

**Creating Community Consciousness:
Students Expanding Knowledge & Creativity**

**6th Annual University of Regina
Student Research Conference**

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ISBN 978-0-7731-0692-5 (Print)
ISBN 978-0-7731-0693-2 (Online)

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Welcome from the President of the University of Regina



Thomas Friedman, an author and journalist for the New York Times, once wrote: “There is no substitute for face-to-face reporting and research.” Although he may have intended his words to describe the world of journalism, I can’t help but think that they are equally applicable to the world of academic research. Conducting research in your field of study can be incredibly exciting – but in my opinion, it is made all the more so when you have the opportunity to share your work with others. There is no substitute for the experience of conducting your research, drawing your conclusions, presenting your findings, and considering the feedback of others. That’s how you challenge and learn about yourself. Personal and professional growth is what the University of Regina Graduate and Undergraduate Research Conference is all about. Now in its sixth year, the conference provides a fantastic opportunity for you as undergraduate and graduate students to present your work to your peers, your professors, and even members of the public. Regardless of where your career takes you after you graduate, what you learn over the next couple of days will be of great value to you. Chances are, at some point in your life – or perhaps at many points in your life! – you will be required to present your work to others for their consideration. At that time, the lessons you take away from your experience at this conference will serve you well.

Each year, this conference is an important example of how the University of Regina is an academic community – a place where interaction with your colleagues is an enriching part of academic life. By attending your fellow students’ presentations over the next two days, you will be showing your support, but just as importantly, you will be participating in an exchange of ideas by asking questions, providing feedback, and engaging in meaningful discussions about research. You will be part of an academic tradition that stretches back centuries, but at the same time you will be part of a dynamic research community that is exploring new ideas and looking to make a difference for the future. On behalf of the University of Regina, thank you for participating in this year’s conference. As presenters, supporters, organizers and volunteers, all of you should be proud that you are playing an important role in its success. I hope you have a great experience at the conference, and I wish you all the best as you complete your studies.

Sincerely,
Vianne Timmons
President and Vice-Chancellor
University of Regina

Welcome from the Dean of Graduate Studies and Research



Welcome to the *6th Annual Graduate and Undergraduate Student Research Conference* at the University of Regina. Now in its 6th year, this student-initiated research conference serves to illustrate the continuing growth and maturation of the University of Regina as a comprehensive university with a strong focus on new and original research that is undertaken for the public good. The foregoing is wonderfully captured in the conference title “Creating Community Consciousness: Students Expanding Knowledge & Creativity”, which builds on the successes of the previous conferences by setting a focus on the linkages

of university research and the communities it serves. The outflow of achievements in association with this conference will add to the convincing evidence of the past five conferences on the value of an event organized and presented by graduate and senior undergraduate students. This conference is an important forum wherein these student scholars showcase their research accomplishments to all sectors of the campus and to members of the community. It is an ideal opportunity for the student researchers to present their endeavours to various audiences and, importantly, it creates opportunities for deepened connections with fellow students and with specialists in the corresponding fields of study.

Over the course of the two-day conference, there will be opportunities to hear from, or view the research of, more than numerous graduate and undergraduate student presenters. The format includes oral presentations, poster presentations and various demonstrations and exhibits. On Friday, April 1st at 7:30 p.m. in RIC 119, we will be treated to a keynote address by Robert J. Sawyer, Canadian author and winner of several of science-fiction's top awards. As well, Dr. Richard Stallman, founder of the GNU Project (1983) and Free Software Foundation (1985), and also a noted expert on patents and intellectual copyright, will provide a keynote presentation at the conference. On behalf of everyone involved, we look forward to seeing you on campus both days. Come and discover numerous things that make this campus an exciting and stimulating place to be. And, please, if something you see or hear heightens your interest, be sure to engage that student presenter and let the student know that it had an impact.

Sincerely,
Rod A. Kelln, Ph.D.
Acting Vice-President Research and
Dean, Faculty of Graduate Studies and Research

Welcome from the Academic Dean of Luther College



On behalf of the University of Regina, the three Federated Colleges, and with personal greetings from Luther College, welcome to the sixth annual University of Regina Graduate and Undergraduate Research Conference! With your theme of “Creating Community Consciousness: Students Expanding Knowledge & Creativity”, you are building on the long tradition of community-engaged scholarship at the University of Regina. Indeed our motto “As One Who Serves” articulates what has become the face of research at our University. I remember well the first student Research Conference at the U of R, in 2006, and each of those following. The Conference has become an annual event that is anticipated by students, faculty, and the wider community as the opportunity to see in one place the range of excellent and exciting research being done on this campus. As well, you bring in some of the most interesting speakers as part of the Conference, and this year is certainly no exception.

I think there is no way to “teach” research in the abstract sense. Research is all about doing—just trying things. A faculty mentor provides guidance and advice, but in reality the research effort is one of working side by side. Together we learn more than any of us can learn on our own. A conference such as this is a manifestation of that collaboration—we are all learning through the sharing of the research showcased here over these two days. And your work engages the wider community with the University by giving us the chance to show off our wonderful students and their work. For someone like me, looking ahead to retirement within the next few years, it is with such a sense of pride and gratitude that I survey the work embodied here at this Conference. You are the future of our academic world, and the world is in good hands—in your hands.

Thank you so much to everyone who has made this conference possible: first and foremost, the students who have chosen the University of Regina as the place to study and research. You enrich our lives with your curiosity and creativity, and remind us why we cherish this place. Thank you to those faculty advisors who share their love of research. And thank you especially to the Graduate Students’ Association—your vision and hard work make this conference a reality year after year.

With all best wishes,
Mary Vetter
Academic Dean and Professor of Biology
Luther College at the University of Regina

Welcome from the 2011 GSA Student Conference Chair



On behalf of the University of Regina Graduate Students' Association executive I would like to welcome you to the sixth annual Student Research Conference, titled Creating Community Consciousness: Students Expanding Knowledge & Creativity.

The aim of the conference has remained the same as in previous years ~ to provide a platform for students to share their academic knowledge and creative works with the academic and local community. In helping organize this annual event I have had the unique perspective of witnessing first-hand the excitement of students in all disciplines ~ eager to come together and share their knowledge and creative works. It truly is something great.

I wish to thank the university community and all of the sponsors for supporting this year's conference. I also wish to thank the many volunteers who have helped in organizing the event. I specifically wish to thank Richard Dosselmann, Elizabeth Starks, and Bahman Ahmadi for their ongoing help and support. I also wish to thank all of the members of the GSA executive: Adam Belton, Jane Rose, Emenike Ezechikwelu, Adewale Babatunde Aderoju, and Dorothea Wojtowicz, all of whom have helped make this conference possible.

I wish to provide a special thanks to Bill Brown and the executive members of the GNU/Linux Open Source Users of Regina, Saskatchewan (LOSURS). With their participation in this year's event, it is my hope that it is the beginning of more collaborative efforts between university students and local community groups. I also wish to thank our two keynote speakers: Robert J Sawyer and Dr. Richard Stallman for their participation. Both of these speakers are people I admire very much and I am grateful I was given the opportunity to bring them to Regina to speak at this event ~ helping expose their work to the academic and local community.

I hope that you take this opportunity to explore the research and creative works throughout the 2 day event and engage the presenters with questions and comments.

Sincerely,
Timothy Maciag, MSc.
PhD Candidate in Computer Science
2011 Graduate Students' Association Student Conference Chair

2010-2011 Graduate Students' Association Executive



Adam Belton
GSA President



Elizabeth Starks
Vice-President Academic



Jane Rose
Vice-President
Administration &
Finance



Dorothea Wojtowicz
Vice-President
Communications



Emenike Ezechikwelu
Vice-President Social &
Educational Programming



**Adewale Babatunde
Aderoju**
Vice-President Student
Affairs



Bahman Ahmadi
Vice-President
International



Timothy Maciag
Research Conference
Chair



Richard Dosselmann
Webmaster

General Conference Schedule

LC = Luther College, RIC = Research & Innovation Centre

Friday April 1, 2011	
2:30pm – 5:30pm	Registration desk (2 nd floor Luther College)
3:00pm – 3:30pm	Opening Address in LC 100 (1 st floor Luther College) by David Malloy and Mary Vetter
3:45pm – 5:15pm	Session 1.1 in LC 202 Session 1.2 in LC 207 Session 1.3 in LC 208 Session 1.4 in LC 211 Session 1.5 in LC 215
5:15pm – 5:30pm	Break
5:30pm – 7:00pm	Session 2.1 in LC 207 Session 2.2 in LC 208 Session 2.3 in LC 211 Session 2.4 in LC 215
7:00pm – 7:30pm	Break
7:30pm – 9:00pm	Keynote by Robert J Sawyer in RIC 119
9:00pm – 10:30pm	Evening social in RIC Atrium (outside RIC 119)

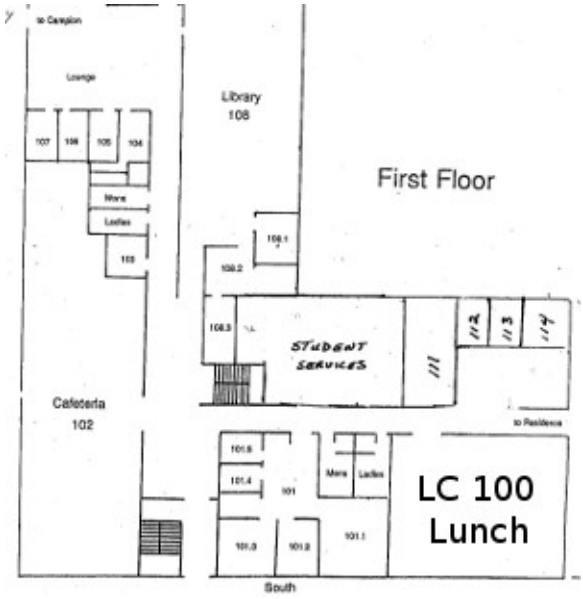
Saturday April 2, 2011	
9:00am – 12:15pm	Registration desk (2 nd floor Luther College)
9:00am – 10:30am	Session 3.1 in LC 202 Session 3.2 in LC 207 Session 3.3 in LC 208 Session 3.4 in LC 211 Session 3.5 in LC 215
10:30am – 10:45am	Break
10:45am – 12:15pm	Session 4.1 in LC 202 Session 4.2 in LC 207 Session 4.3 in LC 208 Session 4.4 in LC 211 Session 4.5 in LC 215

12:15pm – 1:30pm	Lunch in LC 100 (1 st floor Luther College)
1:30pm – 2:00pm* (*3:30pm)	Poster/Exhibit display (*Posters/exhibits will remain on display until 3:30pm)
2:00pm – 3:30pm	Session 5.1 in LC 202 Session 5.2 in LC 207 Session 5.3 in LC 208 Session 5.4 in LC 211 Session 5.5 in LC 215
3:30pm – 4:00pm	Break
4:00pm – 6:00pm	Keynote by Dr. Richard Stallman in RIC 119
6:00pm – 6:30pm	Break
6:30pm – 9:00pm	Conference banquet at 10 Research Dr. (The Terrace)

Map of Campus (Parking and conference locations)



Map of Luther College ~ 1st Floor, Posters & Exhibits



Map of Luther College ~ 2nd Floor, Oral Presentations



Keynote by Robert J. Sawyer, April 1, 2011

Award Winning Canadian Science Fiction
Author of Hominids, Mindscan,
the WWW series &
FlashForward (basis for the ABC TV series)

Robert J. Sawyer

April 1, 2011

7:30 p.m.

University of Regina
Research & Innovation Centre (RIC) 119

Admission is Free
Free parking is available in Lot 3m



Consciousness and Emergent Intelligence: What if the Web wakes up?

The past and future of emergent intelligence and consciousness: how the fact that such consciousness spontaneously emerged when our primate brains reached a sufficient level of complexity is an existence proof for the concept of consciousness emergence, and how it may well emerge on new substrates, such as the complexity of the World Wide Web, in the years to come, and why such intelligence, unburdened by the nature-red-in-tooth-and-claw Darwinian engine of natural selection through reproductive competition might be benevolent rather than rapacious ~ in other words, unlike the way biological consciousness turned out to be. Because of this, although the Vinge/Kurzweil notion of a technological singularity might be inevitable, we actually might indeed survive it with our essential individuality, humanity, and dignity intact.

Robert Sawyer Biography:

(Source: <http://sfwriter.com>)

Science fiction writer and futurist Robert J. Sawyer has been interviewed over 250 times on radio, over 250 times on television, and countless times in print. He lives in Mississauga, Ontario, Canada (just outside Toronto). Rob is one of only seven writers in history — and the only Canadian — to win all three of the world's top Science Fiction awards for best novel of the year: the Hugo, the Nebula, and the John W. Campbell Memorial Award.

Keynote by Dr. Richard Stallman, April 2, 2011

Father of the Free Software Movement, the
GNU Project, & Founder of the Free Software
Foundation

Dr. Richard Stallman

April 2, 2011

4:00 p.m.

University of Regina

Research & Innovation Centre (RIC) 119

Admission is Free

Free parking is available in Lot 3m



Copyright vs. Community

Copyright developed in the age of the printing press, and was designed to fit with the system of centralized copying imposed by the printing press. But the copyright system does not fit well with computer networks, and only draconian punishments can enforce it.

The global corporations that profit from copyright are lobbying for draconian punishments, and to increase their copyright powers, while suppressing public access to technology. But if we seriously hope to serve the only legitimate purpose of copyright ~ to promote progress, for the benefit of the public ~ then we must make changes in the other direction.

Dr. Richard Stallman Biography:

Richard Stallman launched the development of the GNU operating system (see www.gnu.org) in 1984. GNU is free software: everyone has the freedom to copy it and redistribute it, as well as to make changes either large or small. The GNU/Linux system, basically the GNU operating system with Linux added, is used on tens of millions of computers today. Stallman has received the ACM Grace Hopper Award, a MacArthur Foundation fellowship, the Electronic Frontier Foundation's Pioneer Award, and the the Takeda Award for Social/Economic Betterment, as well as several honorary doctorates.

Detailed Conference Schedule ~ Oral Presentations

Friday April 1, 2011					
3:00pm – 3:30pm	Opening Ceremonies in LC 100				
3:45pm – 5:15pm	Session 1.1 LC 202	Session 1.2 LC 207	Session 1.3 LC 208	Session 1.4 LC 211	Session 1.5 LC 215
3:45pm	Regina Akok, Women's and War in the Southern Sudan: Dinka Women's Stories	Ciara Sebastian, The Devolution of Health Care in the Canadian North	Naomi Beingessner, Visions of Food Sovereign Land Tenure in Saskatchewan	Wei Sun, Gongchen Li & Gordon Huang, Development of Inference Methodology for Supporting Understanding of Composting Processes	Wenliang Li & Garth Huber, Particle Identification Techniques for Nuclear Particle Physics Experiment
4:15pm	Sarah Stubbe, Whose Score is it Anyway? Improvisation in the early 18th Century	Adam T. Mills, Regional Health Authorities: An Effective Policy Instrument to Deliver a Successful Population Health Strategy?	Allen Zak & Saqib Khan, Managing Price Risk on Canadian Farms	Ramy Saadeldin, Development and Application of Meso-scale Soil Test System	Mehrnoosh Tahani, Advanced Photo Sensors for Particle and Medical Physics
4:45pm	Heather Ritenburg, Every "Body" Has a History	Brian Hillier & Lisa Watson, eHealth consumer adoption intent: Using the Theory of Planned Behaviour to examine key consumer evaluators	Michael Oram, Running on Empty: Alberta's pending resource problems	Nicole Fergus, Determination of Carbamate Insecticides, their Degradation Products and Phenylurea Herbicides in Atmospheric Samples in the Prairie Agricultural Region	James Cai & R. Scott Murphy, Photochromic Dithenylethene s: From Sunglasses to the Controlled Release of Drugs
5:15pm – 5:30pm	Break				

