY Dr. <u>George Dei</u> , Professor, Department of Social Justice Education, University of Toronto
10.00 - 11.15	PANEL 4: SOCIAL INCLUSION AND SUSTAINABILITY Dr. <u>Ilich Silva-Peña</u> , Visiting Professor, University of Alberta, Alberta, Canada; Professor, Universidad Católica Silva Henríquez, Santiago, Chile <u>Ariella Orbach</u> , Juan Rain, Independent consultant. A2delante, Montréal, QC <u>Abelardo Leon</u> , Ph.D. student, Concordia University, Montréal, QC Chair: Cristian Fernandez
11:15 - 11:30	COFFEE BREAK
11:35 – 12:45	PANEL 5: CHILE & CANADA: BUILDING OPPORTUNITIES Dr. <u>Emilio Alarcon</u> , Assistant Professor, Department of Biochemistry, Microbiology, and Immunology, University of Ottawa & Department of Cardiac Surgery Research, University of Ottawa Heart Institute, Ottawa, ON Dr. <u>Fernando Valiente</u> , Professor, Faculty of Medicine, Universidad de Chile <u>Rodrigo Delgado</u> , MBA, CALDO Consortium Representative Chair: Carla Abarca
12:50 - 13:30	LUNCH & POSTER SESSION
13:35 - 14:55	PANEL 6: EDUCATION AND SUSTAINABILITY Dr. <u>Marisol Marfull</u> , Dr. <u>Tara Flanagan</u> , McGill University, Montreal, Quebec Dr. <u>Francisco Astudillo</u> , Professor, Universidad de Atacama, Copiapó, Chile Dr. <u>Patricio Miranda</u> , Director Programa de Acceso y Permanencia en Educación, Universidad de Santiago de Chile, Santiago, Chile Chair: Maria José Torrejón
15.00 - 16.00	CLOSING REMARKS: REDICEC Assembly Chairs: Carla Abarca, Dr. Fernando Valiente, REDICEC Directors
19:00	SOCIAL EVENT (Optional)

Discussion Panels Abstracts - Friday

1. Harry Diaz, Ph.D., Professor, University of Regina, Regina, Saskatchewan, Canada, **Adaptation to climate change and sustainable development in Chile**, harry.diaz@uregina.ca

Climate change is occurring and all human societies must adapt to its impacts. However, adaptation can take many forms, have many purposes, and lead to a range of outcomes. How human societies choose to adapt and to what purpose are extremely important points to consider. There is increasing recognition that climate change adaptation must move beyond a focus on solely reducing climate vulnerabilities in isolation of other critical considerations. These other considerations relate to ways of maintaining or improving social justice, environmental integrity, and economic efficiency and productivity, which provides linkages between climate change adaptation and sustainability. Otherwise climate change adaptation actions and strategies may unintentionally increase vulnerability (i.e., lead to maladaptation), leading into unsustainable practices and perpetuating inequitable power relations, or do not adequately addressing the distributional elements of climate change impacts. Avoiding such unintended consequences of adaptation requires considering the broader implications for sustainability of different strategies and possibly shifting development trajectories or transforming systems towards more sustainable alternatives. The paper discusses the adaptation policy approach of recent Chilean governments, arguing for the need to integrate the perspective of sustainability into the adaptation strategies. In this perspective, the paper briefly discusses the need to establish a more robust interface between science and policy as a path to sustainable adaptation.

2. Nahur M. Melendez Araya, Pedro E. Zamarca Paz, Académico, Universidad de Atacama, Ilustre Municipalidad de Vallenar, Copiapó, Chile, **Diagnóstico del Escenario I+D+i en el Sector Público Municipal Chileno**, nahur.melendez@uda.cl

Las Municipalidades son corporaciones autónomas de derecho público, cuya finalidad es satisfacer las necesidades de la comunidad local y asegurar su participación en el progreso económico, social y cultural de sus comunas. Sin embargo, se encuentran inmersas en un sistema rígido y lento, limitado por las normativas vigentes. Este estudio presenta un diagnóstico del estado de la gestión de I+D+i en el sector público municipal chileno, contribuyendo a la implementación de una gestión municipal con énfasis en los servicios ciudadanos basada en I+D+i como eje fundamental y fuerza sustentable, que promueva un movimiento a economías basada en conocimiento. Centramos nuestro estudio en el análisis de tres ejes: "Marco Normativo Legal Municipal"; "Normativas, Fondos y Programas Pro-Impulso de I+D+i"; "Marco Normativo para Gestión de la Innovación" Los resultados preliminares reflejan que las normativas vigentes, no favorecen a las Municipalidades en la incorporación de tecnologías para: gestión de servicios; organización interna y participación ciudadana en el desarrollo local. En relación a I+D+i, existen organizaciones, estrategias, normativas, fondos y programas que impulsan la I+D+i, como la "Ley N°20.241" y "El Consejo Nacional de Innovación para la Competitividad (CNIC)". Sin embargo, en Chile no existen normas que estructuren, impulsen y certifiquen la I+D+i. De esta forma es posible afirmar que las Municipalidades tienen escasa participación en I+D+i debido a que: a) No hay evidencia de la existencia de herramientas metodológicas que la impulsen; b) No existen unidades organizativas encargadas de I+D+i; c) carencia de Sistemas de Gestión I+D+i vigentes (o guías de implementación).

3. Gonzalo Munoz Vera, Ph.D. candidate at School of Architecture, McGill University, Montreal, Quebec, Canada, **GoogleStreet View and the current panorama: the sustainability of the sight**, gonzalomunozv@gmail.com

As technology immeasurably grows, so does the World's imagery. Old survey errands to the unknown World out there from early times have mutated to the infinitesimal information of any square meter even in unsuspected sites all around the globe. The World has being totally scanned and measured, depicted, portrayed. The David Harvey's time-space compression (1989) has just completely showed us the way we are heading; not just about distances, but also through images we nowadays associate with distant places. Not only an economy of being anywhere anytime through real time communication systems is shaping the way we interact with distant places

and people, but also an economy of experiencing those places through a pseudo-presence is ruling the way we assume otherness. The aim of this paper deals with the current situation on how images assist us in revealing distant places never seen before through technologies now reachable to everyone. This situation can be assumed both positively and counterproductively. On one hand we finally get to the last corner of the World through multi-corporative projects as Google's and expand the limits of how we envision the World. On the other, it is through the immediacy of the image that we forgo the phenomenal reality places convey. The economy of experience and the quick and tailored responses we get through this imagery propagate also an oversimplification of cultures. Technologies such as Google Street view have brought back to life panoramas in an endless representation. As the Panoramas did in the 19th century, the World out there was the word of just those who travelled and brought back their experiences through painting illustrations. Taste and sight were already being shaped, so did the way we understand and interact with the globe. Both technologies (Panoramas + Google Street View) from their times will be compared through selected examples in order to illustrate the role images have had on our western societies.

