ninth annual
UNDERGRADUATE RESEARCH CONFERENCE

April 1 + 2, 2016 | Nipissing University, North Bay Campus

Conference Program

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Letter from the Provost and Vice-President, Academic and Research

Hello Students, Visitors and Colleagues:

Welcome to our Undergraduate Research Conference. We are glad you have come.

This conference is important evidence that teaching and research are inter-related and that they can and do occur at different levels. While some people associate research with graduate level education, Nipissing is rich with opportunities for students to be scholars as they move through their baccalaureate degrees.

Our conference is also a vehicle for students from other universities to visit us and share their scholarship. To those who have traveled to participant in the conference as well as family members and parents who are here to support our student-presenters, thank you for joining us.

To our keynote presenter, many thanks for taking that time from your busy life to share your expertise. I am certain that each of us will gain new insights that will have meaning and application in our own pursuits.

Finally, I would like to express appreciation to those who have made the conference possible: the faculty and students who worked to put the conference together, those faculty who volunteered to facilitate the panel presentations, as well as other faculty members who have mentored student-presenters from Nipissing and other universities.

We hope you enjoy the conference.

Harley, d'Entremont, Ph.D.,
Provost and Vice-President, Academic and Research

9th Annual Nipissing University Undergraduate Research Conference
Program at a Glance

Friday April 1, 2016

Time	Program	Location
17:30-21:00	**Registration**	Nipissing Foyer
18:45-19:00	**Opening Remarks**	
	Harley d'Entremont, Vice President, Academic and Research & Provost	
	Tanya Lukin-Linklater, Director, Aboriginal Initiatives	Fedeli Room F210
19:00-20:00	**Keynote Address – Brittany Luby**	Fedeli Room F210
20:00-21:00	**Poster Presentations**	A250 (across the hall from the NU Cafeteria)
20:00-22:00	**Reception and Art Installation**	NU Cafeteria A246

Saturday April 2, 2016

Time	Program		Location
8:30-15:00	**Registration**		NU Cafeteria A246 Hallway
8:45-9:00	**Opening Remarks**		NU Cafeteria A246
	Prof. Nathan Kozuskanich (History)		
9:00-10:30	**Concurrent Panels**		
	#1	**Rhetoric and Reality in the Early American Past**	A224
	#2	**Courage, Justice, and Education:**	A226
		Themes and Ideas from Malala Yousafzai's *I Am Malala*	
	#3	**Digital Pasts and Digital Presents**	A122
10:30-10:45	BREAK		NU Cafeteria A246
10:45-12:15	**Concurrent Panels**		
	#4	**Empire and Aftermath:**	A224
		The United States and Insurgency in South East Asia	
	#5	**Reflecting and Representing Community**	A226
	#6	**The Politics of the Global Community**	A122
	#7	**Social Problems, Mental Disorder, and Gender**	A252
12:15-13:15	**LUNCH**		NU Cafeteria A246
13:15-14:45	**Concurrent Panels**		
	#8	**Sifting Through the Garbage:**	A224
		Unobtrusive Research at its Best and Worst!	
	#9	**State Violence and its Aftermath: Family, Law, and Politics**	A226
	#10	**From Conflict to Consensus? Assessing Ara Norenzayan's *Big Gods***	A122
	#11	**Sex, Sexuality, and Stereotypes**	A252
14:45-15:00	**BREAK**		NU Cafeteria A246
15:00-16:30	**Concurrent Panels**		
	#12	**Inside Nazi Germany: Power and Violence in the Third Reich**	A224
	#13	**Beats, Bikes, and Biometrics**	A226
	#14	**Worlds of Literature**	A252
	#15	**Muscles, Movement, and Kinematics**	A122
16:30-17:00	**Closing Remarks** – April James (CRC, Geography)		NU Cafeteria A246
	Awards for Posters and Papers		

Friday April 1, 2016

17:30-21:00	**Registration**	**Nipissing Foyer**

18:45-19:00	**Opening Remarks** **Harley d'Entremont,** **Vice President, Academic and Research & Provost**	
	Tanya Lukin-Linklater, Director, Aboriginal Initiatives	**Fedeli Room F210**

19:00-20:00	**Keynote Address – Brittany Luby**	**Fedeli Room F210**

Historical Researcher and Research Subject:
The Challenges of Writing Community History from within the Academy

Brittany Luby is a current PhD Candidate in the Department of History at Laurentian University. She is currently working on her Social Sciences and Humanities Research Council of Canada funded dissertation "Nizaabaawe/Drowned: Anishinabek Economies and Activism during the Post-War Hydroelectric Boom, 1950-1975" under the supervision of Dr. Colin Coates and Dr. Carolyn Podruchny. Luby's work can be found in periodicals such as Ontario History, Canadian Journal of Native Studies, Native Studies Review, Feathertale Review, Native Literatures: Generations, and Red Ink Magazine. A talented poet as well, Luby's poetry has appeared in Walk Myself Home.

20:00-21:00	**Poster Presentations**	**A250 (across the hall from the NU Cafeteria)**

Judges: Steven Arnocky (Psychology), Dean Hay (PHED), Steve Cook (Criminology), Carly Dokis (Anthropology), Rick Vanderlee (Business), Tammie McParland (Nursing), James Abbott (Geography)

Presenters:

Graham Albert	*Changes in men's fundamental frequency predicts aggressive behaviour*
Erika Arff	*Barriers to Physical Activity in Adults with Type 1 Diabetes Mellitus*
Tess Butler-Ulrich	*The Effects of Age and Temporal Distortion on the Central Auditory Integration Mechanism*
Tealia Carriere	*Jamaica ILead Trip 2016*
Carl Cipriano	*Can the processing of facial expressions in a binocular suppression task tell us anything about theories of emotion and aging?*
Taylor-Rae Côté	*Intrasexual competition and aggression in young women, 'judging a book by its cover*
Elisha Corbett	*Language Framing in the 2015 Canadian Leaders' Debates*
James Donovan	*Long-term marijuana use and spatial memory performance: Does dope affect dimensional recall?*
James Donovan	*How does long-term marijuana use alter IOWA gambling task decision making?*
Emily Gibson	*Getting Acquainted Online: The Role of Self-Disclosure, Responsiveness and Similarity on Liking*
Markus Hawco	*Observational project: Wine consumption trends*
Tricia Kafka	*Facilitating Access and Equity in Rural Areas*