Friday April 1, 2011					
5:30pm – 7:00pm		Session 2.1 LC 207	Session 2.2 LC 208	Session 2.3 LC 211	Session 2.4 LC 215
5:30pm		Ashley Roberts, A Grounded Theory Examination of the Experience of Experts Leading and Contributing to Support Groups for Women Suffering from Postpartum Depression	Cara Edge, Tracing Ghosts: The Uncanny Appropriation of History	Gongchen Li & Yumin Chen, An Inexact Programming Model for Regional Energy Systems Planning and GHG-Emission Control	Jasmine Kulbida, Print Quest: A Learning Adventure
6:00pm		Kirsten Gullickson, Heather Hadjistavropoulos, & Shannon Jones, Understanding the Implications of Health Anxiety Following Breast Cancer Diagnosis	Gregory P. Kratzig, Does Training in a Synthetic Environment Work? Emergency Intersection Clearing: Skill Acquisition and Skill Transfer	Abdulaziz Naami, Mohamed Edali, Teerawat Sema, Raphael Idem, & Paitoon Tontiwachwut hikul, Studies of the Performance of CO2 Absorption in New Synthesized Chemical Solvent (DEAB) and MDEA/MEA Mixture	Marian Moise, An approach to face recognition using Bayesian networks
6:30pm		Chantelle Zimmer & Kerri Staples, Motor Performance of Children with Autism Spectrum Disorders	Greta Chan, Insider looking out versus outsider looking in: Perspective effects on the memory of textual information	Aravind V. Rayer & Amr Henni, Molar heat capacities of Chemical Solvents used for the Absorption of Carbon Dioxide	

Friday April 1, 2011	
7:00pm – 7:30pm	Break
7:30pm – 9:00pm	Robert J Sawyer keynote in RIC 119 , Consciousness and Emergent Intelligence: What if the Web wakes up?
9:00pm – 10:30pm	Evening social in the RIC Atrium (outside RIC 119)

Saturday April 2, 2011					
9:00am – 10:30am	Session 3.1 LC 202	Session 3.2 LC 207	Session 3.3 LC 208	Session 3.4 LC 211	Session 3.5 LC 215
9:00am	Leisha Grebinski , Current Constructions: Examining the Representation of the Aboriginal Gangster on CBC Radio	Laura Stewart , "I'd Take Back Jesus": Exploring the guilt of colonial legacies through songwriting	Hu Yue , Twofold-Affecting Model: A Pattern of Cultural Influence on the Development of China	Yumin Chen & Gongchen Li , Integrated Goal Programming for Water Resource Management and Water Pollution Control under Uncertainty	Vijayarparvaty Agasthian , On the solution of a Non-Symmetric Algebraic Riccati equation
9:30am	Ian McWilliams , Playmaking and Placemaking in Early Prince Albert	Adam McInnes , Alternative Rehabilitation Programs for Correctional Facilities	Nicole Strandlund , The March of Remembrance and Hope: Examining Critical Empathy and Social Justice Activism through a Holocaust Genocide Study	Wei Sun, Gongchen Li, & Gordon Huang , Piecewise Linearization-based Inexact Nonlinear Programming for Waste Management	Bahman Ahmadi , On Some Graphs Associated with Permutations
10:00am	Irene Forcheh & Abu Bockarie , Stressors and coping strategies of older adults as caregivers in the era of HIV/AIDS: A case study of Botswana	Petra Vychodilova , Recognition of International Medical Credentials in Canada and the European Union	Lynn Gidluck , Saskatchewan Lotteries: A History of How Amateur Sport Volunteers Secured the Provincial Lottery as a Fundraiser for Sport, Culture and Recreation	Bhabani Panigrahy and D. S. D. Stilling , Bio-Composite Development for Acoustic Barriers	

10:30am – 10:45am	Break				
10:45am – 12:15pm	Session 4.1 LC 202	Session 4.2 LC 207	Session 4.3 LC 208	Session 4.4 LC 211	Session 4.5 LC 215
10:45am	Sebastian Harenberg, Kim D. Dorsch, Erwin Karreman, & Harold A. Riemer, Competition and Cooperation: Challenging the beauty and the beast paradigm	Jonathan Harris & Shanthi Johnson, Physical activity and physical/cognitive function in long-term care residents with dementia: A pilot study	Todd Greenwood, Beautiful Falsehoods: A Look at the Symposium, and the Problem of Diotima	Adam McInnes, Care Farming: a New Approach to Therapy	Bandar Mohammed & Malek Mouhoub, Managing Constraints and Preferences in Interactive Applications
11:15am	Caitlyn Jean McMillan, Repressed Identities	Riddhi Shukla & Shanthi Johnson, Nutritional considerations in preventing falls in long-term care facilities in Saskatchewan	Feyawz Rojan, Privacy, Intimacy and Surveillance	Elizabeth Starks & B. Wissel, Could Humans Cause Prairie Lake Food Webs to Collapse?	Eisa Ayed & Malek Mouhoub, Managing Constraints with Preferences and Uncertainty
11:45am	Heather Ritenburg, Knowing Spaces: Considering the Body in Pedagogical Relationships	Katherine M. McLeod & Shanthi Johnson, Examining Canadians' Food Choices Related To Osteoporosis And Calcium Content	Sam Minevich, Thrice Homeless: The Exile Experience of Arnold Schoenberg	Kara Neudorf, Identifying multidrug resistant efflux pumps in <i>Rhizobium leguminosarum</i>	Bing Zhou, A Comparison Study of Cost-Sensitive Classifier Evaluation
12:15pm – 1:30pm	Lunch in LC 100 (1st floor Luther College)				
1:30pm – 2:00pm* (*3:30pm)	Posters and Exhibits in 2nd floor Luther College hallway outside LC 211 and LC 215 Please see schedule below for detailed listing of poster authors and titles. *The posters/exhibits session is from 1:30pm - 3:30pm				

2:00pm – 3:30pm	Session 5.1 LC 202	Session 5.2 LC 207	Session 5.3 LC 208	Session 5.4 LC 211	Session 5.5 LC 215
2:00pm	Nicole Gates & Randi Surkan, Parents' View of Physical Activity in Elementary Schools	Angela Kosar & Darren Candow, The Effects of Whole-Body Vibration on Muscle Performance and Muscle Recovery	Abayomi Akintola, Hiring process in racially diverse labour markets: does applicant's name matters?	Maggi Pettit & John Stavriniades, Survivorship Capabilities of Environmental and Clinical Pantoea Isolates	Xiaofei Deng, An Incremental Algorithm for Data Mining based on Rough Sets
2:30pm	Oleksandra Bielenka, What makes relationships with teachers caring? Perceptions of youth "at-promise"	Krissy Weisgarber & Darren Candow, Effects of protein supplementation on during resistance-training in young adults	Nirach Suapa, Workplace Learning and Their Outcomes: A Hermeneutic Phenomenological Study of an International Organization in Thailand	Geetanchaly Nadarasah & John Stavriniades, Characterization of Clinical and Environmental Isolates of Pantoea	Jigang Luo & Yiyu Yao, Granular Structure of State Space Search
3:00pm	Rhonda Nelson, Reconstruction of a Learner Self: A Phenomenological Study with Youth and Young Adults Post-Incarceration	Simon Schaerz & Angela Kosar, Effect of Red Bull energy drink supplementation on exercise performance in a hypoxic environment	Gregory Kevin Procknow, An Inquiry into Genocidal Training Curriculums: Khmer Rouge, Arkan's Tiger's, and Hitler Youth	Morgan Kirzinger & John Stavriniades, Raiders of the lost hrc: The search for the elusive Pantoea agglomerans Type III Secretion System	Alison Purdy, Counting Permutations
3:30pm – 4:00pm	Break				
4:00pm – 6:00pm	Dr. Richard Stallman keynote in RIC 119, Copyright vs. Community				
6:00pm – 6:30pm	Break				
6:30pm – 9:00pm	Conference banquet at 10 Research Dr. (The Terrace)				

Detailed Conference Schedule ~ Poster Presentations

<p>Laura E. Gardiner, Ray G. Poulin & Christopher M. Somers, Living on the edge: Habitat selection of two sympatric snake species at the northern periphery of their geographic range</p>	<p>Taysa-Rhea Mise, Personal Expressiveness, Hedonic Enjoyment, Intrinsic Motivation, and Life Satisfaction in University Students</p>	<p>Kyle Anderson, Exploring the Effectiveness of Propaganda and Counter-Propaganda in Contemporary Society</p>	<p>J.A Mertler & K.R Hodder, Monitoring Water Quality of an Urban Waterfowl Sanctuary</p>	<p>Jenni Simon, Health Privacy in Canada: E-government's Effect on Confidential Health Information</p>
<p>Julie Fillmore & Ian Coulson, Eruptive Frequency and Hazard Prediction for the Garibaldi Volcanic Complex, British Columbia</p>	<p>Hollyanne Parkerson, Community Values Scale Validation</p>	<p>Dylan Payne, Transformations: Consciousness Expansion and Addictions Treatment</p>	<p>Jessica Yelland, The Effects of Oral Contraceptives on Emotion Processing</p>	<p>Anne Krahnen & Julia Siemer, The dasymetric method for mapping population</p>
<p>David Mac Quarrie & Patrick Neary, Comparison of seismocardiography to echocardiography for measuring cardiac cycle events</p>	<p>C. Scott Fullmer, The Purple Public Administration of Saskatchewan</p>	<p>Michelle J. N. Teale, R. Nicholas Carleton, Gordon, & J. G. Asmundson, Social Anxiety Disorder Constructs: Beyond Fearing Negative Evaluation</p>	<p>Layla Gould & Laurie Sykes Tottenham, Effects of Testosterone on Emotion Processing in Men</p>	<p>Cory Hamel & Don Sharpe, Music Preference and Sensation Seeking: From Alternative to Sensational</p>
<p>Cheghaf Madarati & Tanya Dahms, Ultrastructure and physical properties of Escherichia coli expressing a plant pathogen protein responsible for inter-species infectivity.</p>	<p>Angelica Barth-Burkholder, Single, Female, Female-led families, Mental Health (PTSD, anxiety), Social Network(s), abuse, domestic violence</p>	<p>Special community poster: GNU/Linux Open Source User Group of Regina, Saskatchewan (LOSURS), All about LOSURS</p>		

Oral Presentations

Session 1.1

Author(s):	Regina Akok
Title:	Women's and War in the Southern Sudan: Dinka Women's Stories
Keywords:	Historical reporting; Women; Gender; South Sudan; Dinka; Conflict/War; displacement; refugee; and stories
Abstract:	<p>History is often written by men with little thought to the perspectives of women, particularly in patriarchal societies. Consequently female narratives about war, notions of nationhood, the state, identity and marginalization may be absent from the historical record. The absence of women's voices has meant that there is an inability to define their needs and to provide the appropriate assistance. Silence also denies women a public voice and reduces their ability to contribute to discussion about conflict. This thesis uses the recent conflict in Sudan as a model to illustrate the unique insights of women in historical reportage. Specifically, the oral narrative of South Sudanese women is used to document the perspectives, challenges, and insights of women concerning war and displacement. The oral narrative approach was selected because it provides a significant process to gather knowledge about people's lives and worldview, and is a powerful tool for the reclamations of women's voices in history and literature. By collecting and recording black African women's war and refugee narratives, this research will contribute to increased understanding of issues of war and gender, not only in Sudan but also on an international level. These narratives will bring to light experiences specific to women of the Sudan but also illuminate similar experiences shared by women living and working in conflict zones. Finally, by comparing historical accounts with and without the female perspective, the study will help quantify how male bias in historical reporting may influence our perception of past events and development of society.</p>

Author(s):	Sarah Stubbe
Title:	Whose Score is it Anyway? Improvisation in the early 18th Century
Keywords:	music; baroque; improvisation
Abstract:	Upon hearing the phrase “classical music”, most of us conjure up the image of a sprawling symphony, where many players are united in a single artistic vision – usually that of the composer’s. The score is strictly adhered to; hence, individual expression is somewhat stifled. In the late Baroque era and earlier, however, ensembles were comprised of a mere handful of players, an environment conducive to frequent improvisational flights of fancy. This presentation sheds light on the ways performers deviated from the notes on the page. First, different national styles of improvisation and ornamenting notes will be discussed, before examining how improvisation became increasingly suppressed through the 19th century. Can performers re-capture the spirit of Bach and Handel today? Audio examples of contrasting performances will be used to answer that question.

Author(s):	Michael Oram
Title:	Running on Empty: Alberta's pending resource problems
Keywords:	Water; Policy; Environment; Alberta; Saskatchewan; South Saskatchewan River Basin; Calgary; Urban Development; Land Use Planning; Resource Management; Natural Resources
Abstract:	Southern Alberta is facing a looming resource crisis that surprisingly has nothing to do with oil. The South Saskatchewan River Basin, which is the only river system that does not flow north, is at or has exceeded maximum water allotment for the region. This has created an impending crisis considering that the majority of the Alberta population lives in the southern region, including the sprawling metropolis that is Calgary. Several attempts have been made at solving this looming problem such as the new Alberta Land Use Framework, amendments to the Alberta MGA and various development plans such as the County of Rocky View’s Growth Management Strategy. However, with little to no collaboration between governing bodies and no proposed plans to ease the stresses on the South Saskatchewan River Basin, the problem remains prevalent. What options do policy makers have to solve this problem and

	how can this issue, which is largely ignored at the political level, be put on the public agenda? This presentation will explore these issues and their implications within both Alberta and Saskatchewan.
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Session 1.2

Author(s):	Ciara Sebastian
Title:	The Devolution of Health Care in the Canadian North
Keywords:	devolution; health care; division of powers; federal government; territorial government
Abstract:	<p>The Constitution of Canada sets out the division of powers between the federal and provincial governments. Unlike provinces, territories are created by federal statute and not by the Constitution. They therefore have no inherent power, only that which is transferred to them by the federal government. While jurisdiction over matters relating to health rests with provincial governments, the federal government has jurisdiction over "Indians and lands reserved for Indians." These two sections create complications around who has jurisdiction, and therefore responsibility, over health services with respect to "Indians". The issue of jurisdiction with respect to health is made all the more complicated in the context of the Yukon, Northwest Territories, and Nunavut, where jurisdiction is not guaranteed in the Constitution. In 1954, the federal government assumed responsibility for the delivery of health services to all citizens of the Yukon and Northwest Territories. The federal and territorial governments agreed that this would be preferable over a system where the responsibility for health services would be shared between two levels of government, with the federal government being responsible for "Indians" living in the territories and the territorial governments responsible for everyone else. However in the 1980's, health care began to be gradually transferred back to the territorial governments thus bringing the territories more in line with provinces in terms of the responsibility for health services. This paper will compare and contrast the processes through which responsibility for health care services has been devolved from the federal government to the three territorial governments.</p>

Author(s):	Adam T. Mills
Title:	Regional Health Authorities: An Effective Policy Instrument to Deliver a Successful Population Health Strategy?
Keywords:	amenable mortality; avoidable mortality; health systems; health policy; performance indicators
Abstract:	The regionalization of health care in Saskatchewan was pursued to accomplish two principal goals: to achieve cost savings and economic efficiencies; and to redistribute resources from the traditional illness model to one that focused more broadly on wellness. This presentation focuses on the later. Also known as population health, a wellness approach to health is characterized by health promotion, illness prevention and a consideration of non-medical determinants of health with an end health policy objective to both improve overall health outcomes and reduce health inequalities within a population. As such, this presentation will examine whether regionalization as a policy instrument has been effective in delivering a population health strategy. Drawing on decentralization and critical theory, the presentation will argue that the lack of authority devolved to the regional health organizations; the absence of coordination among government ministries; and the interest of political elites within the health system have all erected significant barriers for regional health organizations to successfully deliver a population health strategy.