4. Ardavan Eizadirad, Educator, OISE at University of Toronto, Scarborough, Ontario, Canada, **The Case of Canada and Chile: PISA and Neoliberalization through Global Educational Assessments**, aeizadirad@gmail.com

This presentation argues that global standardized tests such as PISA, as a symbolic spectacle for status and progress, are being used as tools for the neo-liberalization of societies on a global scale. Furthermore, it is argued that curriculum and educational global policy become dispositif for the homogenization of societies geographically distant and culturally different under the logic of individual freedoms and competition. Comparing the contents of the schooling curricula of Ontario, Canada and Chile in relation to the type of knowledge assessed in the reading domain of PISA, this qualitative study is an attempt to describe how knowledge is normalized, and a hierarchy of knowledge is constructed that rests on the marginalization of indigenous, oral, and non-hegemonic epistemologies and languages. By means of the creation of this knowledge hierarchy, neo-liberal concepts of society and the subject are legitimated as the ultimate face of progress, success, and well-being. Overall, the analysis is carried on through an anti-colonial lens that enables imaging education and teaching practices otherwise. This paper is an invitation to disrupt and subvert hegemonic trends in knowledge formation and to create de-colonized spaces where traditionally and historically marginalized knowledge can come to life in the hope of creating sustainable education systems where learners do not lose interest in education due to systemic barriers, but rather become encouraged to make a difference in their lives and in their communities collectively through empowerment and shared responsibility."

5. Daniela Bascuñán, elementary teacher & PhD student, TDSB & OISE University of Toronto, Ontario, Canada, **Ethical Relationality in the Canadian Settler-Colonial Context: a child's point of view**, daniela_bascunan@yahoo.ca

Objectives: This practitioner inquiry views the classroom as a place for students to imagine an ethical shared future with Indigenous peoples, while confronting history. In this study, I invite my students to mediate their lives and texts, while simultaneously accommodating a higher degree of connection and relationality to Indigenous peoples in the context of the Canadian settler-state. Theoretical Framework: Our primary mode of enacting rationality between colonial actors relies on "re-storying", an over-arching pedagogical mechanism that counteracts the common practice found in educational institutions: that non-Indigenous people need only be educated about Indigenous people, without any "reciprocal sharing by the former about their own history, cultural practices, world views and values", thereby maintaining asymmetrical relationships and sustaining non-ethical interactions with Indigenous peoples (Regan, 2010: p. 34). Methods/ Data: This study showcases a collaborative and participatory student-generated analysis of writing produced by two of my grade three students in a Toronto public school. By interweaving the life texts of these children, classmates co-constructed eight themes, leading to visual representations of collective knowledge. Findings & Significance: Using student writings rooted in their immediate worlds, recent histories were recalled, memories mobilized, and used as a starting point for venturing into notions of societal responsibility in this place. It is in the process of writing and theorizing in and out of each

other's texts—while simultaneously deconstructing the Indian Residential School experience—that young children can develop a perspective that is informed by ethical relations."

6. Ximena Martinez, PhD student, OISE University of Toronto, Ontario, Canada, **Reflexiones en torno a la educación intercultural en Chile y la cosmovisión de los Pueblos Indígena: La alteridad entre la folclorización y la asimilación**

xmartra.martineztrabucco@mail.utoronto.ca

El presente texto examina el programa de Educación Intercultural Bilingüe (EIB en Chile en su definición y objetivos planteando que éstos ponen de manifiesto una paradoja difícil de reconciliar: la relación tensionada entre equidad, identidad étnica y reproducción cultural. Esta paradoja pone al centro la cuestión de los derechos de los pueblos indígenas en materia de educación, desde una perspectiva de integridad cultural y autonomía de acuerdo con los estándares internacionales de derechos de estos pueblos. En lo medular, las contradicciones se presentan cuando se analizan las posibilidades reales de que el Programa de EIB cumpla el propósito declarado de ser una herramienta de fortalecimiento de las culturas e identidades indígenas si se le concibe a éste como un instrumento para reducir brechas interétnicas (indígenas/no indígenas) en el acceso al sistema de educación hegemónico y en el desempeño escolar dentro de él. La reflexión está dada en torno a tres ejes: a) el programa de EIB como instrumento para la reproducción y fortalecimiento de las culturas indígenas dentro del actual escenario político y económico en Chile; b) el rol y espacio que ocupan las cosmovisiones indígenas en el actual sistema de educación formal y su propuesta intercultural y; c) las posibilidades de construcción de ciudadanías pluriculturales en el actual escenario político y económico en Chile. La reflexión se lleva a cabo de la base de que actualmente no existen reformulaciones sustantivas del sistema educacional formal que sean el reflejo, a su vez, de una reformulación de la relación entre el Estado chileno y los "Pueblos Indígenas".

7. Jaime LLambias-Wolff Ph.D., York University, Toronto, Canadá, **Auge y Caída Del Estado De Bienestar En Chile: Economía Política de la Legislación En Salud En Chile**, jlwolff@yorku.ca

Este trabajo analiza la dinámica económica y política del Estado de Bienestar y de la legislación de salud en Chile desde 1925 hasta la fecha. Chile se ha desplazado desde un sistema básicamente caritativo, a un extenso sistema benefactor, evolucionando con posterioridad a un modelo de mercado, y finalmente, al actual sistema mixto público- privado. Los períodos que caracterizan estos diferentes modelos son los siguientes: Estado de Beneficencia Pública (1924-1938); Los inicios del Estado de Bienestar (1939-1952); el Estado de Bienestar durante tres administraciones políticas diferentes (1952-1973); el modelo de mercado (1973-1989) y el modelo mixto (1990 a la fecha).

Para entender las reformas al Estado de bienestar y de la legislación de salud en Chile, se emplaza el marco jurídico en un contexto político más amplio y que se guía por el supuesto teórico de que los cambios legales son el resultado de procesos político expresados en las negociaciones entre las fuerzas económicas, políticas y sociales. De este modo, las transformaciones al Estado de Bienestar y las reformas a legislación de salud en Chile, se deben entender y explicar específicamente dentro del contexto y la influencia de los factores sociales, económicos y políticos y de cómo estos se fueron históricamente manifestando. La intención teórica es captar la ley como un proceso y en su estado transformacional, como el resultado de la interacción entre los diferentes actores involucrados en el proceso político, ideológico y económico

8. Norman Kearney, Ph.D. Student in Social and Ecological Sustainability at University of Waterloo, ON, **Building resilience and participatory learning in urban democracy**, nmkearney@gmail.com

The transition from a growth economy to a sustainable one will require shifts in values, worldviews, behaviours, policy, and law. While social movements, non-profits, and 'Green' political parties have raised awareness of environmental issues and influenced specific policies, comprehensive systems level change will require the voluntary or compelled involvement of corporations and governments. The peaceful path to change is democratic. But how can ordinary citizens acquire the knowledge and skills necessary to participate in complex policy discussions and decision-making? Participatory budgeting is a method of public engagement that has been

adopted in more than one thousand cities around the world. It involves residents of a city in determining how a portion of their municipal budget is spent. The benefits of participation – dissemination of knowledge and skill building – are acquired over time, but in certain cases participatory budgeting has been scaled back or discontinued shortly after initial successes. How can participatory democratic reforms be made socially sustainable so that they have a chance to contribute to the development of a more knowledgeable and capable public? This talk will discuss the democratic rollback of participatory budgeting in Hamilton, Canada, and its subsequent re-democratization. Emphasis will be placed on how to build resilience in urban participatory governance systems.