Kimberly Knobel	*iLEAD Business Experience Certificate Awareness Campaign*
Nicholas Landry	*Deep Learning and The Brain: Towards More Biologically Inspired Network Architecure*
Sydney Lamorea	*Effects of ethanol on the regeneration speed and morphology of planarians: A model for alcohol related neurodevelopmental disorders*
Gillian McCaskill Taylor McCharles and Kristina Haghoo	*Redefining the Marketing Strategy of A Not-for Profit Organization Revised methodology for SYNORF-1 antibody staining in planarians*
Meghan McLaren	*Effects of sexually explicit and non-sexually explicit videos on salivary testosterone concentrations and dehumanization*
Nathan Olmstead	*The Effects of Competition, Victory, and Exercise on Testosterone Concentrations*
Triana Ortiz	*Psychopathic traits moderate the effect of testosterone on empathic abilities in men*
Bradley Oster	*Mapping Sedimentary Phosphorus Sources in a Great Lakes Headwater Watershed*
Brandon Reimer Erik Repo Zach Root	*Cognitive and Neural Effects of Binge Drinking Optical Dissector Stereology Social Identity and Neuroendocrine Response in Combative Sports Athletes*
Erika Ruddick	*Psychological and hormonal mechanisms underlying aggression in young women*
Manjot Sandila	*Integrating Strengths- Based Care within Point of Care Environments: Nursing*
Nichole Osbourne and Talisa Pinto	*Student Exemplars*
Victoria Steadman	*Cognitive performance in drug users: Long-term effects of marijuana use on*
Camille Gray Chenoa Godin and Dr. Darren Campbell	*Stroop performance*
Jessica Tabbert Kathryn Benson Brendon Benoit Courtney McColeman and Andrew Holland	*iLEAD Jamaica: Eco-Tourism in Jamaica*
Jasmine Taulu	*Mapping sources of waters to urban streamflow during summer baseflow conditions using a stable water isotope survey: the Chippewa Creek case study*
Amber Videto	*Does self construal moderate the effect of exogenous testosterone on human aggression?*

20:00-22:00	**Reception and Art Installation**	**NU Cafeteria A246**

Saturday April 2, 2016

8:30-15:00	**Registration**	**NU Cafeteria A246 Hallway**
8:45-9:00	**Opening Remarks** **Dr. Nathan Kozuskanich (History)**	**NU Cafeteria A246**
9:00-10:30	**Concurrent Panels**	

	#1 Rhetoric and Reality in the Early American Past	**A224**

Moderator: Nathan Kozuskanich

Presenters:

Deegan Steele	*European Enlightenment in the American Revolution*
An Nguyen	*All men are created equal": Northern Justification of Slavery in the Founding Era*
Josh Loeffler	*Revolutionary Manipulation of Colonial Thinking*
Christopher MacLea	*A City Upon a Hill*

Judge: Eric Weichel

	#2 Courage, Justice, and Education: **Themes and Ideas from Malala Yousafzai's I Am Malala**	**A226**

Moderator: Marc Plamondon

Presenters:

Shaelyn Tyers	*More than One Book and One Pen: An Analysis of the Barriers to Education in Pakistan*
Kourtnei Bickerstaffe	*The Importance of Education on the Future: An Examination of Educational Themes in I am Malala*
Katie Gibson	*Language Use in Higher Education in Pakistan and its Effect on Women's Empowerment*
Ashley LeBlanc	*Discovering Empowerment in Conflict and Inequality*

Judge: Robin Gendron

	#3 Digital Pasts and Digital Presents	**A122**

Moderator: Mark Wachowiak

Presenters:

Tsering Singhe	*Analysis of Northern Environmental Time Series via Interactive Visual Analytics*
Mitchell Timson	*Virtual Vimy Ridge*
Charles Roberts	*Social Media as a Tool for Radicalization*
David Duval	*From Trench Maps to Digital Landscapes*

Judge: Logan Hoehn

10:30-10:45	**Break**	**NU Cafeteria A246**

10:45-12:15		Concurrent Panels	

	#4	**Empire and Aftermath:**	**A224**
		The United States and Insurgency in South East Asia	

Moderator: Stephen Connor

Presenters:

Sabrina Morrison	*The New York Times and the Cambodian Insurgency*
Emily Fachnie	*The Nurses of China Beach: A Study of Gender and Collective Memory on an American Television Series*
Randy Keefer	*Philippine Insurgency*

Judge: Manuel Litalien

	#5	**Reflecting and Representing Community**	**A226**

Moderator: Serena Kataoka

Presenters:

Sarah Marinelli	*Louis, Lully et La Danse: The Holy Trinity Seventeenth Century Musical Arts*
Imogen Wilson	*The Jewish Museum: Challenging Perceptions of History and Spectatorship*
Clarissa Huffman and Salvatore Marchese	*Displacement vs. Engagement: Urban Revitalization in Cincinnati, OH*

Judge: Gillian McCann and Linda Piper

	#6	**The Politics of the Global Community**	**A122**

Moderator: Laurie Kruk

Presenters:

Brianna Hachez Lagacé	*Fetishizing Liberty*
Chelsea Bourget	*The excess of Cheap Luxury within Capitalist Society*
Nathan Olmstead	*Martyrdom & Community*
Meghan Landriault	*Internet Anonymity as a Modern Day Example of the Ring of Gyges*

Judge: Robin Gendron

	#7	**Social Problems, Mental Disorder, and Gender**	**A252**

Moderator: Trevor Smith

Presenters:

Amanda Kopp	*Examining Myths of Violence Among People with Mental Illness: Are They Offenders or Victims?*
Jolene Walmsley	*Gender differences in electroconvulsive therapy (ECT)*
Morgan McIsaac	*Homelessness and housing insecurity among psychiatric in-patients*