Author(s):	Brian Hillier and Lisa Watson
Title:	eHealth consumer adoption intent: Using the Theory of Planned Behavior to examine key consumer evaluators
Keywords:	E-Health, eHealth; telemedicine; healthcare; consumer health information technology; health information technology; technology adoption
Abstract:	Background: eHealth includes technologies such as telemedicine, electronic prescriptions, patient care orders, and support services and has been described as healthcare which is provided, enabled, or enhanced through electronic means. Purpose: Increasing burdens on our healthcare system have led practitioners and researchers to examine such technologies as a means of alleviating these growing burdens. By identifying the

	<p>variables which most drive consumer adoption intent, programs and policies may be developed to address and enhance consumer concerns. Given the high costs of developing eHealth programs, the mitigating measures of understanding the consumer drivers become increasingly important.</p> <p>Methods/Results: Two qualitative studies were conducted examining consumer attitudes towards eHealth on a variety of topics including benefits and risks, social drivers, and self-efficacy. Ongoing evaluation of the results from these behavioral beliefs, normative beliefs, and control beliefs indicate a softening of consumer opinions towards services especially where the veracity and familiarity of the information source is known. Conclusions: A growing prevalence of technology in our society seems to be creating a culture that is gaining greater comfort with using these methods to enable and enhance current service offering in a number of ways. As healthcare is an area of greater potential risk and increased personal information, policy makers, healthcare providers and program developers must remain cautious of trust, accuracy and privacy issues.</p>
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Session 1.3

Author(s):	Naomi Beingessner
Title:	Visions of Food Sovereign Land Tenure in Saskatchewan
Keywords:	food sovereignty; land tenure; agriculture; rural depopulation; farming
Abstract:	<p>A radically different vision of access to and control over land, as the basis of a new food system, is necessary in striving for a socially and ecologically just agriculture. Using data from in-depth interviews of farmers involved in a progressive agrarian organization and in alternative land tenure models, this paper explores visions of radical changes to the dominant agricultural land tenure system in Saskatchewan. Interviewees address primary problems of loss of farmers and rural communities, and accessibility, affordability, and concentration of land, as the result of market forces. They agree on several key points, including the importance of collective action, community, and values of interdependence, diversity, and sustainability, all consonant with food sovereignty's conception of land as</p>

	<p>multidimensional and noncommodifiable. In the struggle against the hegemonic ideology of private ownership of land, a common politicized vocabulary and frame of reference, and greater communication between actors about strategies, practices, and insights, may facilitate action. Food sovereignty can provide these for various groups tackling land tenure problems in Saskatchewan.</p>
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Author(s):	Allen Zak and Saqib Khan
Title:	Managing Price Risk on Canadian Farms
Keywords:	Risk; Commodity prices; volatility; hedging; technical analysis; fundamental analysis
Abstract:	<p>Agriculture commodity prices have experienced increased price volatility in recent years. This can be attributed in part to irregular weather events, increasing demand from developing countries for agricultural and food products and increased interest from non-commercial investment funds (speculators). This volatility in the agricultural commodity prices may result in a potential loss of revenue for the farmers, making their cash flows more risky. Volatility in the currency exchange rate is another contributor to farm price risk as the commodities in international markets are traded in U.S. dollars. If this price volatility is not properly managed it can result in loss of income and ultimately negative cash flows for larger operations. This paper strives to develop a risk management program (RMP) that can be used by producers to mitigate much of the price risk. The RMP provides price forecasts, using a combination of technical analysis that is based on market trends, and fundamental analysis that is based on the laws of demand and supply. Given the forecasted prices, the RMP will then recommend market timing strategies to optimize revenues. This means, rather than selling all the harvest together at one time, the producers would spread out the sale over different periods. The RMP forecasted trends would dictate what portion of the harvest would be sold in each period. The RMP further recommends hedging (risk reduction) strategies using futures and option contracts that are traded on commodity exchanges.</p>

Author(s):	Gregory P. Kratzig
Title:	Does Training in a Synthetic Environment Work? Emergency Intersection Clearing: Skill Acquisition and Skill Transfer
Keywords:	Synthetic Environment; Simulator Training; Skill Acquisition; Skill Transfer
Abstract:	<p>Each year, throughout North America, hundreds of people die in collisions that are a direct result of an emergency responder driving to a call. Finding ways to decrease this has become increasingly important, and one of these ways may be using simulator technology. While simulators have been used with great success in the areas of pilot and medical training, research using driving simulators in a law enforcement environment is sparse. This paper will provide evidence that will begin to fill the research gaps, by providing empirical evidence that systematically investigates how using driving simulators will not only enhance emergency response instruction, but will provide training opportunities that we could not previously teach. We have optimized time spent on training through the use of specific driving scenarios which are designed to provide clear evidence needed to achieve intersection clearing proficiency in a simulator. Although evidence of the transferability of skills from a simulated driving environment to a real world setting has been missing, this paper will report on the results of two years of research conducted with over 1500 police cadets trained at the Royal Canadian Mounted Police Training Academy (RCMP) in Regina Saskatchewan. Using only 7 simulator scenarios, cadets are achieving maximum performance proficiency in a driving simulator. This proficiency has transferred into optimal performance in a real world training situation. This instructional method has reduced classroom sessions, and has permitted cadets to begin training in a police-training vehicle at level that previously first occurred in the field.</p>

Session 1.4

Author(s):	Wei Sun, Gongchen Li, and Gordon Huang
Title:	Development of Inference Methodology for Supporting Understanding of Composting Processes

Keywords:	food waste composting; multivariate analysis
Abstract:	<p>Composting, one of the promising biotechnologies for solid waste management, is a process where organisms convert organic materials into a hygienic and bio-stable humus-like product. Food waste composting has gained increased attention in the past decade. Efficient operations of composting relies on insights of relationships between state variables (e.g. oxygen concentration, ash content, moisture content, and pH) and specific characteristics (e.g. microbial activities, maturity, and stability). Previously, many experimental approaches were developed in analyzing these relationships. However, experiment-based evaluations could hardly help quantify the interactions among multiple composting state variables. In comparison, a model-based analysis could help examine the inherent impacts of various factors on the biological and physiochemical processes and gain an in-depth insight into the related mechanisms. This study attempted to develop inference methodology based on multivariate analysis to describe the nonlinear relationships between the selected state variables and characteristics of interest in food waste composting. The experimental data from bench-scale composting reactors were used to demonstrate the applicability of proposed methods. These methods would help identify the most significant relationships, understand the interactive mechanisms, and infer the hard-to-obtain characteristics in an easier manner, during composting and many other environmental processes.</p>

Author(s):	Ramy Saadeldin
Title:	Development and Application of Meso-scale Soil Test System
Keywords:	civil infrastructures; expansive clays; field conditions; geotechnical investigations
Abstract:	<p>This paper describes the design and fabrication of a new Meso-scale Soil Test System. This equipment is developed to find out innovative solutions for the construction of civil infrastructures on problematic soils, such as expansive clays. Expansive clays occur in the city of Regina and exhibit large amount of volume change due to seasonal climatic changes. The conventional laboratory test methods are not able to capture the field conditions of expansive clays. Development of modified testing</p>

	<p>methods can support geotechnical investigations for expansive soils. Meso-scale Oedometer Test System (MOTS) was fabricated at The University of Regina to take the advantage of testing an undisturbed Meso-scale soil samples (24 inches diameter). The (MOTS) is developed with approximate cost of \$ 285,000 and is funded by Canada Foundation for Innovation (CFI). A high quality undisturbed sample of Regina clay was recently retrieved with the help of the Saskatchewan Ministry of Highways and Infrastructure. The cost of sample acquisition was about \$5,000 including the personnel time, backhoe operation, and transportation. MOTS apparatus will be provided with different sensors to measure the changes in loading, deformations and soil pressures.</p>
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Author(s):	Nicole Fergus
Title:	Determination of Carbamate Insecticides, their Degradation Products and Phenylurea Herbicides in Atmospheric Samples in the Prairie Agricultural Region
Keywords:	liquid chromatography; mass spectrometry; carbamate insecticides; pesticide degradation products; phenylurea herbicides; atmospheric samples
Abstract:	<p>Saskatchewan has the highest provincial pesticide usage in Canada. With the drought expected in Saskatchewan due to climate change, there will be increased crop production pressures and in turn, increased pesticide use. Increased pesticide use impacts human health, the environment, and resource management, among other things. Because of this, it is important to determine the amount of pesticides in the environment. This presentation introduces a new analytical method using liquid chromatography-positive electrospray ionization-tandem mass spectrometry for the analysis of carbamate insecticides, their degradation products, and phenylurea herbicides in atmospheric samples. Atmospheric samples were collected at Bratt's Lake, Saskatchewan located in the prairie agricultural region. At present, there has been little to no atmospheric sampling of these pesticides, especially in western Canada and the objective is to provide the first detection for some of the target pesticides in the atmosphere.</p>

Session 1.5

Author(s):	Wenliang Li and Garth Huber
Title:	Particle Identification Techniques for Nuclear Particle Physics Experiment
Keywords:	physics, particle physics , nuclear
Abstract:	<p>The 12 GeV electron beam upgrade at the Thomas Jefferson National Accelerator Facility (JLab) in Virginia calls for new set of experimental equipment to detect produced particles at higher momenta. In Experimental Hall C of JLab, the Super High Momentum Spectrometer (SHMS) will be installed as part of the upgrade. The essential role of SHMS is to allow scientists to distinguish different particle types and measure their momenta and angles of emission. A part of the SHMS instrumentation known as the Heavy Gas Cherenkov detector used for particle identification is being constructed at the University of Regina. The presentation will briefly present the particle identification techniques used in the SHMS, especially for the Heavy Gas Cherenkov detector.</p>

Author(s):	Mehrnoosh Tahani
Title:	Advanced Photo Sensors for Particle and Medical Physics
Keywords:	Particle Physics; Medical Physics; GlueX; Photo Sensors
Abstract:	<p>In recent years, tremendous effort has been expended on subatomic physics, with the building of new laboratories to better understand the natural laws governing the universe. Jefferson Lab, one of these Laboratories in the United States, contains four experimental halls and aims to explore some of the least understood aspects of our known physical laws. The new experimental hall in Jefferson Lab, Hall D, will house a new experiment called GlueX. A critical component of GlueX is a custom-designed device comprised of layers of optical fibres and lead sheets, which will detect subatomic particles. For this purpose, GlueX will be using a new-generation photo sensor, which also has wide applications in medical physics.</p>

Author(s):	James (Jianxin) Cai and Scott Murphy
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Title:	Photochromic Dithenylethenes: From Sunglasses to the Controlled Release of Drugs
Keywords:	photochromism, diethenylethenes, synthesis
Abstract:	There are several classes of molecules in organic chemistry that exhibit photochromism, one of which is dithienylethenes (DTEs). Photochromism is defined as a light-induced reversible transformation between two isomeric compounds. Upon irradiation with ultraviolet light, DTEs undergo a change in colour from colourless open-ring isomers to blue colored closed-ring isomers. This colour change is due to the extensive change in molecular geometry between their isomeric forms. The new DTE compounds that I have synthesized will be used to develop drug delivery vehicles that will release their drug cargo upon irradiation with light. Our DTEs will act as the ON/OFF switch for this delivery. These vehicles are prepared by incorporating our DTEs into the membrane of biocompatible lipid vesicles or liposomes, which are spherical, self-closed structures, composed of curved lipid bilayers which entrap part of the solvent, in which they freely float, into their interior. I have developed a new approach for the synthesis of symmetrical and asymmetrical DTE compounds. I will discuss these results and the recent synthesis of dimeric DTE molecules that will also be used in light-activated drug delivery therapies.

Session 2.1

Author(s):	Ashley Roberts
Title:	A Grounded Theory Examination of the Experience of Experts Leading and Contributing to Support Groups for Women Suffering from Postpartum Depression
Keywords:	Postpartum Depression; Support Groups; Grounded Theory Methodology
Abstract:	The purpose of this study is to gain an understanding of the subjective experiences and opinions of a group of women who have previously attended or facilitated support groups for women suffering from postpartum depression (PPD). PPD is one of the most commonly diagnosed postnatal complications in women, yet little is known about what the benefits and

	<p>limitations of support groups are, or what the experience of attending a support group entails. This study will be conducted with the use of qualitative research methods, specifically grounded theory. Participants will be recruited using purposive sampling and will be asked to take part in an open-ended qualitative interview that will be tape-recorded and transcribed for analysis. The data derived from each interview will be analysed using a three-stage coding process that will allow for categories and themes to emerge. Finally, a propositional theory describing the experiences and opinions of the participants will be developed. The proposed study will give women who have extensive experience offering support and education to those suffering from postpartum depression a forum to share their knowledge and expertise. The data derived from the study may provide suggestions as to how to encourage more women who are suffering from PPD to use support groups to work towards healing. Furthermore, the information attained in the study could offer recommendations on how to improve the care offered by postpartum support groups.</p>
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Author(s):	Kirsten Gullickson, Heather Hadjistavropoulos, and Shannon Jones
Title:	Understanding the Implications of Health Anxiety Following Breast Cancer Diagnosis
Keywords:	health anxiety; breast cancer; body vigilance; reassurability; quality of life
Abstract:	<p>Health anxiety refers to excessive worry about and preoccupation with ill health and can be triggered when diagnosed with a medical condition. Existing research suggests that elevated health anxiety is associated with behavioural responses such as body vigilance, reassurability from medical personnel, and quality of life; however, the implications of health anxiety have not been studied in a breast cancer sample. Based on previous research and the cognitive-behavioural model of health anxiety, it was hypothesized that health anxiety would positively predict greater body vigilance, decreased reassurability, and lower quality of life even when controlling for other constructs that have been found to be relevant among women with breast cancer, such as depression, general anxiety, cancer-specific anxiety, intolerance of uncertainty, and anxiety</p>

	<p>sensitivity. Presently, 160 Canadian women diagnosed with breast cancer within the past ten years have completed a web-based survey regarding their responses to breast cancer diagnosis. Linear regression analysis will be used to determine the relative importance of health anxiety in predicting body vigilance, reassurability, and quality of life as compared to other psychological constructs. The findings of this study have potential to add to the literature on the applicability of the cognitive-behavioural model of health anxiety to understanding behavioural responses to breast cancer by determining if health anxiety plays a unique role in understanding body vigilance, reassurability, and quality of life. Above all, the knowledge gained from this project will aid clinicians in identifying which constructs are important to assess and treat among women with breast cancer.</p>
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Author(s):	Chantelle Zimmer and Kerri Staples
Title:	Motor Performance of Children with Autism Spectrum Disorders
Keywords:	autism; children; movement skill performance
Abstract:	<p>The purpose of this study is to illustrate that children with ASD experience greater difficulty in fundamental movement skills compared to their peers without ASD. Young children with ASD demonstrate delays in attainment of motor milestones and differences in quality of movement patterns compared to peers without ASD (Staples & Reid, 2010). Over time, these developmental differences result in greater discrepancies of overall motor development and specific movement skills (Baranek, 2002). Fundamental movement skills are the locomotor and object control skills that emerge following the ability to walk. Movement skills consist of goal-directed movements such as throwing a ball, which can be described by the movement pattern used (e.g., over- or under-hand). Mastery of fundamental skills is essential by 10 years of age since they are assumed to be the basis of more advanced, or sport-specific skills (Burton & Miller, 1998).</p> <p>Six children, aged 6 to 9 years, with ASD (based on DSM-IV criteria) performed the Test of Gross Motor Development 2 (TGMD-2), a standardized test that emphasizes components of</p>

	locomotor and object control skills (Ulrich, 2000). Performance on the TGMD-2 was compared against existing normative data for movement skill performance of typically developing children on the basis of raw scores. Implications for future research include the investigation of strengths and weaknesses for locomotor and object control skills in children with ASD, in addition to sex differences in terms of motor performance.
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Session 2.2

Author(s):	Cara Edge
Title:	Tracing Ghosts: The Uncanny Appropriation of History
Keywords:	Southern Ontario Gothic; Margaret Atwood; Confession; Ghosts
Abstract:	<p>Dark deeds and spectral beings have long been part of the Gothic tradition so it is not surprising that they would play a large role in Margaret Atwood’s oeuvre, given her academic training and personal interest in the genre. However, Atwood has taken these traditional characteristics and altered them to help create a unique subgenre of Southern Ontario Gothic. Devious acts in Atwood’s works not only create the spectral beings, but also create a need for confession of them. While <i>Lady Oracle</i> does not begin with an outright admission of guilt on the part of the protagonist, the narration that follows is undoubtedly, as Peter Brooks defines confession: “a verbal act of self-recognition as wrongdoer [which] provides the basis of rehabilitation” (2). While Joan is aware that she is making a verbal confession, she is unaware for what she is confessing. Her confession is not an attempt to acknowledge what she has done, but rather to acknowledge who she is by revisiting the past. While she has indeed lived this story, and thus should find it familiar, her version of the story has been altered by time, creating an uncanny “second self,” or ghost, that resides on the boundary between the familiar and the grotesque. Rather than exorcising the ghost, as in traditional Gothic tales, Atwood’s Southern Ontario Gothic requires that the protagonist confesses her true identity and reintegrates her ghost back into herself in order to cease to be haunted.</p>

Author(s):	Caitlyn Jean McMillan
Title:	Repressed Identities
Keywords:	queer, sexuality, gender, travelling, art, Canada,
Abstract:	<p>Exploring the Canadian Queer identity, Caitlyn will present her studies from a travels to Saskatoon, Saskatchewan, New York, New York, Banff, Alberta, Thunder Bay, Ontario, Halifax, Nova Scotia and Toronto, Ontario exploring sexuality, gender and public space. Connecting her research with visual art, Caitlyn explores how the body and its senses react to different environments through interaction. Caitlyn Jean, MFA fall 2011 uses painting, drawing, interactive sculpture, installation and stop motion video to question heteronormative society and current social views of the body. She will be presenting her experiences in various social spaces as well as images of her artwork to explore her thesis research.</p> <p>This project was also at The National Body Image Conference 2010 at Mt. Vincent University, Halifax, Nova Scotia, Canadian Universities Queer Services Conference 2011, University of Toronto, Toronto, Ontario, and University of Regina Queer Initiative 2011, University of Regina, Regina, Saskatchewan.</p>