9. Paola Fariás Donoso, Elisa Zuñiga Garay Ph.D., Universidad Metropolitana de Ciencias de la Educación, Santiago, Chile, **Management as a sustainability tool in educational interventions for promoting health in students of primary school**, paola.farias@umce.cl

This research presents the use of a management model (EFQM) as a developer of an educational intervention to promote nutrition and healthy lifestyles, on 3rd & 4th year of basic primary education or full school day at a school particularly subsidized the commune of Lo Espejo, as a model of educational institution hosting the largest population of students in Chile.

The management of activities allowed the implementation of the intervention, evaluation and feedback. In a first stage, the training of the educational community was held in its entirety, from the holder, the management team and teachers, in order to have a coherent guide for students; and subsequently carrying out activities that allowed active participation of the community, with emphasis on students and parents, mainly based on workshops that promoted the choice of food consumption and the road to healthy lifestyles.

The educational community generated instances of reflection and discussion on the situation of their own health as a mirror of national life, health promotion as an engine of change and generating initiatives promoting change in their lives, their development oriented and reported, in order to move towards a healthier life and a sustainable community.

Discussion Panels Abstracts - Saturday

10. Ilich Silva-Peña, Visiting Professor, University of Alberta, Alberta, Canada; Profesor Titular, Universidad Católica Silva Henríquez, Santiago, Chile, **Role of rural school in Chile for sustainable development**, ilichsp@gmail.com

This presentation is a work of reflection from research conducted by the author around the rural schools. The findings of the research indicate that rural schools today act as catalysts toward of the cities in the center. The rural school would promote the exodus to the larger towns. A specific case is of the Ninth Region in Chile that appears as a space in which the regional centralism that in turn forms part of this other centralism of the capital works. This multiple centralization gets support from school and other subsystems like transport or telecommunications. This paper discusses the role especially should have the rural school in the process of moving towards a public space designed around the generation of sustainable cities. This paper is a proposal for new ways to the rural school in the context of century XXI.

11. Ariella Orbach y Juan Rain, Independent consultant. a2delante, Montréal, QC, Canada, **Trabajo cinematográfico en el Wallmapu: para reconstruir el territorio, compartir conocimientos y construir solidaridad**, ariella@a2delante.ca

En el aylla rewe Budi, territorio Mapuche-Lafkenche ubicado en la IX región de Chile, un equipo de comunicadores y realizadores audiovisuales mapuche utiliza técnicas y tecnologías cinematográficas para investigar y validar conocimientos sobre el territorio ancestral. Desde 2013, un proceso de investigación-acción mediado por la creación audiovisual se desarrolla producto de una colaboración entre investigadores-cineastas mapuche e investigadores académicos y del sector comunitario canadienses.

El concepto de “diversidad bio-cultural” enfatiza la importancia de los espacios territoriales indígenas, reconociendo que la diversidad biológica y la diversidad cultural se relacionan en forma directa e interdependiente. La preservación de una diversidad de identidades, epistemologías, conocimientos culturales, espiritualidades e idiomas es entonces un elemento crítico de la preservación de la biodiversidad y de un desarrollo realmente sustentable. Los pueblos indígenas poseen conocimientos ancestrales que les han permitido lograr un equilibrio entre las diversas formas de vida que cohabitan sus territorios. En la filosofía mapuche, tal equilibrio se denomina ixofil mogen. Al crear espacios inclusivos que promueven la contribución de voces, conocimientos y propuestas indígenas podemos enriquecer los debates sobre el desarrollo equitativo y sustentable.

Sin embargo, muchos de estos mismos debates tienen lugar en contextos donde predomina el conocimiento científico-occidental, comunicado por medio de lenguaje académico y especializado. En esos contextos es un desafío lograr la participación genuina y auto-representativa de poseedores de conocimientos indígenas, quienes eligen transmitirlos de acuerdo con los códigos comunicativos propios.

Es por esto que consideramos que el video sirve como una herramienta potente para la investigación y la comunicación de conocimientos. Esta tecnología de última generación se adapta bien a las metodologías ancestrales de investigación indígena y permite preservar, recrear y valorizar las formas en que el conocimiento indígena se transmite y se traspasa, como la oralidad.

Presentaremos nuestro trabajo conjunto de investigación-acción, un proceso en desarrollo que se enfoca en la revalidación de conocimientos y prácticas vinculadas a los territorios ancestrales, usando como método de investigación y de comunicación de conocimientos la creación audiovisual indígena. Cuando las cámaras y los programas de edición están en las manos de investigadores y jóvenes comunicadores de las comunidades indígenas, ellas y ellos se apropian de las técnicas y del arte del cine documental para realizar creaciones desde la visión propia de su cultura. A pesar de que este proceso de investigación-creación involucra a investigadores-cineastas de varias naciones indígenas en Chile, Canadá, Panamá y Noruega, centraremos nuestra presentación en el trabajo investigativo que se está realizando en el territorio Mapuche-Lafkenche del Aylla Rewe Budi y en las

particularidades de la creación cinematográfica mapuche.

Nuestra presentación se hará en conjunto con un integrante del equipo de investigación mapuche (via grabación previa) y una integrante del equipo canadiense. Presentaremos un ejemplo de un producto audiovisual que ha salido de este proceso de investigación-creación."

12. Abelardo Leon, Mr., Université du Québec à Montréal, UQAM, Montreal, Quebec, Canada. **Public Discourse on Homosexuality in Chile: empathy and sexual diversity as sustainable social development**, leonabelardo@yahoo.com.mx

"Many records in civil, political and social fields indicate an increasing willingness in Chilean society for the recognition of Lesbians Gays Bisexuals and Transgender (LGBT) civil rights during the last decade. These changes are expressed only recently (the Antidiscrimination Law Number 20609 approved in 2012; Civil Union Agreement (AUC) approved in 2015). In parallel to these legal changes, public opinion has shown significant support for sexual diversity, expressed in the increased number of people participating in marches demanding more civil rights for homosexuals and lesbians (MOVILH, 2013).

Although these examples are in sharp contrast to a society that has historically repressed LGBTs, we do not have too many details about how the institutional discourse of sexual diversity has been framed in the context of the heteronormativity, and the socio-economical liberal tradition. I presuppose that these two discursive dominant traditions have had deep influences over the homosexual agency. In this sense I consider it necessary to delve into how public discourse of homosexuality has been shaped in Chile after the transition to democracy; which communicative factors have enabled the modeling of the homosexual as a citizen subject occupying a position within the civic society; and how these changes are helping to change the historical behavior based on prejudice and discrimination in Chilean society. I will use Critical Discourse Analysis as part of my methodology based in the fieldwork conducted in the first semester of 2015.

Part of my assumptions in this proposal is that empathy has played a very prominent role in the pursuit of recognition of LGBTs. In this sense, empathy plays an important role not only in our biological background which has allowed us to survive as specie (de Waal, 2009), but it is also crucial to the construction of a collective identity and the adhesion to (or detachment from) a group. In this sense, the process of gaining empathy for sexual diversity and civil rights has meant dismantling the discursive structures that portrayed gays, lesbians and transgender people as deviated subjects, linked to social prejudices of race, class, age and economic status. Thus, the success of LGBT organizations is closely related to the strategy to communicate their own history as a stigmatized group reinforcing values of civil society, democracy and social justice.