Judge: James Abbott

12:15-13:15	Lunch	NU Cafeteria A246

13:15-14:45	**Concurrent Panels**	

| | **#8** | **Sifting Through the Garbage:** | **A224** |
| | | **Unobtrusive Research at its Best and Worst!** | |

Moderator: Christina Deroche

Brett Masse
Jolene Walmsley
Marshall Langlois
Dana Mortensen
Amy Hatcher
Cassandra Battiston
Samantha Sutherland
Sara Mcguire
Kristyn Elste

Judge: Trevor Smith

	#9	**State Violence and its Aftermath: Family, Law, and Politics**	**A226**

Moderator: Rosemary Nagy

Presenters:

Samantha Marshall	*Reassessing a Name: How Children of Nazi Perpetrators Responded to Familial War Crimes*
Riley Allen	*A Day in the Life of Comrade Duch at S-21*
Emily Paul	*Women and Warfare in Ancient Greece*
Eric Patterson	*German Reunification*

Judge: Eric Weichel

#10	**From Conflict to Consensus?**	**A122**
	Assessing Ara Norenzayan's *Big Gods*	

Moderator: Sal Renshaw

Presenters:

Cole Miller	*Norenzayan – Big Gods, Panel Response*
Sandra Brownlee	*Is Hell Stronger than Heaven?*
Brittany James	*Solidifying Society: Big Gods, Prosocial Behaviour, and The Agricultural Revolution*

Judge: Susan Srigley

#11	**Sex, Sexuality, and Stereotypes**	**A252**

Moderator: Wendy Peters

Presenters:

Lauren Parcher	Neoliberal Ideals of Teenage Female Sexuality
Leigh Elliott	Biopolitics and the Underground World of Sex Trafficking
Mary White	Conceptualizing Sexual Consent
Mikayla Jeffery	Reliability and Validity of the Anima-Animus Continuum Scale

Judge: James Abbott

14:45-15:00	**Break**	**NU Cafeteria A246**

15:00-16:30	Concurrent Panels	

	#12 Inside Nazi Germany: Power and Violence in the Third Reich	**A224**

Moderator: Hilary Earl

Allisa Dullemond	*Preaching the Reich: The Relationship between Nazism and Protestantism in Germany*
Curtis Clemence	*Our Last Hope": The Failure of Democracy in the Weimar Republic*
Sydney Mather	*Inviting the World In: Propaganda, Spectacle and Performance at the 1936 Berlin Olympics*
Lindsey Reidke	*Rape in the Reich: The Sexual Assault of Jewish Women in Nazi Germany*

Judge: Richard Wenghofer

	#13 Beats, Bikes, and Biometrics	**A226**

Moderator: Dean Hay

Eric Bourdon	*Biomechanical changes during independent crank cycling*
Chloe Clarke	*The Effects of Binaural Beats on Exercise Economy*
Ryley Hayter	*Does knowledge of energy expenditure influence post-exercise food intake?*

Judge: April James

	#14 Worlds of Literature	**A252**

Moderator: Gyllie Phillips

Amanda Regan	*The race of men has failed': Hobbits and Men in The Lord of the Rings*
Dylan Hall	*Possible Origins of the Greek Novel*
Justine Splane	*Understanding failure: examining Naomi and Piquette in Lives of Girls and Women and A Bird in the House*

Judge: Manuel Litalien

	#15 Muscles, Movement, and Kinematics	**A122**

Moderator: Steve Hansen

Presenters:

Kierstyn Cotnam	Influence of Pre-*contextual Information on the Planning and Control of Aiming Movements*
Brenna McWilliams	*Spatial localization of targets with the eyes open, eyes closed, and blindfolded*
Taylor Feick-Bardawill	*Identifying the timing of movement corrections based on muscle activity and limb kinematics*

Judge: Dean Hay

16:30-17:00	**Closing Remarks**	**NU Cafeteria A246**
	April James (CRC, Geography)	
	Awards for Posters and Papers	

ABSTRACTS

ALBERT, Graham

"Changes in Men's Fundamental Frequency Predicts Aggressive Behaviour"

Men who experience an increase in testosterone following competition tend to behave more aggressively in future competitions. Fundamental frequency (F0), the characteristic closely associated with vocal pitch, is negatively related to men's testosterone levels. Men who perceive themselves as dominant lower their voice pitch during competitive interactions. To date, no research has analyzed how success in competition alters men's F0, or how alterations in F0 are related to future aggressive behaviour. Eighty men were recorded saying the phrase: "Hi, my name is John Smith", before and after a competitive success manipulation. After providing the second voice recording, participants completed the 'Point Subtraction Aggression Paradigm' (PSAP). The Men's F0's were assessed before and after the competitive success manipulation. There was no overall group difference between F0 prior to the competitive success manipulation, (M = 114.80, SD = 17.91), and after (M = 116.48, SD = 16.95), t(78) = -1.51, p = .14, dependence-corrected Cohen's d = -0.170). We next examined within-subject changes in F0, (F0 before minus after competitive success), as a correlation of both provoked and unprovoked aggression towards a member of the same sex in the PSAP. Men who lowered their voices most, relative to their baseline F0 pre-competitive success, showed more provoked, (r = -.23, p = .04), and unprovoked, (r = -.24, p = .03), aggression toward other men. In conclusion, decreases in men's F0's may predict future aggressive behaviour.

ALLEN, Riley

"A Day in the Life of Comrade Duch at S-21"

Kaing Guek Eav, also known as Comrade Duch, joined the Khmer Rouge insurgency in 1964. The values of Khmer Rouge aligned with Duch's, and the tens of thousands of other men and women who were determined to liberate Cambodia from foreign influence. Duch envisioned himself as prominent teacher when the regime gained power. He dreamed of becoming a valued member of the envisioned society that Pol Pot's political party was trying to create. However, when the Khmer Rouge took power in 1975, Duch was not given the job within the regime that he anticipated. Duch became the Chairman of S-21, and a trainer of interrogation and torture. He was responsible for running a prison that killed over 12,300 people. Duch's identity as an officer under the Khmer Rouge changed drastically from his Buddhist upbringing in a peasant village. He was no longer a revered math teacher, but rather a perpetrator of genocide for the Khmer Rouge. Duch became a symbolic figure, just as S-21 has become a concentrated representation of the Khmer Rouge genocide. In 2009, Comrade Duch was on trial in the inaugural Khmer Rouge Tribunal. The manner in which Duch represented himself during the trial was a break-though, a first-hand account of a regime shrouded in secrecy. I am proposing to present a segment of my research paper, on how Duch portrayed himself during the Khmer Rouge Tribunal. I will present a day in the life of Comrade Duch, as the leader of S-21. I have gathered evidence through Duch's interactions with civil parties during the Khmer Rouge Tribunal to reveal the complex character Duch portrayed, in particular his Christian persona.