Author(s):	Greta Chan
Title:	Insider looking out versus outsider looking in: Perspective effects on the memory of textual information
Keywords:	Discourse processing, mental representation, memory, perspective effect
Abstract:	<p>In discourse processing, it has been demonstrated in numerous studies that readers construct mental pictures of what they are reading. For example, when the sentence “A woman came into the house” is read, the reader will form a mental picture in which the front of the woman is seen and the woman is moving toward the observer. On the contrary, when the sentence “A woman went into the house” is read, the reader will imagine seeing the back of the woman and she is moving away from the observer. In most published studies, researchers compared different mental representations by asking readers to read different sets of sentences. In other words, the researchers manipulated the text to create different mental representations in</p>

	<p>the readers. In the current study, I demonstrated that different mental representations could be created in different readers even when all the readers were reading the same text. The method I used was asking people to recall the same story from the perspectives of different characters (e.g., characters inside a house versus characters outside of the house). For this reason, my experimental manipulation was on the reader, not on the text. I found that this perspective-driven recall had a long-term effect on what people later believed they had read in the original text. Conclusion: Imagination that takes place after reading can distort readers' memory for what they have originally read.</p>
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Session 2.3

Author(s):	Gongchen Li and Yumin Chen
Title:	An Inexact Programming Model for Regional Energy Systems Planning and GHG-Emission Control
Keywords:	Green house gas; mitigation; energy model; uncertainty
Abstract:	<p>A regional energy system consists of diverse forms of energy. Energy-related issues such as utilization of renewable energy and reduction of green house gas (GHG) emission are confronting decision makers. Meanwhile, various uncertainties and dynamics of the energy system are posing difficulties for the energy system planning, especially for those under multiple stages. In this study, an interval multi-stage stochastic programming regional energy systems planning model (IMSP-REM) was developed for supporting regional energy systems management and green house gas control under uncertainty. The IMSP-REM is a hybrid methodology of inexact optimization and multi-stage stochastic programming. It can not only handle uncertainties presented as intervals and probability density functions, but also reflect dynamics of system conditions over multiple planning stages. The developed IMSPREM was applied to a hypothetical regional energy system. The results indicate that the IMSP-REM can effectively reflect issues of GHG reduction and renewable energy utilization within an energy systems planning framework. In addition, the model has advantages in incorporating multiple uncertainties and dynamics within energy management systems.</p>

Author(s):	Abdulaziz Naami, Mohamed Edali, Teerawat Sema, Raphael Idem, and Paitoon Tontiwachwuthikul
Title:	Studies of the Performance of CO ₂ Absorption in New Synthesized Chemical Solvent (DEAB) and MDEA/MEA Mixture
Keywords:	CO ₂ capture, CO ₂ absorption, Packed column, Structured packing, Mass transfer coefficient
Abstract:	A study of the performance of the absorption of CO ₂ in an aqueous solution of a primary alkanolamine was evaluated experimentally in a lab-scale absorber packed with a high efficiency DX structured packing and compared with that in amino alcohol, 4-diethylamino-2-butanol (DEAB), which has been developed as an effective post combustion CO ₂ capture solvent. As well, the performance of CO ₂ absorption in a conventional tertiary amine, methyldiethanolamine (MDEA), and aqueous mixed MDEA/MEA solutions with concentration weight ratios of 27/03, 25/05, and 23/07. The results show that the new synthesized, in-house developed chemical solvent (DEAB) had higher energy efficiency for regeneration, higher absorption capacity and higher cyclic capacity for CO ₂ removal with higher removal efficiency for CO ₂ along the height of the column than MDEA. An empirical correlation for the mass transfer coefficient for the CO ₂ -DEAB system has been developed as a function of the process parameters. The results conducted on the mixed aqueous MDEA/MEA solutions showed higher CO ₂ removal efficiency along the height of the column and excellent overall mass transfer coefficient (KGav) values as the MEA/MDEA ratio increases. However, in terms of both chemical reactivity and cyclic capacity, the concentration ratio of 23/07 MDEA/MEA showed a superior performance.

Author(s):	Aravind V. Rayer and Amr Henni
Title:	Molar heat capacities of Chemical Solvents used for the Absorption of Carbon Dioxide
Keywords:	molar heat capacity, molecular structure, group additivity analysis, molecular connectivity analysis
Abstract:	The molar heat capacity, Cp, is a key thermo physical quantity needed for thermodynamic calculations. It is crucial for

	<p>designing chemical processes as well as for the progress of thermodynamic theories. Knowledge of the heat capacities of liquids as a function of temperature renders some insight into their molecular structure and provides information on intermolecular interactions. Thermochemical and thermodynamic calculations depend heavily on the temperature dependencies of the constant pressure heat capacities of liquid phases. This work reports measured molar heat capacities of 44 pure solvents in the temperature range 303.15 to 393.15 K at atmospheric pressure. The structural similarities in this set of compounds led us to explore the application of group additivity analysis to the reported heat capacity data. Two analyses are reported: the first yields estimates of CH₃, CH₂, CH, NH₂, NH, N and OH group contributions to the molar heat capacities at each investigated temperature; the second analysis utilizes a molecular connectivity approach to obtain a single equation that models the molar heat capacities of the amines over the investigated temperature range. Absolute average deviations for the group additivity analysis was found to be less than 3% and for the molecular connectivity analysis was found to be less than 6%.</p>
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Session 2.4

Author(s):	Jasmine Kulbida
Title:	Print Quest: A Learning Adventure
Keywords:	print quest; edutainment; children; printing; games; web application;
Abstract:	<p>Print Quest is an online educational application for young children that focuses on making printing fun while using new tablet technology that is quickly becoming more accessible and affordable. The primary goal of this research is to determine if children can improve their motor skills with the pen/tablet interface and have it transfer to the pen/paper medium. A secondary goal is to determine if creating a learning experience within a game environment will keep children engaged and motivated to learn on their own as well as to help children that have problems staying focused on school related tasks.</p> <p>Because the final research has not been completed, this</p>

	<p>presentation will focus on discussing the research methods planned and well as showing a demonstration of the application. This study will use a combination of qualitative and quantitative methods to determine if a participant has improved their printing skills throughout the course of the study. Participants will have several sessions using the application and will be required to fill out printing worksheets at the beginning and end of the research period. Additional methods will include several questionnaires with participants, parents and teachers and ranking of the worksheets by the classroom teachers.</p>
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Author(s):	Marian Moise
Title:	An approach to face recognition using Bayesian networks
Keywords:	face recognition; Bayesian networks; facial feature extraction using 2D-DCT; face features localization using ASM; face based authentication
Abstract:	<p>There are many categories of algorithms that tackle face recognition, one of them being based on Bayesian Networks which allow to encode causal relationships between different kind of random variables, thus helping to express correlations between salient facial features(eyebrows, eyes, nose, mouth). Although current algorithms are quite successful on controlled conditions, performance decreases rapidly in case of unconstrained viewing conditions, such as head pose and illumination for instance. In order to diminish the influence of lighting conditions, histogram equalization is used as a preprocessing algorithm. The used algorithm for features extraction from the grayscale image is the two-dimensional Cosine Transform (2D-DCT) and for facial features localization it has been used the Active Shape Models (ASM) which consists in fitting the shape of an object, using a previously learned global shape model, and represented as a set of landmark points on the face. The model of the used Bayesian Network can be explained as follow: the root node on the top represents a face (node F), which is composed of the relationships between eyebrows (node B), eyes (node E), the nose (node N) and the mouth (node M).And finally, these types of facial features generate the corresponding observations.</p> <p>Finally, we compare the proposed system with two popular appearance-based approaches: PCA (Principal Components</p>

	Analysis or Eigenfaces) and LDA (Linear Discriminant Analysis or Fisherfaces).
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Session 3.1

Author(s):	Leisha Grebinski
Title:	Current Constructions: Examining the Representation of the Aboriginal Gangster on CBC Radio
Keywords:	media; representation; Aboriginal; gangster; post-colonial; stereotypes
Abstract:	<p>CBC Radio’s network program The Current produced a special segment on Saskatoon’s changing demographics in September 2010. The spotlight highlighted the city’s rapidly growing Aboriginal population. However, the dominant thread throughout the discussion (re)produced colonial tropes that situated Aboriginal people as disproportionately degenerate, inferior, and criminal (Carter, 1997; Fanon, 1990; Razack, 2002).</p> <p>In this paper I will question The Current’s focus on the “Aboriginal gangster” and its emphasis on the large number of youth being lured into gangs who allegedly have their grip on much of Saskatoon’s inner-city. In addition, I will critically examine racism and the systemic factors that are either overshadowed or completely ignored.</p> <p>Building on a body of literature that problematizes media as a powerful disseminator of knowledge that demonstrates to the public what is “common sense” (Hall,1976; Henry and Tator, 2002; Jiwani,2006), I will ask: What message does The Current sends to the nation regarding Saskatoon’s Aboriginal population? And as a consequence, what image does the Aboriginal population see reflected?</p> <p>When negative representations are produced and (re)produced by mainstream media, the health and well-being of Aboriginal peoples and their communities are adversely affected. As such, this paper will encourage dialogue to challenge and disrupt media discourse that produces and perpetuates the “Aboriginal gangster” stereotype; the latest monolithic depiction of Canada’s</p>

	imagined Indian (Francis, 1992; Robertson, 2011; Valaskakis, 2005).
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Author(s):	Ian McWilliams
Title:	Playmaking and Placemaking in Early Prince Albert
Keywords:	placemaking; drama; theatre; Saskatchewan; Prince Albert; history; community; town hall opera house
Abstract:	<p>To explore the panel themes of Creating Community Consciousness and Expanding Knowledge & Creativity, this paper will focus on the Prince Albert Town Hall Opera House. Topics explored will include placemaking in the Town Hall Opera House and its community during the turn-of-the-last-century in Saskatchewan, an era of booming settlement and community building on a rapid, perhaps even epic, scale. What did the Town Hall Opera House mean to early Prince Albert? In what ways did the building, and performative events held therein, serve as a point of negotiation for this community's sense of place? Many of the performative events in the Town Hall Opera House were produced by local, often amateur, entertainers. They were people of the community making entertainment for their community. Beyond the entertainment value of these events, there was often a fundraising purpose to the performances. The performative events took social capital (volunteers' time and talents) and generated physical capital (funds) as well as more social capital (community good will, social networks, etc.). Local groups often took capital raised by performances to literally build in the community. For example, the Victoria Hospital Ladies' Aid Society used performances and dances as means to raise the seed money for the building of the region's first hospital in 1903. Touring, professional shows also played an important placemaking role in the Prince Albert Town Hall Opera House; for the sake of restraint, however, this paper - an example of an ongoing larger study - will focus on locally produced events in early Prince Albert.</p> <p>The Prince Albert Town Hall Opera House was built 1893. It is the earliest example of such a multi-use structure in Saskatchewan and one of the few 19th century examples of such a structure on the prairies. In 1970, the building was converted into an arts centre, and is still in use today.</p>

Author(s):	Irene Forcheh and Abu Bockarie
Title:	Stressors and coping strategies of older adults as caregivers in the era of HIV/AIDS: A case study of Botswana.
Keywords:	Keywords: Stressors, older adults, coping, HIV/AIDS, Botswana, caregivers, orphans.
Abstract:	<p>Background: The HIV/AIDS pandemic in Botswana is having a devastating effect on families and disintegrating the traditional family structures where older adults are becoming the main caregivers instead of care receivers. The care of children, older people, and the sick in most African Botswana is mainly performed by the youth who also support the family financial. In some cases older adults especially women babysit their grandchildren with the support of adult children and close family members. However, the high HIV infection and AIDS related dead rate among the youth who economically and socially are the productive population has forced older adults into the care of AIDS infected and affected family members. The purpose of this study is to determine the stressors and coping mechanisms of these older caregivers.</p> <p>Methods: The Purposive sampling technique will be used to recruit a homogenous sample of caregivers who are 65 years old and older caring for orphans and AIDS infected persons in Botswana. Face-to-face in-depth interviews will be conducted and questions will be asked on the stressors and coping mechanisms of the participants. To bring out the uniqueness of each case, a detailed description will be provided with a focus on the history of the cases and the sequence of events. A within-case analysis will be done to identify the themes in each case and a cross-case analysis will also be performed by establishing and comparing cases with common themes.</p>

Session 3.2

Author(s):	Laura Stewart
Title:	"I'd Take Back Jesus": Exploring the guilt of colonial legacies through songwriting
Keywords:	lyric inquiry; creative process; representation; songwriting; controversial issues; residential schools
Abstract:	Unwinding at the piano in late November, I hear a gentle phrase

	<p>and think maybe I am writing a Christmas song. What emerges, though, is a very different telling of that story, a longing to untell it, stirred by stories of residential school survivors and cultural appropriation, borne up on a current of forgotten painful story in my own past as adoptive sister to a young boy torn from his family and roots by the A.I.M. program.</p> <p>Drawing upon forms of writing that have previously been seen as the domain of the humanities, lyric inquiry opens space in social science research for expressive, personal explorations that may be particularly suitable to address issues of relationship and ethics. Including a performance of the song “I’d Take Back Jesus,” this presentation will reflect on the creative process and the personal impact of the song, and explore how subsequent reflection has opened spaces for my own learning and further inquiry. Emerging questions focus on possibilities and ethics in representing controversial issues in song, particularly who does the representing, who is listening, and how the dynamic between singer and listener is affected by the relative permanence of a written, recorded, or remembered lyric.</p>
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Author(s):	Adam McInnes
Title:	Alternative Rehabilitation Programs for Correctional Facilities
Keywords:	rehabilitation; prisons; non-traditional therapies
Abstract:	<p>There have been several alternative programs implemented in prisons around the world as ways to rehabilitate inmates, some of which have been borrowed or introduced into school systems. Through the use of appropriate motivation, people can be influenced towards making changes in their lives. Non-traditional programs, such as horticultural therapy, animal husbandry and therapy, meditation, fitness and athletics, education and vocational training, and proper nutrition have all shown to be effective towards rehabilitation, improving mental health, and have several cost benefits.</p> <p>Several great programs are already in operation in Canadian correction centres, but there are a limited number of spaces available in those programs due to large incarcerated populations. To that end, this list of programs may provide insight into new approaches that can be operated within existing</p>

	<p>programs, or as complementary programs that improve the effectiveness of other programs. Some of these programs appear to have been introduced in a limited way to a few women's prisons in Canada and others to male prisons, however these programs have found a more gender neutral application in other prisons around the world with great success.</p>
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Author(s):	Petra Vychodilova
Title:	Recognition of International Medical Credentials in Canada and the European Union
Keywords:	certification requirements; credentials; immigrants; labour mobility; occupational standards; physicians; regulations
Abstract:	<p>Highly skilled immigrants with professional qualifications earned outside Canada often experience barriers to entering the Canadian labour force. Although highly skilled immigrants contribute significantly to Canada's competitiveness and economic growth, provincial governments often lack effective initiatives to recruit and integrate these immigrants into their labour markets. Such concerns have been expressed especially in relation to international medical graduates (IMGs) who, though well trained, have often faced difficulties meeting the formal entry requirements necessary for practicing their profession.</p> <p>This research examines both the occupational standards (skills, knowledge, and abilities required for an occupation established by provincial governments) and certification requirements (official recognition issued by a regulatory organization of a Canadian jurisdiction attesting that an individual is qualified to practice medicine in that particular jurisdiction). Depending on the outcomes of the research, suggestions will be made for both (1) establishment of a more efficient system for the recognition of medical credentials by professional regulatory organizations, and (2) engendering cooperation among provincial governments at the pan-Canadian (national) level.</p> <p>Since the European Union's (EU) regulatory framework for labour mobility ensures not only harmonization of physicians' minimum training requirements, but also the automatic recognition of their qualifications EU-wide, mobility of</p>

	physicians within the EU will be examined as well. An examination of the process establishing that framework may well reveal lessons for Canada.
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Session 3.3

Author(s):	Hu Yue
Title:	Twofold-Affecting Model: A Pattern of Cultural Influence on the Development of China
Keywords:	updating culture, enduring culture, Chinese democratization
Abstract:	My research focuses on China’s development, particularly on the political and social areas. One puzzle of the area is whether China could be democratized after its economic emergence? My answer is: China can be democratized, but perhaps by a Chinese style. The perspective implies the development of China might be different from the western countries’ model not only on the process, but also on the final goals. I create a “twofold-affecting” model to interpret China’s development from a cultural angle. Two types of culture are the key components of my model. They are “updating culture” and “enduring cultures.” The former culture points to cultural elements driven by the socioeconomic development. The “enduring culture,” on the other hand, usually stems from the traditional belief systems and customs, and has been continually reinforced by the society’s internal demand of self-identification and external challenges. My research argues the two types of culture will impact the social development together and simultaneously. But neither of them is more determinative, nor more important. They just like two component forces in mechanics (physics), and the development could be regarded as the resultant of these two components.