Part of my conclusions are: 1) The blossom of sexual rights in Chile, as part of the massive social movement, represents a crisis in the main project of introducing Chile in the project of Modernity in the later 60s and in the neoliberal model during 90s; 2) In this scenario, LGBT struggles for civil rights represents the historical tension for the control and deregulation of bodies (particularly in woman's body); 3) LGBTs equal sexual rights main contribution has been the reinforcement of democratic values, reducing prejudices and creating opportunities for people historically marginalized by their sexual identity; 4) However, the challenge for"

13. Emilio I. Alarcon Ph.D., Director, Bio-nanomaterials Chemistry and Engineering Laboratory, Division of Cardiac Surgery Research, University of Ottawa Heart Institute, Ottawa, ON, Canada, **Consolidating the scientific collaboration between Chile and Canada: Finding common needs and challenges**. ealarcon@ottawaheart.ca

Chile is one of the wealthiest and rapidly growing economies in Latin America. However, the enormous efforts of the Chilean government for potentiating basic and applied sciences must encompass a more dynamic scientific mobility policy, where the two parties will mutually benefit out this collaboration. In this panel, we will discuss the current needs in the basic and applied sciences in Chile and Canada that will help to target new opportunities for collaborations, like student exchange programs, grants and awards.

14. Marisol Marfull, Ph.D., Tara Flanagan, Ph.D., Professor, McGill University, Montreal, Quebec, Canadá,

Inclusion Quality in Chilean Preschool Classrooms: Gathering Baseline Data and Exploring School Stakeholders' Beliefs about Inclusion.

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This mixed-method study measured the quality of regular preschool classrooms as well as their level of inclusion quality in a sample of 31 Chilean regular schools operating inclusive preschool classrooms. Beliefs about inclusion held by school main stakeholders (i.e., principals, vice-principals for curriculum development, resource teachers and early childhood educators) in 11 of those schools were also measured. Quantitative information was gathered using the Early Childhood Environment Rating Scale-Revised Edition (ECERS-R) (Harms et al., 2005) to determine the quality of the regular preschool classroom; a piloted version of the Specialink Early Childhood Quality Scale (Irwin, 2009) was utilized to identify practices implemented by schools as well as the principles guiding inclusion. Quantitative data showed that the majority of schools obtained a mediocre care level of overall preschool quality. To compare performance between public and semi-public schools, an independent t-test was executed. Results showed that compared to public schools, semi-public schools scored significantly higher on the parents and staff's ECERS-R subscale. In regard to inclusive preschool quality, results showed that schools scored at a less than minimum level. To determine the differences between the principles and the practices scores, a repeated-measures ANOVA with two factors, one by subscale (within-subjects effects) and one by type of school (between-subjects effects) was executed. Statistically significant differences were found between the practices ($M = 2.71$, $SD = 0.82$) and the principles ($M = 3.19$, $SD = 0.81$), the two subscales of the Specialink scale, $F(1, 29) = 30.173$, $p < .001$. The qualitative component identified main themes on the categories: influences, conditions for child's acceptance, strengths, challenges, support and resources, additional support/resources, and school stakeholders' main beliefs and understandings about inclusion. Implications of the qualitative results are identified at the microsystem (i.e., the classroom setting), the mesosystem (i.e., community need(s) and relationships between institutions: family-school, school-community dyads), the exosystem (i.e., represented by Chile's educational and tax reforms, the passages of particular laws and policies and school board decisions), the macrosystem (i.e., stakeholders' beliefs and understandings about why inclusion should be implemented at their schools) and the chronosystem (i.e., Chile's particular historical moment which is the result of historical influences), all layers and institutions impacting school related issues. Results from the present study highlight a differential understanding among school stakeholders about what inclusion is, with administrators scoring the lowest for the "valuing diversity" category. Recommendations include the need for closer collaboration between institutions (i.e., school, parents, community) as well as the creation and promotion of key alliances and partnerships between them. Future implications include the need to work more closely in their leadership and advocacy roles as well as accurately identifying the schools' strengths and needs in order to progress toward higher quality inclusion. It is hoped that by implementing these recommendations and implications, participating schools would move toward greater inclusion quality and encourage others to take action toward this goal. It is also expected that data from this study will be helpful for Chile to support its commitment to provide quality education for "all".

15. Francisco Astudillo Ph.D., Académico, Universidad de Atacama, Copiapó, Chile, *Emergiendo desde El Olvido: El Río Copiapó, la Nostalgia y la Esfera Pública.*

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A comienzos del año 2011, habían pasado ya seis años desde que el Río Copiapó en la Ciudad y el Valle del mismo nombre, había dejado de correr por los tramos medios y bajos del valle, su desaparición se explica por el incremento en los niveles de consumo industrial de agua por parte de las grandes industrias locales de la gran minería y la agroindustria. La sequedad del valle y su desaparición está directamente vinculada a la mercantilización del agua en el marco de las transformaciones del neoliberalismo en la región. No obstante, más allá de su desaparición y su ausencia física y material, el Río Copiapó estaba además olvidado colectivamente. Desde el año 2008, habían surgido una serie de organizaciones sociales que habían intentado problematizar la crítica situación hídrica en la ciudad y el valle, no obstante aquellos esfuerzos solo involucraban a los grupos ya informados y se enfrentaban a la indiferencia de la población. El olvido colectivo y la ausencia social y simbólica del río en la esfera pública pueden ser comprendidas en el marco de una historia minera en la que la naturaleza y

el medioambiente han tenido un lugar abstracto e instrumental, de la mano de la noción de la naturaleza como recurso natural. En ese naturalizado marco distópico y ante la ausencia y el olvido, es que con la agrupación cultural Atacama59, diseñamos y ejecutamos la campaña colaborativa "Río Copiapó: Memoria Histórica en Imágenes", con el objeto de reposicionar al río como referente simbólico, (re)construir la memoria colectiva y problematizar la cuestión hídrica. La campaña partía de una invitación abierta a compartir imágenes, experiencias, memorias y anécdotas en torno al río. Los objetivos de dicha campaña llevaron a buscar y repensar los medios, los espacios y los lenguajes comunicativos con los que invitar e involucrar a la comunidad, buscando (re)construir nuestra memoria en la esfera pública, considerando espacios como la ciudad, la calle, el río seco, los entornos virtuales y la opinión pública como componente de la esfera pública. Ejecutada entre los meses de enero y agosto de 2011, nutrida a partir de la colaboración de múltiples colectivos ciudadanos, instituciones, vecinos y vecinas de diversas edades, y con la mediación de la afectividad de la nostalgia, se (re)construyó participativamente la memoria colectiva en torno al río y se contribuyó a problematizar la desaparición del río en el marco del modelo extractivista del norte chico, marcando un punto de inflexión en los imaginarios colectivos y el sentido común en Copiapó. El análisis de las interrogantes teóricas, los métodos de acción y las motivaciones políticas de la campaña nos llevaron a problematizar desde mi propia participación, una teoría de la resonancia social que responda a la necesidad comprender la complejidad de las esferas públicas, entendiendo que ninguna problematización sobre la sustentabilidad es posible sin una esfera pública receptiva."