ARFF, Erika

"Barriers to Physical Activity in Adults with Type 1 Diabetes Mellitus"

Regular physical activity (PA) is recognized as one of the key components to diabetes management for adults with Type I Diabetes Mellitus (T1DM; Lascar, 2014). In addition to general barriers to PA, adults with T1DM may face diabetes-related barriers to PA, such as blood sugar control and blood circulation management. To date, no known studies have examined the relationship between PA participation and barriers to PA in adults with T1DM. The aim of this study is to examine the relationship between PA levels

and barriers to PA in a sample of adults with T1DM. Adults with T1DM (n=18) completed the Godin Leisure Time Exercise Questionnaire, the Barriers to Physical Activity in Diabetes (BAPAD1) scale, and answered open-ended items concerning barriers to PA and perceived benefits. The most salient barriers to PA from the BAPAD1 were "Risk of hypoglycaemia" (M=4.40, SD=2.30), "Loss of control over diabetes" (M=4.35, SD=1.69), and "Work schedule" (M=4.26, SD=1.70). PA levels were not significantly correlated with scores on the BAPAD1, r(16)=.19, p=.445. The most frequently indicated concerns about PA were related to control of blood sugar, while the most commonly cited benefits were related to maintaining good health. This data reveals information about barriers to PA in adults with T1DM that could be helpful for the design of future supportive strategies for this population.

BOURDON, Eric

"Biomechanical Changes During Independent Crank Cycling"

Powercranks are a type of independent crank (IC), designed to train cyclists to pull pedals up at the same speed that they are pushing down in order to reduce the resistance of the recovering leg during the contralateral leg's power phase. The biomechanics of IC cycling is understudied. This study evaluates kinematics and sEMG during IC and DC cycling during a submaximal graded exercise test (GXT). We hypothesized that there would be kinematic and sEMG differences between IC and DC conditions, and that these differences would be greater as external work rate increased. 10 healthy and physically active men performed two linear ramps (IC and DC) to volitional fatigue on a cycling ergometer (Velotron, Racermate, USA). Full body 3D motion capture data (Qualisys, Sweden), and sEMG (Trigno, Delsys, USA) of 6 muscles bilaterally were collected. Comparison of Intra- and inter-limb coordination and lumbar spine kinematics between IC and DC will be evaluated using custom Matlab scripts (The MathWorks Inc.Natick, MA, USA). The data collection has been completed, and the full results will be presented at the conference. As IC are a widely used training tool, it is important to understand their implications with respect to limb coordination and lumbar spine posture. This study seeks to better understand the effect of decoupling the lower limbs during cycling, and consider the rehabilitation implications for people with inter-limb asymmetry and/or lumbar spine disorders.

BOURGET, Chelsea

"The Excess of Cheap Luxury in Capitalist Society"

Despite the title, I would like to think of my work as more open to interpretation, which is important to the integrity of the underlying concept of value. My work includes a shrine, with an assemblage of over 100 watches, and two life sized sculptures titled 'Expectations' and 'Knowledge'. The shrine focuses on Creation and Fractal Geometry.

BOURGET, Chelsea

"National Personifications, Monuments and Memorials"

Mentoring under Professor Eric Weichel, my research aims to explore female allegorical figures as national personifications, and their context in curation as monuments being a mode of public museology. I want to assert that using a female Madonna icon conveys a virtuous aura of femininity in association with war to validate political aims. The examples I have considered are images of monuments, memorials, and 20th century propaganda posters, depicting national personifications.

BRIDEWESER, Rebecca

"Creating Moral Beings With the Help of a Moral God: The Existing Connection Between Ara Norenzayan's *Big Gods* and William Connolly's 'Confessing the Moral God'"

Ara Norenzayan's concept of "mean gods" introduces us to how morals have come to sustain a cooperative society. Norenzayan effectively identifies a possible root of the moral order that is created in society, and how it is sustained through a personal image of god, who is either forgiving or harsh. From this establishment of a moral order, William Connolly then analyzes the anomalies that are formed. Who is excluded? How are communities bound together by moral beliefs? Connolly seeks to identify the benefits of strong social ties within the small group, as well as discuss the status of those who defy this moral order. The goal of this paper is to bring together the benefits and the detriments of the maintenance of a moral order that stems from an image of an omniscient harsh god. By bringing these two theorists into the discussion, we are presented with a more complete view of how morals are not only social constructs, but why there is such a heavy emphasis on them in today's society.

BROWNLEE, Sandra

"Is Hell Stronger Than Heaven?"

This paper aims to criticize Norenzayan's belief that Hell is stronger than Heaven and argue that an individual's belief in heaven could have an equal or stronger affect on behaviour than hell does. The point that Norenzayan is trying to make is that hell is stronger than heaven in the sense that people's fear of punishment is greater than their desire for reward. However, in society today law enforcement and social norms have a similar effect on behaviour as religion does, but these influences are universal, unlike religious belief. Therefore, Norenzayan's argument is questionable because secular reinforcement is likely just as strong as religious reinforcement in society today. He believes that "mean gods make good people" however the primary reason that there are "good" people is not because they are afraid of punishment.