Author(s):	Nicole Strandlund
Title:	The March of Remembrance and Hope: Examining Critical Empathy and Social Justice Activism through a Holocaust Genocide Study
Keywords:	Critical empathy; Holocaust education; March of Remembrance and Hope; social justice activism; education; empathy
Abstract:	The March of Remembrance and Hope is a 9 day Holocaust

	<p>genocide study that takes a diverse group of University students from across Canada to Germany and Poland. With survivors, academics, social workers, and each other; the participating students engage in a critical study of the Holocaust. Through my research I am examining the different forms of empathy that are potentially experienced and fostered through this intense experience. I am interested in researching the connections that may exist between participants who display high levels of critical empathy and their involvement in social justice activism. Do highly exhibited levels of critical empathy correlate with social justice actions? Also, if this can be fostered and supported through Holocaust education can a similar educational experience within a localized context be constructed for students? Would such an experience support the deepening of critical empathy and perhaps develop an increased sense of social justice responsibility within these participants?</p>
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Author(s):	Lynn Gidluck
Title:	Saskatchewan Lotteries: A History of How Amateur Sport Volunteers Secured the Provincial Lottery as a Fundraiser for Sport, Culture and Recreation
Keywords:	Lotteries; nonprofit sector; amateur sport; volunteers
Abstract:	<p>Saskatchewan is the only jurisdiction in Canada where the nonprofit sector manages, operates and distributes the proceeds from a state lottery (Azmir 1999 and Canadian Partnership for Responsible Gambling 2010). Since 1974 Saskatchewan Lotteries has been the official fundraiser for amateur, nonprofit sport, culture and recreation. In this system, volunteers determine which groups receive grants and what the funds can be used for. This paper explores why and how the amateur sport sector secured the provincial lottery as a fundraiser for sport, culture and recreation. Historical data, including Hansard, newspaper accounts, annual reports and working papers, and private and public archival sources serve as the starting point for this research. Semi-structured interviews with volunteers, staff, civil servants and political leaders who played a role in the development of the lottery system in Saskatchewan will provide additional, and perhaps alternative, insight to the historical written data. Despite the fact that the lottery system remains the primary fundraising vehicle for such an important part of</p>

	Saskatchewan's voluntary sector, very little is known about the origins of this system.
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Session 3.4

Author(s):	Yumin Chen and Gongchen Li
Title:	Integrated Goal Programming for Water Resource Management and Water Pollution Control under Uncertainty
Keywords:	Water resource management; Goal programming; Uncertainties
Abstract:	<p>In this study, an integrated inexact fuzzy chance-constrained goal programming (IFCCGP) approach is proposed for water resource management and effluent control at regional scale under uncertainty. IFCCGP integrated the interval programming (IP), fuzzy programming (FP), chance-constrained programming (CCP) within the goal programming framework. IFCCGP adopted lexicographic goal programming to deal with the preemptive water resource management priorities of different goals from different sectors. IFCCGP incorporated the CCP in its optimization process to analyze different streamflow scenarios and three typical scenarios were discussed. In this case, IFCCGP was applied to a water resource management system with multiple users, which means multiple water withdrawal sites and effluent discharge sites, within a region. Solutions from IFCCGP can provide water allocation patterns that lexicographically optimize the water resource management goals from different aspects according to their preemptive priorities, minimizing their deviation respectively. The reasonable solutions were generated for decision variables, with the optimal membership functions for the goals which represented the satisfaction levels of the goals. Thus a number of decision alternatives can be generated under different streamflow levels. This approach can provide decision makers the desired alternatives with acceptable satisfaction levels. The proposed approach can deal with practical problems associated with variety of uncertain information.</p>

Author(s):	Wei Sun, Gongchen Li, and Gordon Huang
Title:	Piecewise Linearization-based Inexact Nonlinear Programming for Waste Management
Keywords:	municipal solid waste management; piecewise linearization; inexact nonlinear programming
Abstract:	<p>Effects of economies-of-scale can often bring about nonlinearities in objective functions in a municipal solid waste management planning under uncertainties. Previously, two types of approaches were employed to deal with the scale effects within an inexact optimization framework. One approach was to find efficient algorithms to directly solve the resulting nonlinear objective functions with inexact information. The other type of approach was to approximate nonlinear expressions so that existing algorithms could be applied. In fact, nonlinear systems usually can be approximated more accurately by piecewise linear functions through splitting the state space into piecewise regions and assuming sub-system is linear within each region. Thus, this study aims to develop piecewise linearization-based inexact nonlinear programming and apply it to hypothesis cases of waste allocation planning. Interactive algorithms were designed for solving the proposed methods. The results showed that a more accurate approximation for nonlinearities reflecting effects of economies-of-scale between unit transportation costs and waste flows as well as between unit operation costs and waste treatment amounts were obtained. Most of unit transportation costs or unit operation costs were less than those in conventional programming, which finally contributed to a lower net system costs. This implied that the often ignored effects of economies-of-scale should be considered accurately in the real-world waste management system.</p>

Author(s):	Bhabani Panigrahy and D. S. D. Stilling
Title:	Bio-Composite Development for Acoustic Barriers
Keywords:	Biocomposite, sustainability, mechanical properties, strength, acoustic absorptive property, compression moulding, extrusion moulding, traffic corridor, acoustic barriers.
Abstract:	An innovative biocomposite material utilizing reclaimed material and Saskatchewan crop residue is under development. This material is intended to not only minimize the societal,

	<p>environmental footprint by using sustainable or reclaimed material, but also provide good acoustic and vibration damping and possess semi-structural, construction strength. This value-added product is to be designed into an acoustic barrier in construction areas or along traffic corridors. By varying the combination of natural fibres, such as flax or hemp fibres, with reclaimed polymers, such as polypropylene and rubber, a resilient material with ultimate strengths ranging from 3 to 5 MPa with the capacity to attenuate acoustic noise by 20 dB have been manufactured and evaluated by University of Regina researchers. These properties of good acoustic and vibration damping capacity and high strength essentially are inversely related with increased fiber content. Basically, an increase in fiber content tends to increase the damping capacity yet decrease the strength. Generally, a compromise between these competing properties of strength and damping can be achieved with 30 to 50% fiber concentration of the biocomposite. To improve the structural strength, the manufacturing processes of compression moulding and extrusion combined with compression moulding have been compared with the latter providing improved strength characteristics. Also, fiber processing prior to manufacturing affects strength, density, water absorptive and acoustic absorptive. Fundamental engineering design can be applied to further improved structural integrity and enhance the acoustic damping properties of the material to create a functional acoustic barrier along a traffic corridor.</p>
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Session 3.5

Author(s):	Vijayarparvathy Agasthian
Title:	On the solution of a Non-Symmetric Algebraic Riccati equation
Keywords:	"M- matrices;non negative solution;spectral radius"
Abstract:	<p>In many fields of applied mathematics, engineering and economic sciences there appear matrix Riccati equations. During the last three decades, there was achieved great progress in the mathematical theory of Riccati equations and its applications, with emphasis on Control Systems and differential games. Symmetric Riccati equations play a central role in optimal control, whereas non-symmetric matrix Riccati</p>

	equations show up for instance in the theory of dynamic games. In this talk, we study the minimal non-negative solution of the Non-Symmetric Algebraic Riccati Equation (NARE) which has applications in transport theory and Markov models.
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Author(s):	Bahman Ahmadi
Title:	On Some Graphs Associated with Permutations
Keywords:	graph; permutation; independent set
Abstract:	A permutation on the set $X = \{1, 2, \dots, n\}$ is a bijective function from X to itself. The set of all permutations on X is called the symmetric group and is denoted by $Sym(n)$. An m -cyclic permutation is a permutation which moves m elements of X "cycle-wise" and does not move the other elements. For any $2 \leq m \leq n$ define the graph " $\Gamma(n,m)$ " to be the graph whose vertices are all the elements of $Sym(n)$ and two vertices are adjacent if one of them is equal to the composition of the other one with an m -cyclic permutation. In this talk we study the maximum independent sets of these graphs.

Session 4.1

Author(s):	Sebastian Harenberg, Kim D. Dorsch, Erwin Karreman, and Harold A. Riemer
Title:	Competition and Cooperation: Challenging the beauty and the beast paradigm
Keywords:	constructive competition; cooperation; coaching
Abstract:	Competition and cooperation have been conceptualized by social interdependence theory (Johnson & Johnson, 1989), which functions as the theoretical framework in many contexts (e.g., cooperative learning in education). Most studies show that positive interdependence in cooperative structures leads to more positive outcomes in terms of group productivity and interpersonal relationships. As a result, the focus has been on the structure of cooperation and competition has been viewed as an unproductive condition and a counterpart to cooperative structures. Some scholars (Baumgarten, 1988; Kohn, 1986) even argued that competition should be banned out of our workplaces and schools as it can only lead to destructive outcomes.

	<p>Lately, studies (Fülöp, 2008; Sheridan, & Williams, 2006) have challenged this dichotomous view of competition and cooperation and suggested that both concepts need to be seen as continuums. Stanne, Johnson, and Johnson (1999) found that appropriately structured competition can lead to equally or more favorable outcomes than cooperative settings in motor task execution. Other researchers (Fülöp, 2009; Tjosvold, Johnson, & Johnson, 2003, 2006) have since examined the nature of constructive competition and its applicability in different contexts. This study examines the concept of constructive competition by exploring and structuring the most recent literature from educational and athletic contexts. The dimensions of constructive competition found in various studies will be explained and compared. The implications for educational and athletic contexts will be highlighted and future research directions will be discussed.</p>
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Author(s):	Heather Ritenburg
Title:	Every “Body” Has a History
Keywords:	body; embodiment; dance education; phenomenology, post structuralism
Abstract:	<p>Every ‘body’ has a history, and my body has a history shaped by and through years of dance training. In this presentation I share the story of coming to my doctoral dissertation - research in which I inquire into relationships between the embodied history of dance teachers and their pedagogy. It is the story of the world of classical ballet in which the intentional absencing, alienating, and separating of the body encounters the knowing that is possible in the pedagogical relationship of teacher and student. In that encounter was created a space within which I consider the ideas of Michel Foucault, Judith Butler and Max van Manen among others. In this story are conversations which make visible the ethical and political complexities which characterize schooling and dance education.</p>

Author(s):	Heather Ritenburg
Title:	Knowing Spaces: Considering the Body in Pedagogical Relationships
Keywords:	body; embodiment; dance education; phenomenology, post structuralism

Abstract:	<p>What might a teacher’s bodied history mean in or to their teaching? What might that history mean in their relationships with students? This study is an inquiry into the meaning of the teacher’s body in the pedagogy of mid-career dance education teachers. I consider how teachers experience their bodies; and ask how awareness of the social construction of bodies might resonate with teachers’ lived experiences of their bodies. The research is framed by hermeneutic phenomenology and incorporates a post structural Foucauldian genealogy to situate experience as constituted culturally, historically, and institutionally. Feminist concerns inform methodology and method. Arts-based ways of knowing infuse methodology and method. Throughout the research, I consider the arts as modes of inquiry, analysis, interpretation and expression.</p>
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Session 4.2

Author(s):	Jonathan Harris and Shanthi Johnson
Title:	Physical activity and physical/cognitive function in long-term care residents with dementia: A pilot study
Keywords:	Dementia; physical activity; cognition; physical function
Abstract:	<p>Objectives: Physiologic effects of aging combined with abnormal cognitive decline often lead to decreased functional independence among older adults with dementia. Those who reside in long-term care (LTC) are even more prone to this as they are typically at a more advanced stage of dementia and require more care and assistance with activities of daily living relating to self-care. A small existing body of literature exists suggests that regular physical activity may be effective at maintaining/improving physical and cognitive function in this population (Heyn et al., 2004; Yu et al., 2006).</p> <p>Methods: Fifty-three residents of a Western Canadian long-term care facility were invited to participate, with proxy decision-maker consent. Sixteen residents (6 males, 10 females) consented, met inclusion criteria, and were randomly assigned to either a three-times weekly group walking program, or a control condition involving only weekly group social visits with student volunteers. Functional indicators to be assessed at baseline, six, and twelve weeks were timed up-and-go,</p>

	<p>functional reach, and six-minute walk. Cognitive function was also assessed using the Mini-Mental State Examination. Descriptive data, including age, education level, prescribed medications, and comorbid health conditions was collected through chart audits. Mixed-model ANOVA will be used to assess within and between group differences.</p> <p>Results: Data is currently being analyzed with results to be shared at this conference.</p> <p>Conclusion: Positive results from this study would show the potential of a relatively simple physical activity intervention to improve function, independence and quality of life among elders with dementia residing in long-term care.</p>
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Author(s):	Riddhi Shukla and Shanthi Johnson
Title:	Nutritional considerations in preventing falls in long-term care facilities in Saskatchewan.
Keywords:	nutrition; long-term care; fall prevention
Abstract:	<p>Falls are a major threat to the health of older adults. Compared to older adults who live in the community, residents of long-term care (LTC) facilities fall two to four times more often, and are twice as likely to injure themselves. While various strategies have been implemented to prevent falls and injuries among LTC residents, the role of registered dietitian and the use of nutritional interventions have been over-looked. Adequate nutrient intake, specifically of calcium and vitamin D, has shown to reduce falls and fall related injuries. The current study, in addition to studying fall-intervention strategies, examined the employment of a registered dietitian and the goal of nutrition reviews currently in place in LTC facilities through key informant interviews. Of a possible 118 facilities, telephone interviews of the Director of Care or alternate were completed by 79 LTC facilities in Saskatchewan. While approximately 70% of the LTC facilities had access to a registered dietitian, majority of them were employed as consultants and only 6% of the dietitians being full-time employees of the LTC facilities. Furthermore, majority of the interviewees reported the main goal of the nutrition review was to assess for hydration status, interventions for weight gain or loss, and calcium and vitamin D</p>

	intake, but not to prevent or reduce falls. Educating regional health authorities on the significance of registered dietitians and nutrition in preventing falls can reduce the risk of falls and fall related injuries in LTC.
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Author(s):	Katherine M. McLeod and Shanthi Johnson
Title:	Examining Canadians' Food Choices Related To Osteoporosis And Calcium Content
Keywords:	osteoporosis, nutrition, older adults
Abstract:	In Canada approximately 1 in 4 women and 1 in 8 men over 50 years of age suffer from osteoporosis. Adequate calcium intake plays a fundamental role in the prevention and management of osteoporosis; however, the majority of older adults have intakes far below recommended amounts. This study determined the relationship between choosing foods because of concern about osteoporosis and choosing foods because of calcium content. Analysis was based on weighted data from 16,325 men and women over 50 years of age from the Canadian Community Health Survey (2007-2008). Chi-square and gender-stratified logistic regression analysis determined the association between gender, age, and food choices. Regardless of age group, women were more likely to choose foods because of calcium content and osteoporosis concern than men ($p < 0.01$). Controlling for education, income, marital status, and age, choosing foods because of osteoporosis concern was a significant predictor of choosing food based on calcium content for men (OR = 12.08, 95%CI: 11.94-12.23; $p = <0.01$) and women (OR = 10.99, 95%CI:10.86-11.08; $p = <0.01$). These results have practice implications in that older adults who are aware of osteoporosis are likely to consume calcium and thus prevent or manage the disease.

Session 4.3

Author(s):	Todd Greenwood
Title:	Beautiful Falsehoods: A Look at the Symposium, and the Problem of Diotima
Keywords:	Socrates; Symposium; Diotima; Eros

Abstract:	One question which is often brought up with regards to the Symposium is why Socrates chooses to give his speech through the mouth of Diotima, given that she is the only woman ever to get a prominent speaking role in any of the dialogues? Through a careful examination of the forms as presented in his speech, I show how Socrates would likely not have been espousing accurate concepts of such things as Beauty and love. Instead, it can be seen that he is doing much the same thing as every other individual at the symposium, named providing a eulogy to Eros. Considering the situation in the Symposium it becomes clear what purpose Diotima serves; through her, Socrates is able to give a eulogy and participate in the symposium with the others, and yet still keep his reputation among those present; the speech, and thus the problems therein, are not actually seen to be said by Socrates.
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Author(s):	Feyawz Rojan
Title:	Privacy, Intimacy and Surveillance
Keywords:	privacy; intimacy; surveillance
Abstract:	We all have a sense of privacy and intimacy in this world. It is intuitive that we should be concerned with the protection of our privacy. But what does privacy really mean to creatures such as ourselves who seem dependent on defining their existence through various cultural norms of society and social interactions? And what are the potential implications of intruding on someone's private life? This paper will examine and detail exactly what it means to have privacy in terms of personal development. Explicit to privacy, the importance of personal intimacy will also be analyzed and defined. These definitions will then be expanded by determining their relations to one another. By understanding the relation and importance of privacy and intimacy an account and result of surveillance is given to determine its destructive effects on an individual. Therefore we arrive at a conclusion which supports the protection against surveying private and intimate relationships of individuals in society.