16. Patricio Miranda Rebeco, Universidad de Santiago de Chile (USACH), Sebastián Vielmas Rodríguez, L'Université Laval; Director Área de Estudios, Programa de Acceso y Permanencia en Educación, Universidad de Santiago de Chile, Santiago, Chile, **(Des) articulación sociedad civil-academia-estado en Políticas de Acceso y Permanencia en Educación superior en Chile**, patricio.miranda.r@usach.cl

Se pone en discusión, en un primer momento, la tesis de que el significado y alcance ético político de "la movilización de conocimientos para una sociedad sustentable" se comprende mejor en su densidad teórica e histórica desde su negación. Negación que en el caso de la Dictadura en Chile torna a la misma sociedad chilena en insustentable y desmovilizadora. Negación que en el sistema educativo, puesto en marcha en la Dictadura, se sustentó en la privatización y el libre mercado de las instituciones de educación, desde el nivel preescolar hasta el superior. Negación que, parafraseando a la OCDE, se refleja en que «el sistema educacional chileno está conscientemente estructurado por clases». Estructuración que impone un muro que, hasta el presente, impone resistencias estructurales a políticas educativas inclusivas, produciendo y reproduciendo estratificación y segmentación. En un segundo momento, en la línea de buscar aportar desde la ciencia a reducir la brecha existente en la actual formación socioeconómica y cultural en Chile, se presentan los avances de un proyecto de investigación que se pregunta por las condiciones de posibilidad para la incidencia de la sociedad civil en la formulación de políticas inclusivas en educación superior en Chile. Para ello se despliega un análisis crítico de las relaciones dinámicas entre instituciones, subjetividades y conocimientos prácticos que estructuran el espacio de articulaciones sociedad civil-academia-estado en el caso del actual Programa de Acceso y Permanencia a la Educación Superior en Chile (PACE).

3-Minutes Presentation Abstracts (Friday)

17. Francisco Rivera Amaro, Programa de Doctorado, Departamento de Antropología, Universidad de Montreal, Colegio de Arqueólogos de Chile A.G., Montréal, Quebec, Chile, **El Rally Dakar y la destrucción del patrimonio arqueológico de Chile: acciones, tensiones y valoraciones**, franchurivera@gmail.com

Fundado a fines del año 2009, el Colegio de Arqueólogos de Chile ha asumido un rol activo en el resguardo del patrimonio cultural en general, y arqueológico en particular, del país. Como agrupación gremial que agrupa los intereses profesionales de los arqueólogos de Chile, ha estimulado la discusión y desempeñado un papel protagónico en lo que concierne a diversos temas de la contingencia nacional. Uno de ellos ha sido la realización del Rally Dakar en Chile, que desde su primera edición en el año 2009 ha visto el rechazo y oposición de esta y otras instituciones ligadas al ámbito patrimonial. Desde esa fecha, el Colegio de Arqueólogos ha denunciado el daño sistemático de los sitios arqueológico a causa de la realización del Rally, llegando a instancias legales que lamentablemente fueron desestimadas por las instituciones judiciales. Esta presentación expondrá el rol del Colegio de Arqueólogos en la discusión sobre la realización del Dakar y la destrucción de sitios arqueológicos en el norte de Chile, buscando reflexionar sobre las tensiones y contradicciones existentes en las esferas pública y privada (Estado, instituciones, organización, sociedad civil) en el marco del resguardo del patrimonio cultural del país. Lo anterior nos obliga a afrontar una reflexión propiamente patrimonial sobre nuestras responsabilidades como sociedad frente a nuestro pasado. ¿Por qué es importante? En el marco del presente coloquio nos interesa situar la práctica arqueológica como una disciplina política, insoslayable para el desarrollo sustentable del país.

18. Hugo Collao, Msc Ing Civil Industrial, Académico, University of La Serena, Coquimbo, Chile, **La Contribución del Capital Social a la generación de Innovación para la Competitividad como pilar clave para el Desarrollo Sustentable**, collao.hugo@gmail.com

El concepto de Capital Social tuvo sus orígenes en estudios que buscan comprender fenómenos sociales relacionados con la pobreza pero poco a poco múltiples investigadores en el mundo han empezado a analizar los efectos directos e indirectos que puede tener en otras disciplinas, como la economía, en la cual se han propuestos distintos modelos econométricos que permiten comprender de mejor forma su comportamiento.

Actualmente no existen indicadores directos de Capital Social y Competitividad, pero es posible relacionarlo de forma indirecta a través de indicadores internacionales de innovación versus indicadores internacionales de competitividad. Estos indicadores de competitividad incorporan variables como Desempeño Económico, Eficiencia del Gobierno, Eficiencia en los Negocios e Infraestructura y Conocimiento. La generación de Capital Social estará asociada a la Cantidad y Calidad de Redes, Normas y Confianza que permiten entornos de Cooperación.

Actualmente, en la Universidad de La Serena, existen estrategias que incentivan a los profesionales académicos a publicar artículos basados en diferentes temáticas. No obstante lo anterior, no existe un marco regulatorio que permita medir y comparar los resultados obtenidos. El reconocimiento formal de la contribución del Capital Social al Desarrollo, es el primer paso para profundizar líneas investigativas globales y de contingencia, permitiendo definir métodos de seguimiento y control a los procesos de generación de conocimiento y transferencia tecnológica.

19. Javier Mella, Ph.D. Candidate, School of Business, McMaster University, **Politics and returns: A dissection of the Presidential Puzzle** javier.mella@gmail.com

In this preliminary version of this paper, I provide additional evidence of the relationship between politics and stock returns. The presidential puzzle is dissected and is found to be explainable by a risk factor, consistent with market reactions once presidential election outcomes are known. Additionally, evidence of a presidential puzzle in Latin America was found to be mixed.

20. Luz Bascuñán, Ana Csillag, Ximena Martinez; Directora Escuela Pioneros de la Paz, Toronto, Ontario, Canada, **Escuela Pioneros de la Paz: a Sustainable Model of Community-Building through Education**, luzbasuncan@gmail.com

Objective: This presentation will showcase the work of Escuela Pioneros de la Paz—a community-based learning experience for children 4 to 12 years—aimed at developing social and emotional literacy skills, thus more effectively affecting their interactions with each other while developing leadership skills. The program utilizes a fluid bi-lingual (Spanish/English) approach as a vehicle in which to focus on Latin American culture and history, thus providing a viable model of sustainable education.

Methods: Escuela Pioneros de la Paz incorporates the contribution and participation of teachers, artists, and members of the community to offer a multi faceted program which includes visual arts, creative writing, music, dance and movement, taught from an anti-racist perspective that promotes a positive understanding of the roles and contributions of Latin American peoples. It is premised on culturally-responsive learning, using as a starting point the self, family and community as epistemic sources of knowledge.

Relevance & Significance: Students develop an understanding of the various reasons for immigration to Canada (political, social upheaval, living conditions, family ties, economic conditions). Children explore their own place and that of their families within a larger context, in doing so define/ redefine their own identities in their mother tongue, and delve into issues of language maintenance/loss. They examine how the various cultures in Latin America came to be and explore the contributions of individuals or groups to our community, and to the world. Students co-construct their identities with others and simultaneously develop a sense of civic responsibility in their communities and beyond."

21. Monica Wigand and Ana Gonzalez, Graduate Students, Niagara College, ON, Canada, **Una Mirada práctica a la experiencia Canadiense en el desarrollo de la industria turística**. mwigandm@gmail.com

The goal of the program "Técnicos para Chile" is to enhance technicians in their professional development in relation with strategic economic sectors such as tourism industry. In this context, the post-graduate program "Hospitality and Tourism Management" at Niagara College provides the skills and abilities for business management in tourism areas, such as marketing, and accommodation. This through academic instruction and practical experiences.