BUTLER-ULRICH, Tess

"The Effects of Age and Temporal Distortion on the Central Auditory Integration Mechanism"

Murphy, Daneman, and Schneider (2006) found that older adults have difficulty remembering conversations when listening to two individuals speaking in a separated space. Follow-up research demonstrated that normal hearing older adults, but not hearing-impaired older adults, effectively combine information presented as two different bands of filtered speech into a coherent speech stream, even when the passbands are presented in separate ears. In this study, we assessed the influence of age on the temporal characteristics of the central auditory processor. Younger and older participants, all with normal hearing, were required to repeat the final word of SPIN sentences that were passband filtered. This removed all but a narrow one-octave band of spectral information at 500 Hz and 4000 Hz. On some trials, participants heard only the 500 or 4000 Hz passband. On other trials, the 500 Hz band was presented in one ear and the 4000 Hz band was presented in the other. A time delay, between 4, 16, or 64 ms, was introduced between the onsets of the passband in one ear and the passband presented in the other. As expected, high predictability sentences were repeated more accurately than low predictability sentences, regardless of participant age and time delay. While both groups showed a significant benefit for dual, compared to single band presentation, at all delays the 64 ms delay decreased the performance of the older adults more than it did for the younger adults. The temporal characteristics of the central auditory processor may be compromised by age, even if the spectral integrity of this system is not.

CARRIERE, Tealia

"Jamaica ILead Trip 2016"

I had the opportunity to travel to Jamaica and help a small business in creating a more profitable environment. We did extensive background research on the location and business before heading down to check it out first hand. We were able to gather information from the owners and their website, and created new business ideas including a wedding package and a camp for the local children. Unfortunately, much like any consultation job, the place was not what we were expecting. This forced us to recreate our business model and give better business ideas that accommodated to their surroundings. One idea we decided to bring forth was Donkey rides. We are formulating a plan of action, and will be sending our findings and business plans to the Jamaican business. We are working on several ideas and hope to make their business very profitable.

CIPRIANO, Carl

"Can the Processing of Facial Expressions in a Binocular Suppression Task Tell us Anything About Theories of Emotion and Aging?"

Do we use the facial expressions of others to understand our environment? Does the way we use this information change with age? According to the Threat Advantage theory, all people use negative emotional facial expressions in others to perceive a potential threat in the environment. In contrast, according to the Socioemotional Selectivity Theory of Aging, older adults only focus on positive environmental information, whereas, younger adults focus mostly on negative information. Thus, older adults should be more aware of facial expressions conveying positive emotions, whereas, younger adults should more easily perceive negative emotions in facial expressions. We attempted to use a simple perceptual phenomenon, binocular suppression, to determine if facial expressions can be used to determine the accuracy of these different theories. Binocular suppression is when a highly visible image presented in one eye keeps the gradually appearing image in the other eye out of perceptual awareness, until that image is visible enough to be perceived. Younger adults, mostly undergraduates, and older adults, age 60+, completed a binocular suppression task. A highly visible masking stimulus was presented in one eye while two images, one a face the other a scrambled face, gradually appeared in the other eye. Some of the faces presented emotions: happy, sad, or angry. Other faces were neutral. The time required to identify the location of the face served as a measure of the time required to break from binocular suppression. We predicted that this time would differ according to the facial expression presented on each trial. Although some faces did appear to break from binocular suppression significantly faster than others, the emotion presented in the face appeared to have little effect.

CLAASSEN, Amber

"Final Words"

The Artwork is a sculpture, and the concept behind this work is the abject. I wanted to address this fear we, as society, have in regards to talking about death. This is something one of my classes, 'Death Dying and Spirituality', address greatly, and really had an effect on me. Death has become this topic/thing that we shy away from, we ignore it and pretend it's not happening, especially when it deals with those we love. And so talking about death has become this taboo thing. So, I wanted to play with that. To represent communication and talking I did a tongue with the end of it burnt, dying, and decaying. I did this on a large scale, so its not easily avoided, it becomes something that is in your face. The work was created to look alive: like a sluggish creature crawling along the ground, as if the alive part of it is trying to escape the dying and decaying part. This is meant to speak to the people who are crawling, avoiding, and/or ignoring the idea and reality of death and dying. Another aspect of this sculpture is that the tongue is a part of your mouth, and so it helps nourish you keep you alive. It is also a sexualized organ, and so there is a juxtaposition with having it show death and decay. The sculpture is made up primary of word, cardboard, foam and plaster. It sits at roughly 70inches long, 50 inches wide, and about 35 inches tall.

CLARKE, Chloe

"The Effects of Binaural Beats on Exercise Economy"

An auditory phenomenon previously described as, 'Binaural Beats', suggests that brainwaves may entrain to, or align to, the perceived frequency, which is the difference between the two frequencies presented. This phenomenon is thought to facilitate state changes, e.g., increased mood, vigilance, alertness, and concentration. Studies have yet to explore whether binaural beats produce changes to enhance exercise performance. Therefore, the present study was designed to investigate whether binaural beat stimulation could provide an ergogenic aid, by affecting the mechanical and physiological variables of running economy, oxygen consumption at a set running speed. 12 habitually active, 18-25 years olds will perform two familiarization sessions of treadmill running for three, five-minute, bouts, separated by 5 minutes of rest. The speeds of each of the three running bouts will be fixed at 2.08,2.50, and 2.92m/s, respectively. During the second visit, the remaining four-minutes of each exercise bout on the treadmill operates in a 'self-paced' mode. This allows the real-time adjustment of belt-speed via high-speed motion capture cameras to detect the subjects position on the treadmill, allowing the subject to run at their own speed based on their subjective ratings of perceived exertion (RPE). Subjects complete three randomized trials listening to: binaural beats (Treatment), white noise (Placebo), and no auditory aid (Control). In each experimental trial data collection includes: pulmonary oxygen consumption which is measured by open-circuit spirometry, heart rhythm which is measured by electrocardiography from three non-invasive skin electrodes, RPE, and mechanical measures provided from force plates located within the treadmill.