Author(s):	Sam Minevich
Title:	Thrice Homeless: The Exile Experience of Arnold Schoenberg

Keywords:	Schoenberg; Jewish; Music; Holocaust
Abstract:	<p>The composer Arnold Schoenberg can be seen as representative of the secular element of Jewish society in Germany during the pre-Second World War era. Like many of his contemporaries Schoenberg converted to Catholicism in order to advance his career and social prospects. The institution of Nazi policy, specifically the implementation of the 1933 Gesetz zur Wiederherstellung des Berufsbeamtentums (Law for the Restoration of the Professional Civil Service) deprived Schoenberg of his teaching position and forced him to confront the reality of his social situation.</p> <p>The importance of an analysis of Schoenberg’s individual experience lies in its relationship to his later composition and output. Would Schoenberg have been the same composer or person in his later years had the events of the Holocaust not impacted his life? Would Schoenberg have been a Jewish composer or person had the events of the Holocaust not impacted his life? My research focuses on Schoenberg’s resumption of the Jewish faith and the extent to which it impacted his later artistic output.. Through the analysis of his later works as well as examination of Schoenberg’s correspondence, my paper will examine the impact of the exile experience on Arnold Schoenberg.</p>

Session 4.4

Author(s):	Adam McInnes
Title:	Care Farming: a New Approach to Therapy
Keywords:	care farm; social farm; green care; agriculture; therapy; rehabilitation
Abstract:	Care farms are a growing movement around the world. Though still rare here in North America, there is an interest in this type of therapy and rehabilitation. Care farming uses traditional agriculture in an innovative way to generate and promote therapy, rehabilitation, social inclusion, education, and social services. This type of agriculture offers opportunities for disabled or disadvantaged people to participate in growing food, working with animals, and/or learning new job skills while

	<p>being integrated into supportive environment where their capabilities may be valued and enhanced. This includes people with mental health problems, people with disabilities (social, physical, mental, sensory, learning, etc.), addictions rehabilitation services, prisoner rehabilitation services and probation, services for older people, therapeutic activities for children, adults and young people doing community service, and so on. All participants benefit from the physical work, skill learning and development, and a reconnection with food, nature, and their community. They are assisted in becoming productive members of the community.</p>
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Author(s):	Elizabeth Starks and B. Wissel
Title:	Could Humans Cause Prairie Lake Food Webs to Collapse?
Keywords:	lake; food web; predator; trophic collapse; anthropogenic disturbance
Abstract:	<p>Disturbed ecosystems are particularly vulnerable to top predator loss. Prediction of these losses remains challenging and controversial due to the importance of both community interactions and the tolerance of individual species. Here, we combined within-species biological indicators of a top predator (growth, physical condition and genetic diversity of walleye) with metrics of overall food-web structure (diversity and web complexity) to evaluate potential human causes of food-web disruption across 22 prairie lakes. In this study, food webs ranged from simple plankton communities to a complex community of fish, plankton, and invertebrates. Human disturbances included climate variability, land-use and fisheries activity. Both food-web structure and top predator health were primarily influenced by salinity, fertilizer runoff and gamefish stocking. Higher predator levels declined above 3 g/L salinity or 90 ug/L phosphorus and showed physical stress below these levels. Ongoing attempts to maintain desirable fish communities through stocking were sometimes successful but often costly to the ecosystem. Future declines in community complexity are expected with climate change and new farming practices.</p>

Author(s):	Kara Neudorf
Title:	Identifying multidrug resistant efflux pumps in <i>Rhizobium leguminosarum</i> .
Keywords:	Bacteria; multidrug resistance; cell membrane
Abstract:	<p>Bacteria are vulnerable to a variety of toxins, especially those that can pass through their cell membrane. As a result, bacteria have evolved strategies to deal with these harmful substances, such as multidrug resistant (MDR) efflux pumps. <i>Rhizobium leguminosarum</i> is a Gram-negative, soil bacterium that fixes nitrogen through a symbiosis with legume hosts. Rhizobia are intrinsically resistant to many antibiotics and other toxins due to the impermeability of the outer membrane, but MDRs increase this resistance by extruding toxins that can cross the barrier. Rhizobia are closely related to a number of plant and animal pathogens, and therefore, understanding the mechanisms of toxin resistance in rhizobia could have significant implications to environmental, agricultural, and medical microbiology. For this study, I used a transposon mutagenesis approach to generate random mutations and screened 2000 mutants for decreased resistance to the toxins crystal violet, methyl viologen, acriflavine, cobalt, nickel, and cadmium. Of the 2000 mutants screened, four mutants were more sensitive to acriflavine, two were more sensitive to cobalt, one was more sensitive to cadmium and one was more sensitive to nickel, cobalt, and cadmium, when compared to the wild-type strain. MDR pumps are often low specificity transporters that can export a number of different toxins. Further analysis of the transposon mutants using MIC assays demonstrated that some mutants were also more sensitive to other toxins, such as the antibiotic erythromycin. One mutant was identified as containing the transposon insertion in the gene RL0565, a putative solute-binding component of ABC transporter.</p>

Session 4.5

Author(s):	Bandar Mohammed and Malek Mouhoub
Title:	Managing Constraints and Preferences in Interactive Applications
Keywords:	Constraint Programming, Preference Reasoning, Artificial

	Intelligence, E-commerce.
Abstract:	<p>Many internet shoppers find it challenging to choose the perfect aspect or features when buying online a new product such as a desktop computer, camera, laptop, T.V, and so on. Indeed, most online companies do not offer customers the ability to express their choices and preferences when they are interested in buying a new product. In other words, many shopping websites constrain the customers to choose among their alternatives and not necessarily the options that meet their needs and satisfaction. This can be frustrating for buyers as it gives them the impression that their requirements and preferences are not taken into account. In order to address the above issues, we propose an interactive application or system based on constraint programming and preference reasoning. This application or system takes into account the customer requirements and preferences modelled respectively as a set of hard and soft constraints; and returns a list of options corresponding to the best solutions satisfying the hard constraints and maximizing the soft ones.</p>

Author(s):	Eisa Ayed and Malek Mouhoub
Title:	Managing Constraints with Preferences and Uncertainty
Keywords:	Preferences; Soft Constraints; uncertainty
Abstract:	<p>Reasoning about preferences and uncertainty is very relevant in constraint optimization. Indeed, many real-life problems under constraints such as timetabling, scheduling, planning and logistics, involve a certain amount of preferences expressed in a qualitative way, i.e., "I prefer X more than Y" or in a quantitative way, i.e., "I prefer X with preference P" where P is a numerical value. In addition, many of these problems include uncertainty due to missing or imprecise information.</p> <p>We present a study of different methods combining quantitative and qualitative preferences in constraint problems. We also investigated the integration of incomplete knowledge in such problems. Finally, we propose a new model including preferences and uncertainty. The new model uses branch and bound technique for exploring the search space and it has been implemented in Java programming language.</p>

Author(s):	Bing Zhou
Title:	A Comparison Study of Cost-Sensitive Classifier Evaluation
Keywords:	cost-sensitive classification; evaluation;
Abstract:	<p>Performance evaluation plays an important role in the rule induction and classification process. Classic evaluation measures have been extensively studied in the past. In recent years, cost-sensitive classification has received much attention. In a typical classification task, all types of classification errors are treated equally. In many practical cases, not all errors are equal. Therefore, it is critical to build a cost-sensitive classifier to minimize the expected cost. Much work has been done with regard to this issue. On the other hand, cost-sensitive classifier evaluation received less attention, and had only been investigated in specific classification tasks. The goal of my project is to investigate different aspects of this problem. I review 5 existing cost-sensitive evaluation measures and compare their similarities and differences. I find that the cost-sensitive measures can provide consistent evaluation results comparing to classic evaluation measures in most cases. However, when applying different cost values to the evaluation, the differences between the performances of each algorithm change. It is reasonable to conclude that the evaluation results could change dramatically when certain cost values applied. Moreover, by using cost curves to visualize the classification results, performance and performance differences of different classifiers can be easily seen.</p>

Session 5.1

Author(s):	Nicole Gates and Randi Surkan
Title:	Parents' View of Physical Activity in Elementary Schools
Keywords:	Physical Activity; parents' views; school
Abstract:	According to Canada's Report Card on Physical Activity (2010), only 12% of children and youth are meeting the national

	<p>guidelines of 90 minutes of physical activity a day. There are many strategies for improving this percentage. One such strategy is raise parents’ awareness of the amount of physical activity occurring at school. Canada’s Report Card on Physical Activity (2010, p. 34) states “[h]elping parents understand their role as the regulators of family physical activity levels may be the most effective way of increasing the physical activity levels of entire families.” The purpose of this study is to explore parents’ views of physical activity taking place in elementary schools. Eight parents (male and /or female) of children in kindergarten to grade four will be recruited from two elementary schools in Regina. They will participate in a 30-minute interview to discuss physical activity throughout their child’s school day. Data will be coded and categorized and findings will be presented. In doing this research we hope to raise parents’ awareness of their child’s physical activity needs and what is offered in the school system. Furthermore, we hope parents recognize and take responsibility for the lack of physical activity occurring in their child’s day.</p>
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Author(s):	Oleksandra Bielenka
Title:	What makes relationships with teachers caring? Perceptions of youth "at-promise"
Keywords:	caring; youth "at-promise"; teacher-student relationships
Abstract:	<p>The purpose of this study is to examine how youths in alternative educational settings view caring relationships with their teachers. In this study caring relationships with teachers are viewed as a factor contributing to the resilience of youths. Youths themselves are considered to be “at-promise” of academic success rather than “at-risk” of failure (David, 2008; Davis, 1996; Franklin, 2000; Whiting, 2006). Caring relationships between youth “at-promise” and teachers are approached as a system of interrelated components, and viewed through the lens of of the ecological systems theory, as proposed by Bronfenbrenner (1979). The study reveals youths’ perceptions of caring in teacher-student relationships which are grouped into main three themes including activities, principles, and environments. The impact of gender on youths’ perceptions of caring is examined. This qualitative research is rooted in the interpretivist paradigm and utilizes the constructivist grounded</p>

	theory method, as described by Charmaz (2000, 2006). Data collection took the form of semi-structured interviews with eleven youth from an alternative educational setting in the urban area of Saskatchewan. The implications for teachers, schools and teacher education programs are discussed, and possible directions for enhancement of practices are suggested. The avenues for future research are explored.
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Author(s):	Rhonda Nelson
Title:	Reconstruction of a Learner Self: A Phenomenological Study with Youth and Young Adults Post-Incarceration
Keywords:	youth; crime; identity; intervention; at risk;
Abstract:	The presentation will focus on a study aiming to understand the phenomenon of 'self as learner' among older youth and young adults who have not been successful within the regular education system and who have experienced significant at-risk outcomes, with one being incarceration. It will explore the degree to which these individuals perceive themselves as 'learners' differently after they have accessed a portfolio learning process that has been used as part of Prior Learning Assessment and Recognition (PLAR). With an emphasis on the portfolio learning process as a vehicle that has the potential to promote personal change, its use in the study is aside and apart from a formal PLAR intent to foster post-secondary credits. Rather, it is more the experience of the 'how' of personal change that can be facilitated by the portfolio learning process that is of interest. The extent to which individuals can be assisted to become more aware of how they construct knowledge, recognize the sources of their ideas, and become more adept at reconstructing knowledge based on new experiences and reflection - to begin to see themselves not only through the lenses of their prior experiences but through reflection on those experiences - is at the heart of the study. For individuals who have risk factors active in their lives that predispose them to criminal activity, the portfolio learning process is explored for its potential to increase their understanding of how they came to be who they are and give them the freedom to imagine how they might be should they choose some other way of being or doing.

Session 5.2

Author(s):	Angela Kosar and Darren Candow
Title:	The Effects of Whole-Body Vibration on Muscle Performance and Muscle Recovery
Keywords:	delayed onset muscle soreness, resistance-exercise, whole-body vibration
Abstract:	<p>Delayed-onset of muscle soreness (DOMS), which occurs after heavy resistance-exercise, may inhibit muscle performance if adequate muscle recovery is not achieved. Whole-body vibration (WBV) is a new emerging strategy which may decrease muscle soreness following exercise. However, the effects of WBV vs. traditional aerobic exercise prior to and following resistance-exercise are unknown. Purpose: To investigate the effects of WBV prior to and following resistance-exercise on body composition, muscle strength, muscle endurance, and muscle soreness. Methods: Young exercising adults (N=40; 18-25 yrs) will be matched for age and body mass and then be randomly assigned to one of two groups: Whole-body vibration (N=20; 2.5 mins before and after resistance-exercise; 3x/week, 10 weeks; 3 sets of 8-10 eccentric reps/set, 9 exercises) or Aerobic exercise (N=20; 2.5 mins before and after resistance-exercise; 3x/week, 10 weeks; 3 sets of 8-10 eccentric reps/set, 9 exercises). The primary dependent variables to be assessed prior to and following the study will include body composition (muscle, bone, fat; dual energy x-ray absorptiometry), muscle thickness (ultrasound), strength (1-repetition maximum leg press and chest press), and muscle endurance (total number of reps performed over 3 sets at 70% baseline 1-RM for leg press and chest press). Daily muscle soreness (questionnaire) will be assessed prior to each training session.</p>

Author(s):	Krissy Weisgarber and Darren Candow
Title:	Effects of protein supplementation during resistance-training in young adults
Keywords:	timing, muscle, strength, endurance, catabolism
Abstract:	Although the signalling pathways for stimulating muscle protein

	<p>synthesis are increased after resistance-training (RT), this response is delayed in the post-absorptive period. Emerging evidence suggests that protein supplementation immediately before and after RT is important for creating an anabolic environment for muscle growth. However, the effects of protein supplementation during RT are unknown. Purpose: To investigate the effects of protein supplementation during RT on body composition, muscle strength and endurance, muscle protein catabolism, and kidney function. Methods: Using a double-blind, repeated measures design, healthy adults (N=30, 18-30 yrs) will be randomly assigned to one of two groups: Protein (N=15; 0.3g/kg body mass of protein during RT) or Placebo (N=15; 0.3g/kg body mass of maltodextrin and sucrose during RT). Supplements will be mixed with water and 1/27th of the solution will be consumed following each set; 3x/week, 9 weeks; 3 sets of 10, 8 and 6 reps to muscle fatigue, 9 exercises). The primary dependent variables to be assessed prior to and following the study will include: body composition (muscle, bone, fat; dual energy x-ray absorptiometry), muscle thickness (ultrasound), strength (1-repetition maximum leg press and chest press), muscle endurance (total number of reps performed over 3 sets at 70% baseline 1-RM for leg press and chest press), muscle protein catabolism (urinary 3-methylhistidine) and kidney function (urinary microalbumin).</p>
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Author(s):	Simon Schaerz and Angela Kosar
Title:	Effect of Red Bull energy drink supplementation on exercise performance in a hypoxic environment
Keywords:	Hypoxia; time-to-exhaustion; blood lactate; fatigue; caffeine supplementation; ergogenic aids
Abstract:	<p>INTRODUCTION: Caffeinated energy drinks have been immensely popularized over the past two decades. Of late, the ergogenic benefits of caffeinated energy drinks on exercise have been well documented. However, little is known about the ergogenic effect of caffeinated energy drinks, such as Red Bull®, on exercise in oxygen deficient (hypoxic) environments. The purpose of this study was to investigate the effects Red Bull caffeinated energy drink would have on exercise during hypoxia. PARTICIPANTS: Ten physically active females between the ages of 18 and 30 were recruited. A crossover</p>