The purpose of this presentation is to provide a practical overview of the tourism industry development in Canada as a coordinated effort between public and private sector. To exemplify this, we have taken as illustration some implemented strategic decisions to transform this industry in one of the main engine of the regional economy by taking the advantages of the attractions and activities that the region has to offer for the visitors. Through these measures it is possible to observe the multiplier effect they have had on the region by using the resources efficiently aiming increase to sustainable tourism that set apart the country as a unique destination, capturing the authenticity of each region, motivating tourists to keep exploring Canada.

The Canadian experience demonstrate the importance of involving different specialized areas in developing research in order to adopt appropriate measures that may strengthen the country.

22. Rodrigo A. Montefusco-Siegmund, Ph.D., Post-Doctoral Fellow, York University, **The path to real equality**, yoguideincomma@hotmail.com

Factors such as stress, bad nutrition, and addictions, can impair cognitive performance by altering genetic expression. Research has also shown that epigenetic, the regulation of gene expression via chromatin modifications is heritable; meaning the decisions of our ancestors can dictate our biological makeup. This has contributed to a socio-economic inequality at a very fundamental level. We are not born in same conditions.

Many approaches may solve this problem: environment enrichment, nutrition, physical activity, and early brain stimulation, all improve cognitive functions. By studying the relationship between the epigenetic profile and neurophysiological patterns of behavior, I aim to find a way to reverse the effect from previous generations on cognitive deficiencies, moving society towards greater access to equality of opportunities.

23. Yanina Vecchiola, Académico, Universidad de Atacama, Copiapo, Chile, **Responsabilidad social en la empresa minera de la Región de Atacama**, yanina.vecchiola@uda.cl

La minería constituye la principal actividad económica de la región de Atacama. La minería es una actividad que utiliza recursos escasos como son el agua y la energía y sus procesos son contaminantes aun cuando utilicen tecnologías que minimicen los impactos ambientales. En los últimos años el país ha avanzado en tomar conciencia en aspectos sociales y medioambientales lo que ha implicado que las mineras generen modelos de negocios que integren el concepto de responsabilidad social, que ayuden a gestionar un activo intangible que es la reputación ante stakeholders que las están condicionando. Con el propósito de conocer la implementación de RSE se eligieron las empresa mineras que declaran en su misión la responsabilidad social. La primera etapa del trabajo de investigación es de tipo exploratorio para conocer el grado de involucramiento de las empresas con la RSE. Se estudiaron 6 empresas mineras. La información se recolecto a través de una entrevista estructurada con lo cual se pudo elaborar un diagnóstico de la situación actual en relación a la forma en que se ha integrado la RSE en la estrategia de la empresa. Entre las conclusiones que se pudieron obtener es que se ha incorporado desde el año 1999, existe confusión éntre las ISO 26000 y el GRI, diferencia entre lo que se comunica y lo que realmente se hace en RSE y por último la RSE se concentra en un departamento o la alta gerencia con un bajo.

24. Patricio Bascunan, Paula Larrondo, Luis Tapia, President, Chilean Canadian Cultural Society Casa Salvador Allende, Toronto, ON, Canada, **Chilean Canadian Cultural Society Casa Salvador Allende – Creando vínculos intergeneracionales con Chile y Canadá**, patricio.bascunan@cupe4400.org

Objetivo: Este panel presentará la experiencia de tres generaciones de chilenos residentes en Toronto comprometidos en la preservación cultural a través de cuatro décadas; el panel discutirá los meritos de estrategias participativas y de colaboración de los chilenos con la sociedad canadiense en el logro de un ambicioso plan de trabajo de extensión cultural y participación ciudadana y su impacto en la sociedad canadiense.

Método: La inserción de CASA en la sociedad canadiense ha permitido identificar áreas de necesidades de la comunidad las que son incorporadas en el programa de CASA. Peñas, conciertos, recitales, obras de teatro, conmemoraciones de eventos históricos de Chile y América Latina constituyen parte del programa anual de CASA.

Relevancia: CASA es la organización de chilenos con más alto impacto en Ontario; su vínculo con organizaciones educacionales canadienses influyó en el desarrollo de una investigación que identificó el alto riesgo escolar de jóvenes latinoamericanos; inmediatamente CASA creó la Beca Salvador Allende que ha favorecido a 30 estudiantes de origen chileno/latinoamericano en sus estudios post secundarios.

La defensa del medio ambiente es otra área de interés de CASA. El Diploma Pedro Gutiérrez premia la participación de niños de las escuelas primarias por su liderazgo en la defensa del medio ambiente.

25. Oscar Aguila Rojas PhD student in Social Inclusion and Disability Intervention, Faculty of Psychology and Education Research, University of Deusto Bilbao, Spain, **Inclusion of students with disability in Chilean higher education inside the educational reform: Developing support from a quality assurance approach for institutional disability services in Chilean universities**. oscar.aguila@deusto.es

The Chilean higher educational system currently pass through a deep reform process, which involve all educational levels. The new regulations also include the complete transformation of the quality assurance in higher education. Therefore, the universities have to quickly transform their organizational structures and policies to fit in the reform process. One of the main points of the new national regulations is the incorporation of gratuity for the most disadvantaged students with special focus in the equality and educational inclusion of disabled students. The Chilean institutions (in almost all cases) are not prepared to provide the special support services for disabled students either in the academic or institutional services. This doctoral thesis research the inclusive educational process through the revision of literature about the higher education and disability topic, disability

models, inclusive education, the Chilean higher education and quality assurance systems (accreditation), inclusion and quality in higher education among other related topics; plus, made a qualitative study about the reality of the disability support systems inside four universities: Deusto University (Spain), University of the Basque Country (Spain), Imperial College London (United Kingdom), University of La Frontera (Chile) with the elaboration of a quality manual for the incorporation of a quality assurance system designed for the institutional disability services for the University of La Frontera, Chile, able to be adapted inside other Chilean universities. Finally, there are some recommendation and proposals for the Chilean higher educational system in order to provide the adequate kind of support services for students with disabilities.

26. Camilo Prats, Architect, Universidad de Chile, Copiapo, Chile, **Planificación y Sustentabilidad en Territorios Extremos: Experiencias del Centro de Proyectos de la Universidad de Chile en Atacama**, cprats@uchilefau.cl

La realidad de las regiones extremas a menudo desafía el aprendizaje e investigación tradicional que se imparte en Chile y el mundo respecto a la Planificación Territorial. Este trabajo considera el Desierto de Atacama como marco general de los territorios extremos y la III Región de Atacama como caso específico para abordar complejidades tanto a nivel de políticas públicas como de la enseñanza de la planificación territorial en Chile. Para ello, se realiza un análisis integrado de dos elementos distintivos del territorio: primero, la concentración pública y privada de la propiedad sobre los recursos naturales (con énfasis en el suelo fiscal rural, agua y subsuelo); y segundo, la incidencia de estos regímenes de propiedad sobre los asentamientos humanos.