CLEMENCE, Curtis

"Our Last Hope": The Failure of Democracy in the Weimar Republic"

The tremendous scale of the devastating consequences of the Nazi regime has led countless historians to attempt to explain the Nazi seizure of power. While historical inquiry into this question is of great value, it is important to recognize the Machtergreifung as a symptom of a larger cause to the Third Reich's establishment, that is, the collapse of democracy in the Weimar Republic. The historiography on this subject focuses heavily on the crisis of 1929 – 1933, and the rise of Hitler. However, when studying the Nazi seizure of power, not from the triumph of fascism but from the perspective of democratic failure, it is important to take into account how democracy survived the period of political and economic instability of 1919 – 1923. The study of the republic's collapse will be achieved through a comparative analysis of the crises of 1919 – 1923 and 1929 – 1933. This comparison will focus on the similarities and differences in the political, economic, and social spheres of the Republic during both periods. This will determine how democracy successfully survived until 1923, and yet failed after the Great Depression. A comparison of these crisis periods demonstrates that the success or failure of democracy hinged on the will of parliamentarians. In 1923, government officials used the democratic principles enshrined in the constitution to protect democracy. However, when democracy came under attack again in the early 1930s, supporters of democracy in the Reichstag, namely the Social Democratic Party, were unwilling to fight for its survival.

CORBETT, Elisha

"Language Framing in the 2015 Canadian Leaders' Debates"

This paper uses content analysis to examine the language framing of the 2015 Canadian Leaders' Debates. The main research question this paper attempts to address is how different political candidates in Canada use language framing. Transcriptions of the Maclean's Debate, The Globe and Mail Debate, and Munk Debate, were put into a content analysis software program, LEXICODER. This paper is a novel contribution to political communication studies, it represents the first data collected on language framing in a Canadian political debate. This paper argues that the Conservative Party of Canada used language-framing tools more frequently than the other parties. The key independent variables that this paper will measure to test this hypothesis include: grammar, diction, metaphors, and sentiment. To test for the use of grammar in the debates, LEXICODER coded the use of imperfect and perfect verb forms, as well as

the average sentence length used per candidate per debate. Additionally, the most common word function in LEXICODER was used to search for the most common diction choices used per candidate. A dictionary was created to search for structural and conceptual metaphors. A different dictionary, in LEXICODER, was also used to measure sentiment to create a net tone for each candidate. The sentiment dictionary consisted of positive and negative sentiment bearing words. The findings of each of the variables being measured is presented for each candidate per debate, as well as in comparison to the other candidates in each debate.

CÔTÉ, Taylor-Rae

"Intrasexual Competition and Aggression in Young Women, 'Judging a Book by its Cover'"

The current experiment assessed whether women are more aggressive toward intra-sexual competitors who are dressed in "sexy" clothing, and whether this effect depends on a woman's self-reported levels of intra-sexual competitiveness. One hundred and twenty female students, between the ages of 18 to 35, were recruited at Nipissing University. They were randomly assigned to interact with either a "conservatively-dressed" woman, or a "sexy-dressed" woman. I predict that women assigned to the "sexy-dressed" condition will be more aggressive participants, competing against the sexy-dressed condition. I predict this will be in contrast to those assigned to the "conservatively-dressed" condition. Also, regardless of experimental condition, participants who score high on intra-sexual competitiveness will be more aggressive than those scoring low on this measure. Finally, I predict that only women scoring high in intra-sexual competitiveness will be more aggressive in the "sexy-dressed" condition, compared to the "conservatively-dressed" condition.

COTNAM, Kierstyn

"Influence of Pre-contextual Information on the Planning and Control of Aiming Movements"

The impact of providing target information, prior to a goal-directed aiming movement, on the reaction time (RT), movement time (MT), and endpoint accuracy was examined. Participants performed aiming movements to a target under 3 reaction time conditions: simple reaction time (SRT), choice reaction time (CRT) with two target pre-cues, and CRT with four target pre-cues. Individuals were expected to be more accurate when moving to targets under the CRT conditions, with longer reaction times in which they allotted more time for better planning of the motor output. Under the SRT condition, short RT and less endpoint accuracy were expected with a corresponding increase in MT. Student-participants who were self-declared right hand dominant were recruited. An array with 4 target locations, and a home position, was displayed on an LCD monitor that had a clear Perspex sheet overtop that acted as the aiming surface. Targets were 15cm from the home position and placed at 0°, 45°, 180° and 225°. For each movement, participants received one of the yellow target pre-cues, followed by a single green target location that acted as the "go" stimulus. A 3-D optoelectronic recording of the index finger was taken along with EMG recordings of muscle activity of the arm. The results will be discussed in the context of Hick's law, Fitts's law, and the multiple processing model of sensory-motor control (Elliot et al., 2010). The outcomes of thee tests have applications in rehabilitation settings, involved in regaining or improving goal-directed movements with many different populations that have movement challenges.

DONOVAN, James

"Long-Term Marijuana use and Spatial Memory Performance: Does Dope Affect Dimensional Recall?"

Long-term marijuana use is hypothesized to impair spatial memory performance. Direct investigations of this hypothesis, however, are limited and inconsistent. One recent study reported no differences in navigational spatial memory performance between long-term marijuana users and non-users. We examined spatial memory performance between non-marijuana users and long-term marijuana users, with a computer version of the Corsi block-tapping task. To date, we have recruited 18 cannabis-using participants, 15 of which are male. As well as 25 non-using young adults, 8 of which are male. Marijuana

users reported using cannabis for a mean of 3.85 years (SD = 1.98), and a mean of 3.8 grams (SD = 4.84) consumed per week. The Corsi spatial memory task measured participants' ability to reproduce progressively longer spatial sequences of briefly illuminated squares. Spatial sequences began with 2 briefly illuminated squares on the set of 9 non-linearly positioned squares. Two repetitions of each sequence length were assessed, and two errors within a sequence length ended the task. Among males, marijuana users (M = 5.87, SD = 0.69) did not differ in memory span from non-users (M = 5.63, SD = 0.64). Among females, the users (M = 6.17, SD = 0.76) scored higher than the non-users (M = 5.19, SD = 0.77). Neither duration, nor intensity, of marijuana use were correlated significantly with spatial memory performance. Our pattern of findings is consistent with studies reporting no differences between long-term marijuana users and nonusers in spatial memory. Future studies should assess more varied spatial memory configurations for increased sensitivity.