	<p>design was used to compare effects of Red Bull® (2 mg of caffeine/kg body mass) or placebo on exercise performance outcomes. Subsequent testing sessions took place with seven days in between to allow adequate treatment washout time.</p> <p>RESULTS: There were no significant differences between the Red Bull and placebo for both bench press muscular endurance ($p=0.62$) and time-to-exhaustion ($p=0.76$). The mean values of the total bench press repetitions for the Red Bull and placebo consecutively were 23.6(4.6) and 22.4(6.1). The mean values for the time-to-exhaustion for the Red Bull and placebo consecutively were 7.1(1.8) and 6.9(1.6)</p> <p>CONCLUSION: Red bull energy drink supplementation had no significant effect on cycling time-to-exhaustion; bench press performance; rating of perceived exertion; and, blood lactate concentration under hypoxic conditions. Suggesting that the negative effects of oxygen deficiency (hypoxia), outweigh the ergogenic benefits of Red Bull caffeinated energy drink.</p>
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Session 5.3

Author(s):	Abayomi Akintola
Title:	Hiring process in racially diverse labour markets: does applicant's name matters?
Keywords:	hiring discrimination; call back rate;correspondence testing
Abstract:	<p>The author determined hiring discrimination using two perspectives. First, hiring managers were interviewed to determine implicit discrimination. Second, correspondence testing was conducted to determine if employers discriminate against applicants with foreign names during hiring process. A cross country analysis was done between Sweden and Canada. Almost 6 million foreign born people live in Canada while almost 1 million foreign born people live in Sweden. The results revealed that hiring managers in both countries are well aware of negative impact of hiring discrimination on their organisations. However, correspondence testing revealed contrasting results. 1009 jobs were applied in Sweden while 1326 jobs were applied in Canada. The aggregate results for Sweden show that applicants' with foreign names receive a call back rate of 66.3% while applicants with Swedish names</p>

	received a call back rate of 77.2%. The aggregate results for Canada show that applicants with foreign names received a call back rate of 73.5% while applicants with English names received a call back rate of 74.6%. The results indicate that hiring discrimination against applicants with foreign names is more pronounced in Sweden compared to Canada.
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Author(s):	Nirach Suapa
Title:	Workplace Learning and Their Outcomes: A Hermeneutic Phenomenological Study of an International Organization in Thailand
Keywords:	Workplace learning, hermeneutic phenomenology, human resource development, organizational learning
Abstract:	<p>The study sought to discover participants' definition of success and factors that they associated with the success and failure of workplace learning programs in an international organization in Thailand. The findings were used as the basis to offer suggestions for best practices in the workplace learning programs. The study employed hermeneutic phenomenology as the research methodology and used a random purposive sampling strategy to recruit 24 samples from three groups of employees; administrator and manager, white collar, and blue collar. Data collection methods were interviews, review of relevant document, and field notes.</p> <p>Participants' definition of success fell into three categories (1) the reactions of stakeholders to the programs, and the extent to which the programs accomplished their goals and objectives; (2) benefits of the programs to stakeholders, including, employees, organization, and society; and (3) the programs' capability to activate and promote continuous learning and development of employees and the organization. Both external and internal factors were associated with the success or failure of workplace learning programs. The external factors related to instructions that Headquarters supported and mandated, customer requirements, legal position of government agencies, economic crises, the advancement of hard skill, and the limitation of the organization's evaluation practices for soft skill learning. The internal factors related to the organizational characteristics, organizational inputs, and the attributes and characteristics of individual employees. Such external and internal factors either</p>

	enhanced or limited success in the organization's workplace learning programs. Recommendations related to the critical roles and responsibilities of administrators, managers, HRD personnel, and employees in enhancing the success of workplace learning programs.
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Author(s):	Gregory Kevin Procknow
Title:	An Inquiry into Genocidal Training Curricula: Khmer Rouge, Arkan's Tiger's, and Hitler Youth.
Keywords:	Al-Qaeda, Interahamwe, Arkan's Tigers, SS, Hitler Youth, Khmer Rouge
Abstract:	Delving into Genocidal governments of the past, the material covered in this presentation will explore how these Genocidal belligerents had trained their nation's citizenry into killing machines. Paramilitaries are often employed by these government heads to carry out with such precision the systematic slaughtering of innocents, doing so without resembling compunction. Training their recruits through political ideological indoctrination sessions, and subjecting the trainees to a demanding training schedule, these trainees eventually get their chance to enact what they have so long been training for, blood. Training examples will cover the Khmer Rouge, Arkan's Tiger's, and Hitler Youth.

Session 5.4

Author(s):	Maggi Pettit and John Stavrinides
Title:	Survivorship Capabilities of Environmental and Clinical Pantoea Isolates
Keywords:	Pantoea; biofilm; desiccation; antibiotic resistance
Abstract:	Bacteria are found in almost all environments, and have adapted to withstand the conditions within their environment. For human pathogens this is especially important since they have to be able to adapt to a variety of very harsh conditions, inside and outside of their host, in order to survive. The genus Pantoea is a group of Gram negative bacilli that are found in plants, animals and soil, and have been found to be opportunistic pathogens. A study

	<p>of the survivorship capabilities of 97 <i>Pantoea</i> and closely related isolates was conducted, representing 63 environmental and 31 clinical isolates. Desiccation resistance, ability to grow at varying pHs, biofilm formation, and antibiotic resistance were evaluated for all strains to determine the survivorship potential of each strain. Biofilm was shown to be positively correlated with environmental strains, while desiccation resistance was dependant on phylogeny. Acidity survival was positively correlated with desiccation resistance for all strains. Antibiotic resistance was much more prevalent in clinical isolates and did not appear to correlate with biofilm formation or desiccation resistance. Understanding the survivorship abilities of each strain will lead to a better understanding of what allows certain species of this genus to infect humans while others do not.</p>
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Author(s):	Geetanchaly Nadarasah and John Stavrindes
Title:	Characterization of Clinical and Environmental Isolates of <i>Pantoea</i>
Keywords:	<i>Pantoea</i> ; host specificity; MLSA; phylogeny
Abstract:	<p>The genus, <i>Pantoea</i>, belongs to a family of Gram negative bacteria that have been found to colonize many hosts, including humans. <i>Pantoea</i> can be found in the general environment, including plants, soil, ground, and clinical or nosocomial environments. A total of 110 strains representing 29 clinical, 43 environmental and 38 plant isolates of <i>Pantoea</i> were studied via multilocus sequence analysis (MLSA) to determine their phylogenetic relationships. Further analysis investigated the ability of different isolates to colonize various hosts such as <i>Zea mays</i> and <i>Drosophila melanogaster</i>. Clinical, environmental, and plant isolates were found interspersed within the tree, in contrast to what would be expected in relation to their different areas of isolation. Colonization abilities were also discovered to be similar among the different isolates. Clinical isolates were found to colonize maize crops equally and efficiently as plant isolates, and plant and environmental isolates were discovered to colonize the fruit fly effectively as clinical isolates. Close relatedness and equal colonization abilities among clinical, environmental, and plant isolates suggests that they are capable of multi-host colonization. This suggests that plant isolates may not only be harmful to plants but may also be capable of</p>

	colonizing other hosts, including humans.
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Author(s):	Morgan Kirzinger and John Stavrinides
Title:	Raiders of the lost hrc: The search for the elusive Pantoea agglomerans Type III Secretion System
Keywords:	Disease; Type III Secretion System; Genetic Screen; Effector Proteins
Abstract:	<p>Type III Secretion Systems (T3SS) are complex extracellular nanomachines used by Gram-negative bacteria to inject virulence factors directly into their hosts. The T3SS, often referred to as a hrc cluster, is made up of 20 – 27 genes referred to as hypersensitivity response and conserved proteins (hrp/hrc). The T3SS is essential to the pathogenic abilities of these bacteria as it allows for the injection of virulence proteins, or Type III Secretion Effectors (T3SE) into eukaryotic cells. These T3SEs manipulate host defence mechanisms and signal transduction pathways to facilitate pathogenesis.</p> <p>The dual animal-plant pathogen <i>P. agglomerans</i> was recently identified to have both an animal T3SS and a plant T3SS, however initial attempts to determine the structural organization of the system indicated that its organization is unique and unrelated to that of its closest relatives <i>Pantoea stewartii</i> and <i>Erwinia amylovora</i>. Furthermore, only three T3SEs have been isolated and characterized in <i>P. agglomerans</i>.</p> <p>The purpose of this work is to sequence the T3SS in <i>P. agglomerans</i> in order to gain a better understanding of its function in pathogenesis and provide insight into the evolution of the T3SS across plant and animal pathogens. Additionally, a novel cloning vector is currently being constructed which will allow for a high throughput genetic screen to identify novel T3SEs in <i>P. agglomerans</i>.</p> <p>The identification of novel T3SEs and structural organization of the T3SS will provide a better understanding of both the mechanisms of plant pathogenic capabilities of <i>P. agglomerans</i> and the organization of the T3SS and its regulation.</p>

Session 5.5

Author(s):	Xiaofei Deng
Title:	An Incremental Algorithm for Data Mining based on Rough Sets
Keywords:	Data mining; Rough Set Theory; Incremental learning algorithm
Abstract:	<p>In data mining, there are lots of methods about learning interesting rules (knowledge) from a database or an information table. Pawlak's Rough Set Theory (RST), is a useful method for data mining and data analysis. Successful applications in data mining have proved that those learning approaches from the view of rough sets are rather helpful and valuable in obtaining interesting rules. Such approaches, however, assume that training examples recorded in a database will eventually converge to a stable state. That is, the information table is a finite and fixed set of records which share a common set of properties. In contrast to this assumption, the volume of data grows rapidly. For example, in 2006 the eBay's massive oracle database has over 212 million registered users, holding two Petabytes of user Data. The database is running on Teradata with over 20 billion transactions per day. For management and market decision in such a business environment, an efficient rule learning algorithm with the real time processing ability is extraordinarily valuable. In this presentation, we will introduce an incremental RST algorithm based on the assumption that the objects in the information table change while time evolves.</p>

Author(s):	Jigang Luo and Yiyu Yao
Title:	Granular Structure of State Space Search
Keywords:	granular computing, state space search, hierarchical structure
Abstract:	<p>State space search is to find a path from start state to goal state, which is widely used in Artificial Intelligence. A state is a configuration of basic elements of a problem. For example, in chess game every legal chessboard configuration is a state, a state space consists of all the legal chessboard configurations, the start state is the beginning chessboard configuration, the</p>

	<p>goal state is the chessboard configuration that the opponent is checkmated, the search is to find a sequence of chess moves that from start state to goal state. In our research we use granular computing to construct a hierarchical structure of the state space, so that the search in the state space will be fast. Our idea is that a hierarchical structure can speed up search. For example in a supermarket all the commercial items are categorized hierarchically so that clients can easily find target items, if they want to find a Chinese food they can first search in food category, then search in oriental food category, then search in Chinese food category, then they can easily get their item. We categorize all the states in the state space in the same way so that we can quickly find a path from a start state to a goal state.</p>
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Author(s):	Alison Purdy
Title:	Counting Permutations
Keywords:	Permutations, discrete mathematics, extremal set theory
Abstract:	<p>Suppose we have an orange, an apple and a pear. How many different ways can we arrange these three? The answer is six – OAP, APO, PAO, OPA, AOP, POA. These arrangements are called permutations. Now, how large a collection of these arrangements can we have so that any two arrangements have one fruit in the same position? With our three fruit, the answer is two. One example would be OAP and OPA. The answer isn't quite so easy if we start with a larger set of objects. You would probably be surprised at the number of years it took for mathematicians to prove an answer that would apply to any number of objects. It turns out that the best approach is to have one object in the same position in all the arrangements. What happens if any two arrangements must have two objects in the same positions? What about more than two? How large a collection of permutations will meet these constraints? Recently, Ellis, Friedgut and Pilpel arrived at a partial answer to this question. In the research for my Master's thesis at the University of Regina, I used a different approach in an attempt to solve this problem. I will present these two results and discuss the relative strengths of each.</p>

Posters and Exhibits

Author(s):	Laura E. Gardiner, Ray G. Poulin, and Christopher M. Somers
Title:	Living on the edge: Habitat selection of two sympatric snake species at the northern periphery of their geographic range
Keywords:	behavioural ecology; habitat selection; peripheral populations; snakes; radiotelemetry; Saskatchewan
Abstract:	Southwestern Saskatchewan is home to a unique snake community consisting of several species at the northern edge of their geographic range. Animals at the periphery of their geographic range often experience extreme or unique selection pressures which may put these peripheral populations, and thus the entire species, at a greater risk of extinction. Eastern yellow-bellied racers (<i>Coluber constrictor flaviventris</i>) have been identified as a Threatened species in Canada, with their known range confined to two river valleys in southern Saskatchewan. Prairie rattlesnakes (<i>Crotalus viridis</i>), however, are a wide-ranging pit viper abundant in southern Saskatchewan and Alberta. The considerable difference in abundance of these species may be due to the availability of preferred habitat, though the habitat use of these two species has not been well-studied in Canada. Results from this study will provide new information on the habitat use of these species at the northern periphery of their range and contribute to the development of management strategies for these species and for this grassland ecosystem.

Author(s):	Taysa-Rhea Mise
Title:	Personal Expressiveness, Hedonic Enjoyment, Intrinsic Motivation, and Life Satisfaction in University Students
Keywords:	Personal expressiveness; hedonic enjoyment; intrinsic motivation; life satisfaction
Abstract:	The purpose of the current study is to relate intrinsic motivation, personal expressiveness, hedonic enjoyment, and life satisfaction as experienced by university students. Personally expressive activities enhance one's personal growth or

	<p>development. Waterman (2005, 2008) has equated personal expressiveness with intrinsic motivation, a central focus of Deci and Ryan's (1985) Self-Determination Theory. Satisfaction with life, a component of subjective well-being, has been shown to be highly associated with personal expressiveness and much less related to hedonic enjoyment. These variables will be looked at in terms of how they relate to students' academic and social activities. The hypotheses of the current study are: students who attend school to pursue a passion will have stronger levels of personal expressiveness; participants scoring higher on personal expressiveness will spend more time working on homework and attend a greater portion of their classes; most participants will score higher on personal expressiveness and hedonic enjoyment for a chosen activity versus an assigned one; individuals scoring higher in personal expressiveness and hedonic enjoyment will also score higher in intrinsic motivation; and participants who have high scores in both personal expressiveness and hedonic enjoyment will also have higher satisfaction with life. The study will contribute to knowledge on personal expressiveness and will also have an impact on the design of educational programs and courses at the post-secondary level. This study is currently in progress and hypotheses are expected to be confirmed once data collection and analysis is completed.</p>
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Author(s):	Kyle Anderson
Title:	Exploring the Effectiveness of Propaganda and Counter-Propaganda in Contemporary Society
Keywords:	tobacco; propaganda
Abstract:	<p>In this contemporary age of information in a democratic society, we sift through the messages and decide for ourselves which product to buy, which production we go to, the political party we support, etc. This power of independent thought is brought into question by one particular product: cigarettes. It is the only product on the market that when used as per the manufacturer's specifications, will actually harm the user, and the only mention of them in the public media is grossly anti-smoking; yet the act of smoking persists. Some could chalk this up to the fact that they are addictive, but how does one start in this day and age? How do cigarettes, despite a massive image war in the media, still hold themselves to be symbols of power, intellect,</p>

	<p>independence and mystery?</p> <p>My essay about tobacco advertising and its propagandistic properties attempts to explore the functionality of pro and anti smoking ads, and explain why 40 years after the abolition of tobacco advertising that cigarettes can be more commonly associated with a rebellious teen leaning on a brick wall, than a cancer patient.</p> <p>The format is an interactive essay which contains links to many relevant videos at designated times in the essay (which is why I selected "exhibit", as it is the closest to what I believe it to be).</p>
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Author(s):	J.A. Mertler and K.R. Hodder
Title:	Monitoring Water Quality of an Urban Waterfowl Sanctuary
Keywords:	Water quality; waterfowl; nutrient loading
Abstract:	<p>The evaluation of physical parameters of water is crucial to determining the overall health of an aquatic eco-system. This study investigated the impact of a concentrated population of waterfowl on water quality in a controlled system of small, shallow, macrophyte-rich ponds situated in urban parkland in the city of Regina. The ponds are ideal for this assessment, as inflow and outflow are controlled, and proved useful in the assessment of potential human health risks associated with an urban waterfowl sanctuary.</p> <p>Water quality was assessed according to physical parameters, including pH, specific conductance (EC), temperature, and total dissolved solids (TDS). The measurement of these characteristics at the point of inflow was a direct indicator of water quality in the ponds' main water source, a nearby urban lake. Extreme fluctuations in EC, basic-heavy pH, cool temperatures, and variable TDS levels indicated inflow of poor to variable quality. Outflow water quality was very different, and it appeared that waterfowl reduced pH, EC and TDS levels. The results have application in policy, planning, and programming decisions in urban parklands.</p>