A modo de contexto, el 58% de la superficie de la Región de Atacama corresponde a suelo fiscal rural (22% del total del suelo fiscal nacional disponible), lo que contrasta con la enseñanza e investigación académica que se ha centrado mayoritariamente en el análisis y corrección de mercados de suelos regionales de alta concentración privada propios de la zona centro-sur. Sumado a este vacío técnico, la condición desértica es sometida a un concepto de ruralidad agrícola ajeno, traduciéndose en una administración estatal errática por la ausencia de soporte técnico que permita capitalizar esta potencialidad.

Por otro lado, el régimen sobre otros recursos naturales estratégicos como el agua y el subsuelo, muestran el otro extremo de bienes altamente privatizado. El caso del agua en Atacama es uno de los más estudiados a nivel internacional y no puede ser comprendido de manera independiente del status legal del subsuelo que condiciona el uso del resto de los recursos. Sólo considerando el Río Copiapó, en éste se han (sobre)otorgado derechos por 21.000 litros/segundo en un río que es tan sólo capaz de recargar naturalmente 4.000 litros/segundo, derechos entregados gratuitamente y a perpetuidad, con valores que hoy alcanzan los U\$ 70.000 el litro por segundo.

La Región de Atacama es una de las pocas del país que no cuenta con una entidad que imparta carreras asociadas a la planificación territorial como el urbanismo, la geografía y/o la arquitectura entre otras. Este documento muestra parte de los aprendizajes del Centro de Proyectos de la Universidad de Chile en la Región de Atacama desde el 2012, donde ha prestado colaboración a diversas entidades regionales en espacios relevantes como la Política Nacional de Desarrollo Regional, la Política Nacional de Desarrollo Rural, la Política Nacional de Desarrollo Urbano, y más recientemente en la nueva Política Hídrica entre otros instrumentos. Del mismo modo se ha desarrollado investigación en elementos particulares de tenor local asociados a las dinámicas de los recursos naturales y su relación con los asentamientos humanos como los conflictos socio-ambientales o las tomas costeras de segunda vivienda entre otras realidades que plantean desafíos relevantes para una planificación territorial integrada.

27. Felipe Guerrero, Juan Ibáñez, Jorge Ipinza, Metallurgical Engineer, Universidad Tecnica Federico Santa Maria, Valparaiso, Chile, **Copper removal from a molybdenite concentrate by pretreatment and leaching in sodium chloride – sulfuric acid medium.**

felipeguerreroar@gmail.com

Molybdenum is a metal mainly used as alloying element in stainless steel production. After molybdenite concentrate, main source, is obtained by froth flotation, a copper leaching must be carried out to remove the content to less than 0.5 %.

This research studied the purification of a molybdenite concentrate with 2.3 % Cu as chalcopyrite, by a pre-treatment with sodium chloride (dosage 2.3, 30 and 90 kgNaCl/tconc), 50 % of sulfuric acid stoichiometric consumption and 10 % of impregnation moisture, under a repose time of 15 and 30 days. Then the pretreated molybdenite concentrate was leached at pH 1.5, 500 rpm, 48 hours, 25 % of solids, 115 g/L NaCl and temperatures of 20 and 75 °C.

DRX and SEM analysis showed that a higher reaction of chalcopyrite to copper – iron oxides and sodium sulfide was promoted by increasing sodium chloride dosage and repose time in the pre-treatment. Also crystallinity of the products was improved. Gaseous hydrochloric acid formation was established as a key agent for this phenomenon.

Finally, a pre-treatment of molybdenite concentrate with 90 kgNaCl/tconc and repose time of 30 days, followed by a leaching at 75 °C and 115 g/L NaCl, removed the copper content to 0.4 % and negligible molybdenum dissolution. These conditions were required to maintain the redox potential under a non-oxidative model (560 – 620 mV/SHE). The kinetic of copper dissolution from the pretreated molybdenite concentrate was analyzed using the shrinking core model for diffusional overall control, and activation energy of 4.3 kJ/mol was calculated.

28. Cristian Fernandez-Palomo^{1,2}, Carmel Mothersill², Elke Bräuer-Krisch³, Jean Laissue⁴, Colin Seymour², Elisabeth Schültke¹

¹Freiburg University Medical Center, Freiburg, Germany; ²McMaster University, Hamilton, Canada;

³European Synchrotron Radiation Facility (ESRF), Grenoble, France; ⁴Institute of Pathology, University of Bern, Switzerland. **γ -H2AX as a marker for dose deposition in the brain of Wistar rats after Synchrotron Microbeam Radiation**

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Background: The use of synchrotron radiation as an experimental radiotherapy tool has shown high potential in small animal models of malignant brain tumors. Lifespan has increased up to 216% based on the median survival times while limiting functional adverse effects. However, there are still questions that need to be addressed to completely understand the effects of high doses of spatially fractioned synchrotron x-rays in the brain. The purpose of this study was to explore the use of the γ -H2AX antibody as a marker for dose deposition in the brain of rats after synchrotron microbeam radiation therapy (MRT).

Methods: Normal and tumor-bearing Wistar rats were exposed to 35, 70 or 350 Gy of MRT to their right cerebral hemisphere. The brains were extracted either at 4 or 8 hours after irradiation and immediately placed in formalin. Sections of paraffin-embedded tissue were incubated with anti γ -H2AX primary antibody and studied using fluorescence microscopy.

Results: Our results show well-delineated radiation fields and tracks for both micro- and broad-beams demonstrated by the γ -H2AX antibody. While the presence of the C6 glioma did not seem to modulate the formation of γ -H2AX in normal tissue, the irradiation dose and the recovery versus time were the most important factors affecting the development of γ -H2AX foci. Our results suggest that doses of 350 Gy can trigger the release of bystander signals that significantly amplify the DNA damage caused by radiation and that the γ -H2AX biomarker does not only represent DNA damage produced by radiation, but also damage caused by bystander effects.

In conclusion, we suggest that the γ -H2AX foci should be used as biomarker for targeted and non-targeted DNA damage after synchrotron radiation rather than a tool to measure the actual physical doses.

29. Hugo Collao, Msc Ing Civil Industrial, Académico, University of La Serena, Coquimbo, Chile, **La Contribución del Capital Social a la generación de Innovación para la Competitividad como pilar clave para el Desarrollo Sustentable**, collao.hugo@gmail.com

El concepto de Capital Social tuvo sus orígenes en estudios que buscan comprender fenómenos sociales relacionados con la pobreza pero poco a poco múltiples investigadores en el mundo han empezado a analizar los efectos directos e indirectos que puede tener en otras disciplinas, como la economía, en la cual se han propuestos distintos modelos econométricos que permiten comprender de mejor forma su comportamiento.

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Actualmente, en la Universidad de La Serena, existen estrategias que incentivan a los profesionales académicos a publicar artículos basados en diferentes temáticas. No obstante lo anterior, no existe un marco regulatorio que permita medir y comparar los resultados obtenidos. El reconocimiento formal de la contribución del Capital Social al Desarrollo, es el primer paso para profundizar líneas investigativas globales y de contingencia, permitiendo definir métodos de seguimiento y control a los procesos de generación de conocimiento y transferencia tecnológica.