DULLEMOND, Allisa

"Reich and Religion: Not as Different as One Might Think"

In many ways Nazism and Protestantism successfully coexisted throughout the history of the Third Reich. Despite modern popular opinion, many aspects of the Protestant faith coincided, or were altered to fit within the ideals and practices that were promoted by the Nazi party. I will be examining the relationship between Nazism and Protestantism through a comparison of ideals as well as their interactions. In examining the interactions there will be a focus on Ernst Biberstein, who became a Protestant pastor in 1924, and became a member of the Schutzstaffel (SS) in 1936. There are many intriguing aspects of the relationship between the Third Reich and Protestant denominations, including the new doctrines that incorporated both Nazism and faith, as well as the transfer of responsibilities. These, among other aspects, highlight the relationship that developed between the Third Reich and the Protestant Church throughout the Second World War. The objective of my paper is to explore the ways in which Protestants participated in the actions of the Third Reich, and what, in their set of beliefs, allowed them to participate in the atrocities that took place. To fully understand the relation between the two groups, I will examine their set of beliefs individually before comparing the ways in which they coincide. Contrary to popular opinion, the seemingly unlikely pairing of Protestantism and Nazism became a dangerous combination under the Third Reich.

DUPUIS, Natalie

"The Relationship Between Three types of Stress and Emotional Intelligence in the University Student"

Stress is an inevitable part of a university student's career. Some students thrive, and view stress as a challenge, whereas others have difficulty coping with these pressures (Stoliker and Lafreniere, 2015). These sources of stress tend to be amplified within the university environment (Howard, Schiraldi, Pineda and Campanella, 2006). Emotional intelligence, which consists of the ways in which we perceive, understand and process emotional cues (Mayer et al, 1999), is related to decreased stress in students attending university or college (Mikolajczak, Petrides, Coumans, & Luminet, 2009). Additionally, emotional intelligence is related to positive life aspects, such as increasing the quality and strength of social relationships, and positively influencing academic achievement (Goleman, 1995). The purpose of this study is to examine the stress that is experienced by university students, and to determine which of these three types of stressors: academic, financial and social, explain most of the variance in overall stress scores. In other words, we want to determine what type of stressor is most responsible for the stress that students are feeling. Emotional intelligence will also be measured, to see how it correlates to the overall level of stress experienced by students and the specific types of university stressors. With the permission of professors, students completed a survey measuring stress related to financial, social, and academic concerns and emotional intelligence.

DUVAL, David

"From Trench Maps to Digital Landscapes"

This research employs advanced image and data processing techniques, to contribute to a larger collaborative research initiative with the Communication and Electronics Museum in Kingston. This research will lead to the development of a web-based exploratory application. This application will be part of a centenary public exhibition, hosted by the Museum to commemorate the 1917 Battle of Vimy Ridge. The purpose of this research is to create a representation of the landscape, and trenches, of the battlefield during the Battle. A set of 1917 hand-drawn trench maps were incorporated into a GIS (geographic information system) framework, by combining elevation information and image processing to form a digital landscape. From these digitized hand-drawn maps, a region of interest containing the trench information was selected, using colour information and refined via manual image editing. Subsequently, these digital trenches were converted to trench information, as minimally connected lines while still maintaining connectedness by using both custom and advanced image processing techniques. The combination of these minimal lines and elevation data facilitated the generation of mesh tiles that are loaded when needed by the application. Constructing these meshes involved several advanced and custom image-processing procedures needed to account for the variations in the trench line geometry. The end result allows the general public to view the terrain and landscape as Canadian Forces would have in 1917.

ELLIOTT, Leigh

"Biopolitics and the Underground World of Sex Trafficking"

This paper is an analysis of Foucault's thesis regarding the two modern techniques of power. These include: biopower, in which the focus is upon supervising and regulating the processes of life, essentially harnessing and accessing power through the body itself; and discipline, a technique of power that treats the body as a machine, optimizing its capabilities, and integrating it into social and economic systems and controls. My thesis is to demonstrate how these techniques of power, which Foucault argues are deployed everywhere in society, are utilized by organized crime to break down and rebuild bodies for the purposes of sex trafficking. Just as the military, the prison system, and other social/political mechanisms use biopower and discipline to reform individuals into productive bodies for their purposes, so too do those responsible for "grooming" individuals for the purposes of sex trafficking. This illicit industry uses the exact same techniques to deconstruct and reconstruct bodies for financial gain. This paper is a work in progress. As such, my presentation will focus upon the completed work I have done regarding Foucault's theory on the deployment of these techniques of power into the social body. Thus, the first few chapters of my paper that I shall present engage in a textual analysis, and expository synopsis of Foucault's *History of Sexuality*, and *Discipline and Punish*.

ELSTE, Kristyn; **MCGUIRE**, Sara; **SUTHERLAND**, Samantha; **BATTISTON**, Cassandra; **HATCHER**, Amy; **MORTENSEN**, Dana; **LANGLOIS**, Marshall; and **WALMSLEY**, Jolene

"Sifting Through the Garbage: Unobtrusive Research At Its Best and Worst!"

This panel will discuss the benefits and disadvantages to an underutilized manner of qualitative inquiry while providing examples to highlight these issues. Discussion will centre on a) the advantages of its use, b) the disadvantages of its use, c) an example of actuarial research involving content analysis of children's literature, and d) object analysis in the form of human trace. Each panel discussant will contribute to a greater understanding of this underutilized method while allowing for more discussion between panelists and audience. Audience participation may be required. Panel Discussants: Brett Masse and Jolene Walmsley: discussing the disadvantages; Kristyn Elste, Sam Sutherland, Dana Mortensen: discussing advantages; Cassandra Battiston and Amy Hatcher: discussing children's literature in actuarial research; Marshall Langlois and Sara McGuire: discussing garbage as human trace analysis

FACHNIE, Emily

"The Nurses of China Beach: A Study of Gender and Collective Memory on an American Television Series"

Collective memory is shaped by the contemporary values and ideas of the time in which it is created, whether the collective memory is depicted on film, in literature, or another form of media. I will study this idea using the case study of female nurses from the Army Nurse Corps on the television series China Beach. I study the representations of the nurses on the television show, specifically the central character First Lieutenant Colleen McMurphy. I consider the roles that the character of McMurphy represents, especially in contrast to the other female and male characters, the language that characterizes her roles, and the changes in her roles throughout the four seasons. I consider these depictions in the context of the time period, and in comparison to the contemporary ideas of women. This research paper studies the role of contemporary ideas of women, between 1988 and 1991, in the shaping of the collective memory of the American nurses who served in the Vietnam War. This study will provide a deeper understanding of the ideas surrounding women between 1988 and 1991, as well as contribute to the scholarship on collective memory, and the use of television in historical studies.