Author(s):	Jenni Simon
Title:	Health Privacy in Canada: E-government's Effect on

	Confidential Health Information
Keywords:	E-government; Privacy: Health
Abstract:	<p>In Canada, confidentiality of health information is assumed by patients and citizens alike who routinely provide health information for everything from employment forms to doctor's appointments. This rightful assumption is entrenched by privacy legislation, the Canadian Charter of Rights and Freedoms, and doctor-patient confidentiality derived from the modern version of the Hippocratic Oath. Although professional rules and legislation govern the use and protection of health information, this has not always been the case in practice. Health privacy prior to the use of e-government was a concern, as will be illustrated by an examination of Justice Krever's inquiry into the confidentiality of health information. These privacy concerns such as lack of proper security, and poor employee training, have intensified in the present with the induction and prominent use of e-government to provide goods and services. Likewise, as electronic health records are becoming popularized, the existence and abundance of centralized information could lead to potential abuse. An examination of privacy prior and during e-government was undertaken. Privacy in Ontario, Saskatchewan, Alberta, British Columbia, and Quebec were examined to determine how e-government has had an impact on health privacy in application to electronic health records. Privacy legislation was also examined in each province, which determined the levels of privacy afforded to citizens in each respective province.</p>

Author(s):	Julie Fillmore and Ian Coulson
Title:	Eruptive Frequency and Hazard Prediction for the Garibaldi Volcanic Complex, British Columbia
Keywords:	Garibaldi Volcanic Complex; volcanic hazards; magma recharge; eruptive frequency
Abstract:	<p>The Garibaldi Volcanic Complex is located in south-western British Columbia, Canada and forms a 25 km-wide belt of volcanic centres stretching from Mount Garibaldi, at the head of Howe Sound, north-west for ~140 km to Bridge River. The Complex is constructed on a series of metamorphosed intrusions of quartz diorite and granodiorite. This complex has been active</p>

	<p>from 1.3 Ma to as recent as 6670 years B. P. The purpose of this study is to both characterise and document the volcanic history of the Garibaldi volcanoes and attempt to constrain their eruptive nature and frequency, and thus potential hazards. This work includes: field sampling, petrological investigation of representative samples, and detailed examination and modelling of crystal populations and their patterns of zonation to determine magma-chamber processes. Magma recharge events, a common cause of volcanic eruptions, have been documented in several minerals across both belts through detailed microscopic study. Analysis of these profiles can provide important information on the repose periods of the Garibaldi volcanoes as well as the timescales between recharge and eruption. This data has the potential to significantly improve current eruption forecasting models.</p>
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Author(s):	Hollyanne Parkerson
Title:	Community Values Scale Validation
Keywords:	environmental concern; environmental attitudes; values; temporal concern; risk perception; scale validation
Abstract:	<p>In 2009, the Uranium Development Partnership (UDP) put forth recommendations about how Saskatchewan could better utilize its uranium resources. A qualitative analysis of written stakeholder responses was conducted and four value clusters were revealed (traditional market values, green market values, deep ecology values, and sustainability values; Dolter & Arbuthnott, 2010). Measurement of environmental concern has typically been addressed within the areas of risk perception (e.g., worldview/identity grid; Kahan & Brahma, 2006), values research (e.g., New Environmental Paradigm; Dunlap, Van Liere, Mertig, & Jones, 1990), and temporal concern (e.g., Consideration of Future Consequences; Strathman, Gleicher, Boninger & Edwards, 1994); however, the four values revealed in the stakeholder responses spanned these three directions. This suggests that current measurement instruments may not provide an adequate assessment of all value clusters. The purpose of this study is to assess the reliability and validity of the proposed scale and to assess whether the relationship between the four values and the UDP recommendations generalizes beyond the stakeholders of the public consultation.</p>

Author(s):	Dylan Payne
Title:	Transformations: Consciousness Expansion and Addictions Treatment
Keywords:	addictions; consciousness
Abstract:	<p>This project will explore how consciousness studies can inform and enrich current approaches to the treatment of addictions. Consciousness has historically been neglected in the study of psychology as it is difficult to study using traditional scientific methods. Currently there has been a renewed interest in the study of consciousness and this research project examines how information gleaned from consciousness research can help understand the process of addiction and recovery. Specifically, the project focuses on the utility of framing addiction as a problem of restricted consciousness. In conceptualizing addiction in this manner, treatment is seen as a process of consciousness expansion. This study attempts to examine the process of consciousness expansion and identify those aspects of treatment that promote it. Models of consciousness are discussed as well as the role of spirituality in the development of higher states of consciousness. A comparison is made between Eastern descriptions of consciousness and empirical studies of consciousness from Western psychology. The relationship between the process of consciousness expansion and the development of the Self is explored with particular emphasis on the work of Carl Jung and his views related to addictions and treatment. It is hoped that suggestions for treatments that foster the development of consciousness, as well as an understanding of the value of conceptualizing addiction as a problem of restricted consciousness, will emerge from the study.</p>

Author(s):	Jessica Yelland
Title:	The Effects of Oral Contraceptives on Emotion Processing
Keywords:	oral contraceptives, emotion processing, sex hormones
Abstract:	<p>Several studies have recently suggested that women's recognition of threat emotion facial expressions (fear, anger, and disgust) increases as progesterone levels increase, while some studies suggest that recognition of anger increases as estrogen levels increase. These studies have focused solely on</p>

	<p>endogenous sex hormone effects on emotion processing, and have examined only visual emotion recognition. This study examined whether women's ability to accurately recognize emotion through both visual and auditory means is affected by the use of oral contraceptives, a type of exogenous sex hormone medication. Participants were female first and second year university students using monocyclic oral contraceptives. Participants completed two emotion recognition tasks (one visual, one auditory) and four self-report measures at three different phases of the pill cycle; one inactive pill phase and two active pill phases. The inactive pills do not contain estrogen and progesterone; during the first active pill phase, estrogen and progesterone are present in low concentrations, and during the second active pill phase, estrogen and progesterone are present in higher concentrations. Emotion recognition scores were examined to determine if changes in emotion processing corresponded to oral contraceptive pill phase.</p>
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Author(s):	Anne Krahnen and Julia Siemer
Title:	The dasymetric method for mapping population
Keywords:	cartography; mapping population; dasymetric mapping
Abstract:	<p>This poster introduces basic concepts, methods and ideas of the dasymetric method. Today's society relies upon maps as a common and effective way of communication. Population distribution and density are frequently displayed phenomena. Currently, the choropleth method is most commonly applied to map population. This method displays statistical data as densities for enumeration units and is most appropriate for phenomena that occur equally throughout a region (e.g., tax rates). However, its application to phenomena whose real distribution is not reflected by the boundaries of administrative areas (e.g., population) is inadequate.</p> <p>A less established method avoiding these problems is the dasymetric method. This method is visualizing statistical surfaces displaying phenomena and variables varying continuously over space. Cartographers discovered a relationship between the occurrence of population and additional, so-called ancillary data. Dasymetric mapping is the method used to define this logical relationship between ancillary data and census population data. Irregularities such as peak</p>

	values and local variations are shown on dasymetric maps. The dasymetric method has not been standardized yet. A generally accepted valid relationship between ancillary data and a statistical surface still is to be defined. Thus, research focuses on the definition of methods that precisely redistribute census data to exclusively populated areas and determine their population density.
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Author(s):	David Mac Quarrie and Patrick Neary
Title:	Comparison of seismocardiography to echocardiography for measuring cardiac cycle events
Keywords:	Cardiac performance seismocardiology Echocardiology timing
Abstract:	<p>Background Seismocardiography (SCG) measures timing and force of cardiac contraction. However, limited data is available to confirm its ability to accurately record these events in comparison to echocardiography (Echo). This study compared SCG with Echo to determine whether SCG provided a valid measure of cardiac performance. We hypothesized that the SCG measurements would not be different from Echo. Methods and Results SCG and Echo was performed on 28 (17 females) healthy volunteers (Mean \pm SD; age=39.3\pm13.9 yrs; age range = 12-59 yrs). The SCG was recorded in the supine position. Following SCG collection, Doppler and M-mode Echo measurements were collected. Data analysis was performed on 10 cardiac cycles (SCG's) and 1-3 Echo images. The results showed the % differences between the Echo and SCG for all comparable variables ranged from 0.90% to 11%, with similar coefficient of variation. Independent T-tests ($p < 0.05$) showed no significant differences between the Echo and SCG, respectively, for aortic valve open to acceleration time of systole (71\pm13 vs 76\pm12 msec), mitral valve open to E-wave (111\pm33 vs 110\pm20 msec), E-wave to A-wave (370\pm118 vs 410\pm144 msec), mitral valve open to E-wave (159\pm20 vs 164\pm28 msec), and mitral valve open to mitral valve close (536\pm129 vs 573\pm148 msec). Statistically significant differences were found for aortic valve open to aortic valve close (292\pm18 vs 264\pm20 msec), and isovolumic relaxation time (81\pm15 vs 91\pm8 msec). Conclusion SCG reliably measured cardiac timing when compared to the reference method, suggesting that SCG could be used in applied and clinical research</p>

Author(s):	Michelle J. N. Teale, R. Nicholas Carleton, and Gordon J. G. Asmundson.
Title:	Social Anxiety Disorder Constructs: Beyond Fearing Negative Evaluation
Keywords:	social anxiety disorder; vulnerabilities; anxiety sensitivity; intolerance of uncertainty; fear of evaluation
Abstract:	<p>Social anxiety disorder (SAD) is a severely distressing disorder that interferes with activities of daily living for 7-13% of the population, making it a significant mental health concern (Kessler et al., 2005). Pioneering cognitive models of SAD underscored fear of negative evaluation as a central cognitive construct contributing to the development and maintenance of the disorder (Clark & Wells, 1995). Other cognitive constructs have since been shown as predictive of social anxiety symptoms, including fear of positive evaluation (Weeks, Heimberg, & Rodebaugh, 2008), anxiety sensitivity (Rodriguez, Bruce, Pagano, Spencer, & Keller, 2004), and most recently, intolerance of uncertainty (Carleton, Collimore, & Asmundson, 2010). The current study extends Carleton and colleagues' (2010) work by concurrently examining all of the aforementioned cognitive constructs and assessing those relationships within a clinical sample. Participants meeting diagnostic criteria for SAD are currently being recruited (n=40 currently completed, estimated final total of n=80 expected by early March) to complete measures of social anxiety symptoms and each of the constructs of interest. Analyses to date suggest intolerance of uncertainty ($p < .05$), along with anxiety sensitivity ($p < .05$), and fear of positive evaluation ($p < .05$) account for variance in SAD symptoms comparable to the variance accounted for by the classically hallmark construct, fear of negative evaluation. The results of such investigations provide important directions for clinicians (i.e., targets for cognitive therapies) and researchers (i.e., avenues for building comprehensive predictive models). Comprehensive results, implications, and directions for future research will be discussed.</p>

Author(s):	C. Scott Fullmer
Title:	The Purple Public Administration of Saskatchewan

Keywords:	public administration; public policy; purple zone; Saskatchewan; politics; management
Abstract:	The public service in Saskatchewan has had difficulty defining the relationship with the political masters. It has been a long held principle that the public service should be willing to serve the elected despite ideological differences. The classical Woodrow Wilson model of public administration has been problematic due to a drift in the recognition between responsibilities of administrators and politicians, sometimes called the “grey” or “purple” zone in policy making. This paper argues that the new public management approach which promotes an exchange of contracts between administrators and politicians has lead to a toxic and adversarial relationship between politicians and administrators. A more formal recognition of the “purple” zone in public policy will enable the province to better tune the performance of management in the public sector and will better define the roles of both administrative and political decision-makers.

Author(s):	Layla Gould and Laurie Sykes Tottenham
Title:	Effects of Testosterone on Emotion Processing in Men
Keywords:	testosterone; diurnal fluctuation; emotion recognition
Abstract:	Recent literature suggests that recognition of emotional facial expressions changes during hormone cycles. In women, emotional facial expression recognition accuracy has been found to change as hormone levels vary across the menstrual cycle; however it is not yet known whether men experience transient changes in emotion recognition related to daily hormonal cycles. This study examined whether there are transient changes in facial and prosodic emotion recognition across the day, at times when testosterone is highest and lowest. Participants consisted of males ranging in age from 18-30 years. All participants completed two testing sessions, one in the morning (high testosterone) and one in the afternoon (low testosterone). Participants completed two facial and prosodic emotion processing tasks during each session. In addition, self-report measures of emotional intelligence and empathy were administered to assess whether self-perceived emotional abilities also fluctuate. Scores from the two sessions were compared to determine if diurnal fluctuations in emotion processing abilities occurred.

Author(s):	Cory Hamel and Donald Sharpe
Title:	Music Preference and Sensation Seeking: From Alternative to Sensational
Keywords:	Music Preference; Sensation Seeking; Personality
Abstract:	The field of music preference as it is related to sensation seeking has been studied by many researchers but the field still seems to lack in objective measures. The aim of the proposed study is to compare a self-report measure to an objective measure of music preference from participants and relate that preference to sensation seeking and personality, using the Sensation Seeking Scale Form V and the HEXACO personality inventory. It is anticipated that the music genres of rock and punk will be strongly associated with high scores on the Sensation Seeking Scale and the six personality dimensions of the HEXACO. The findings of this study will add to the research relating music preference both to personality and the sensation seeking construct.

Author(s):	Cheghaf Madarati and Tanya Dahms
Title:	Ultrastructure and physical properties of Escherichia coli expressing a plant pathogen protein responsible for inter-species infectivity.
Keywords:	Atomic Force Microscopy; Bacterial aggregation; biofilm; ucp1 gene
Abstract:	Phytopathogenic bacteria <i>Pantoea stewartii</i> subsp. <i>stewartii</i> (DC 283) has been demonstrated to aggregate in the gut and causes the death of the pea aphid (<i>Acyrtosiphon pisum</i>) by a flocculating behaviour that prevents honey dew secretion. This behaviour has been attributed to the (you cannot pass-1) ucp1 gene that potentially has an outer membrane function. Here we further explore the role of the ucp1 gene transformed into <i>E. coli</i> (pET21B) by atomic force microscopy and the effects of its expression on the ultrastructure and morphology of the <i>E. coli</i> (pET21B) cell surface. Induction of Ucp1 at various levels was correlated with aggregation of <i>E. coli</i> cells up to 95%. EPS material was produced in larger amounts around bacterial cells with higher induction levels of Ucp1. Interestingly, the surface subunits increased almost 10 nm in size when Ucp1 was induced, and stayed constant over different levels of induction.

	These results show that Ucp1 indeed has either a direct or indirect role on the ultrastructure of the E. coli cell wall surface, leading to aggregation behaviour.
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Author(s):	Angelica Barth-Burkholder
Title:	The Nature of Single Female-led Family Homelessness and Mental Health
Keywords:	Single, Female, Female-led families, Mental Health (PTSD, anxiety), Social Network(s), abuse, domestic violence
Abstract:	<p>Chronic homelessness, repeated episodes and/or lengthy durations of homelessness constitute the extreme negative end of the “housing continuum.” The “housing continuum” reflects levels of financial and social attainment or loss in terms of housing. Among the 'hidden' homeless, the number and proportion of single parent female-led families, which constitute the majority of the ‘new homeless’, have quickly grown among the chronically homeless, as opposed to the usually visible ‘old homeless’ – single adult males. Single-parent female-led homeless families follow cyclical patterns due to small or weak social networks and mental health problems related to abusive histories and domestic violence. Female children of homeless families frequently re-experience cyclical or chronic homelessness as a single adult females or family member. The US and UK have recognized crucial demographic variables and correlations between abusive histories, domestic violence, mental health problems and single-parent female-led cyclical and chronic family homelessness. Canada has not. At expense to mental health and social programs, Canada has focused on partially reversing neo-liberal cutbacks to income, employment and housing programs. These are absolutely necessary, but alone only mitigate the related issues of family homelessness. Just as the literature illustrates my research will demonstrate the same is true in Canada using questionnaires, semi-structured interviews and observation. I argue supporting strong and sustainable social networks, comprehensive, collaborated and coordinated mental health and social programs such as “Homes First” are required to overcome the ravishes of family homelessness</p>

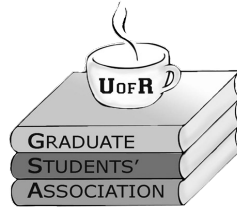
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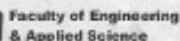
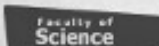


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 & Founder of the Free Software Foundation

Dr. Richard Stallman

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