30. Jorge Valenzuela Carreño, Marisol Marfull (McGill), Carla Muñoz Valenzuela (PUCV), María Angélica Oliva (UPLA), Andrea Precht (UST), Ilich Silva Peña (UCSH), Centro de estudios avanzados, CEA, Universidad de Playa Ancha, **Trayectorias motivacionales en la formación pedagógica: motivación y desmotivación en la Formación Inicial Docente (FID) de futuros profesores de Educación Básica** jorge.valenzuela@upla.cl

Actualmente existe un importante número de estudiantes de pedagogía que estando en último año de carrera no desea desempeñarse como profesor. Esta situación tiene múltiples consecuencias y abre múltiples interrogantes. ¿Qué ha pasado en el camino? ¿Cómo llegamos a este estado de (des)motivación por la profesión docente donde sólo 1 de cada 4 estudiantes a punto de egresar quiere ir al aula?. El objetivo principal de este proyecto es analizar las trayectorias motivacionales en los procesos de motivación y desmotivación durante la Formación Inicial Docente de estudiantes de Pedagogía en Educación Básica y avanzar en la comprensión sobre las causas de estos cambios. Para caracterizar el cambio motivacional durante este proceso, se evalúan diversas variables motivacionales relacionadas con relación a las oportunidades de formación durante los estudios universitarios y con la permanencia en la carrera. El diseño del estudio es cuantitativo pero incorpora técnicas cualitativas para poder intentar comprender las razones del cambio motivacional (motivación/desmotivación) de los estudiantes de Pedagogía Básica durante su formación universitaria. Generar conocimiento que ayude a entender las trayectorias motivacionales durante la FID, puede ser un aporte a la política formación de profesores, en el diseño de mecanismos para la identificación y selección de “vocaciones pedagógicas”; así como también para diseñar estrategias de apoyo a la formación pedagógica.

31. Ilich Silva-Peña, Carla Muñoz Valenzuela (PUCV), Jorge Valenzuela Carreño (UPLA), Andrea Precht Gandarillas (UST), Gustavo González (UCSH) Visiting Professor, University of Alberta, Alberta, Canada; Profesor Titular, Universidad Católica Silva Henríquez, Santiago, Chile, **Micropolitical literacy of beginner teachers working in context of poverty**. ilichsp@gmail.com

This project is part of a study on beginning teachers (novices, initiates, or new teachers). The transition from a

teacher education program to working in a school is a critical time, during which the so-called "collision with reality" occurs. Specifically, this approach is based on the perspective of micropolitical literacy, which is a set of implicit and explicit relationships within an organization. We use the concept of "micro-literacy" to understand the process experienced by teachers when facing the reality of working in a school. Beginning teachers experience this process as they learn to "read" the culture of the school and "write" on it. Micropolitical literacy studies have a limited amount of data and preferably use European contexts. In addition to the international literature review, we have considered current studies on beginning teachers in Chile. The main objective is to understand the micropolitical literacy process teachers face when they begin working in contexts involving poverty. We consider the teachers' motivations for teaching and compare those who are highly motivated to teach and those who are not. In addition, we characterize the process in each of the cases to compare both groups. For data collection, we used qualitative research, a longitudinal basis, and interviews supplemented with journal entries. The participants are beginning teachers in poor areas with high and low motivations for teaching in school settings. To identify the participants using quantitative techniques, we measure levels of motivation.

Plenary Speakers



Alejandro Rojas, Ph.D.

Associate Emeritus Professor, University of British Columbia, Faculty of Land and food Systems, Canada

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Dr. Rojas has vast experience in environmental conflicts, resolution adaptation and sustainability, participation in sustainable food security with communities and institutional adaption to climate change. As principal investigator, he inspires leadership, oversees research teams, and coordinates contributions from co-investigators, working with them in the integration of knowledge and dissemination of results. He holds a Ph.D. and Master degree from York University, ON; a Graduate Diploma in Development Studies of University of Geneva and his bachelor degree from University of Chile



George Dei, Ph.D.

Professor, Department of Social Justice Education, University of Toronto, ON, Canada

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Dr. Dei's teaching and research interests are in the areas of anti-racism education, development education, international development, indigenous knowledges and anti-colonial thought. He has a PhD. from University of Toronto, Toronto, Ontario, Department of Anthropology, a M.A. at McMaster University, Hamilton, Ontario, Department of Anthropology, and studied his bachelor degree at University of Ghana, Legon-Accra, Departments of Sociology and Archaeology.



Dr. Jose Etcheverry, Ph.D.

Associate Professor & Co-Chair of the Sustainable Energy Initiative of the Faculty of Environmental Studies, York University, Toronto, ON, Canada

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Dr. Etcheverry's work is focused on developing practical policy solutions to climate change through collaborative efforts; particularly interested in strategies to develop all renewable energy sources to their full potential and in finding new ways to communicate effectively about solutions to climate change and energy problems. Currently as Co-Chair of the Sustainable Energy Initiative of the Faculty of Environmental Studies, he is working on efforts to advance the Global Campaign for 100% Renewable Energy in key cities in Canada and internationally. He has a Ph.D. in Geography from York University, ON; also a Master and Bachelor degrees on Geography & Environmental Studies at University of Toronto.

About REDICEC

REDICEC is a non-profit organization registered under the Canada Non-for-profit Corporations Act #919564-5. REDICEC congregates researchers from the industry and academia from diverse areas of knowledge and at different stages of their professional development: Governmental Officials, University Professors, Graduate and Undergraduate students that conduct studies or work on topics related to Chile and/or Canada. REDICEC seeks to be a bridge to facilitate academic and research collaboration between Chile and Canada, fostering the generation of ties with the academic and scientific fields in Chile and contributing to the debate on public policies related to the development of research and innovation in all areas of knowledge.



REDICEC Directors 2013-2015

About III Colloquium

"Mobilizing knowledge for a sustainable society" is the topic of this year's event. REDICEC's members understand that building a sustainable society is an urgent matter that requires everyone's participation. In this regard, REDICEC seeks to create an opportunity for thought and action in which researchers and professionals from diverse disciplines will be able to learn and voice their opinions about how to achieve sustainability. The challenge is to define the particular contributions that each area of knowledge and innovation can provide to bridge the gaps between the current Chilean socio-cultural and economic goals and structures and the required meaning frames and actions for a sustainable society. This year's colloquium invites those who foster knowledge to discover their role in creating a sustainable society and to implement critical coalitions that seek social and environmental justice in our home country Chile.



I Colloquium REDICEC
Montreal, 2013



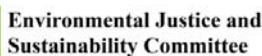
II Colloquium REDICEC
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Toronto, 2015

Acknowledgments

The organizing committee of the Colloquium 2015 would like to express its sincere gratitude to our kind sponsors and donor: Chile Global (Fundación Imagen de Chile); the Ontario Institute of Studies in Education (OISE); the Department of Social Justice and Education (SJE); the Dean's office; the Comparative, International & Development Education Centre (CIDECE); the Environmental Justice and Sustainability Committee; the department of Equity Studies of New College, University of Toronto; and the Dirección para la Comunidad de Chilenos en el Exterior (DICOEX). We would also like to thank the kind support of the Embassy of Chile in Canada, the Consulate of Chile in Toronto, Montreal and Vancouver. Finally, we are deeply grateful of all the speakers, volunteers and attendees that made this colloquium possible.



About the Organizing Committee

We would like to acknowledge the organizing committee of this year's colloquium for volunteering and making this event a success. The committee was formed by:

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