FEICK-BARDAWILL, Taylor

"Identifying the Timing of Movement Corrections Based on Muscle Activity and Limb Kinematics"

People perform simple aiming movements every day, but the control of those movements is complex. In this experiment, the timing of the human sensory-motor feedback system in response to target jumps was examined. Specifically, the electromechanical delay between target jump, observed muscle activity, and adjustments in the trajectory was examined. Further, we intended on quantifying the timing of responses under high (76%) or low probability (24%) of a target change. Muscle activity was measured through six electromyography (EMG) electrodes and the right index finger's trajectory was measured by a 3D optoelectronic camera. Based on previous works from our lab, sex differences in response to target change were expected. Specifically, females were expected to be more accurate in their movements while making more corrections and males were expected to be much faster with all of their movements while sacrificing accuracy. These effects were expected to be more pronounced for females when completing the high probability of change trials and for males when completing the low probability trials. For the task, participants aimed to a 5mm square target that could move 50mm more proximal or distal after movement initiation or remain in the same location. During a block of 100 attempts, the target moved 24% of the time. In another block of 100 attempts, the target moved 76% of the time. Results will be discussed in the context of the multiple-processes model of the sensory-motor control of goal-directed actions. The outcomes have implications for ergonomic design, rehabilitation, vocational, and sport settings.

GIBSON, Emily

"Getting Acquainted Online: The Role of Self-Disclosure, Responsiveness and Similarity on Liking"

Online communication is increasingly becoming a topic of interest. As a form of interpersonal communication, it is unique in having limited, non-verbal cues, but greater independence and flexibility in forming verbal response options. Multiple sources hypothesize self-disclosure, responsiveness, and similarity to be important factors in determining whether individuals will be interested in further communications with their partner. The current experiment examined the relationship between interest and disinterest, based on whether self-disclosure, responsiveness, and similarity were present in the exchanges. One hundred and seventy undergraduate students, 88 male and 81 female, were recruited to rate interest or disinterest based on pre-recorded, naturalistic, online conversation exchanges. Overall, these students rated twelve conversations, which contained between seven and twelve exchanges, with approximately fifty words per exchange. These same exchanges were rated according to the presence of self-disclosure, responsiveness, and similarity by eleven trained raters, 5 male and 6 female. Based on

these latter ratings, the exchanges were analyzed to compare which dimensions were crucial, for an individual to show interest or disinterest in a conversation. I predict that high levels of self-disclosure, high levels of responsiveness, and high levels of similarity will lead to higher levels of interest. Furthermore, I predict that there will be an interaction between each predictor, which will result in altered student interest ratings and overall liking levels. An analysis of the data is underway, and the results will be discussed at the conference. This research provides a distinctively specific and comprehensive investigation of the acquaintanceship process.

HACHEZ LAGACE, Brianna

"Fetishizing Liberty"

'Liberty' in the painting, "Liberté Guidant le Peuple," by Eugène Delacroix, has been fetishized from a Marxist and Feminist point of view. The essay discusses the contemporary works of Dany and Xia Fei-Fei, these are reproductions of the piece, as well as the original in order to create a platform to compare Liberty's role in each piece. I have purposefully chosen works from separate countries, using one from France- Dany, "Je Suis CHARLIE", to parallel the original. As well, I have chosen a work from China- Xia Fei-Fei "Liberty Leading the People", in order to explain how far the reach of the fetishizing and propagandizing of the Delacroix piece goes. I will use concepts of feminism, which I have learned from reading the works of scholars such as Mary Wiseman, Griselda Pollock, Rozsika Parker. These concepts will be used to approach the issues behind using 'Liberty' as a symbol, but also to address the advantages. I will also prove that the fetish of 'Liberty' has been used to propagandize socio-cultural issues. I will use Marxist theories to prove the methods of propaganda used by the artists. I will use concepts such as the aura, Walter Benjamin, and Marxist concepts of mass production brought forward by other scholars as well Michael Yonan. Altogether, the paper discusses the three works, although there exists a wide range of reproductions of this piece. However, these works were ideal for the paper in order to bring my thesis together.

HALL, Dylan

"Possible Origins of the Greek Novel"

The exact place that the Greek novel occupies within ancient Greek literature, as a genre, is somewhat ambiguous both to modern scholars and possibly to the ancient Greeks themselves. This paper will attempt to uncover the origins of the Greek novel, by identifying the common tropes and themes found within each of the surviving Greek novels, and comparing these to those found within Old and New Greek Comedy, as well as later Hellenistic bucolic poetry. Daphnis and Chloe, a novel by the second century CE author Longus, will be at the center of this analysis. Through this analysis, I hope to demonstrate that the Greek novel was a continuation of the comedic genre, which had fused itself with the Hellenistic bucolic tradition. In addition, I shall argue that this development arose in order to address the changing needs, and increasing anxiety of a people uncertain of their place within a changing and increasingly globalized world. The ultimate goal of this paper is to add to the ongoing scholarly discussion on the nature of the Greek novel, so that this genre and its characteristics might be better understood, and thus more reliably utilized by scholars conducting research pertaining to the ancient Mediterranean world.

HATCHER, Amy

"Developing a Student Stress Scale for University Students"

Stress is an area of research that is both popular and necessary due to the many negative outcomes which can result from prolonged stress on overall health and specific health concerns including fatigue, an inability to concentrate, anxiety, depression, and frustration. Students may be especially vulnerable to these negative health outcomes as they have to balance educational requirements, work, recreation, daily hassles and finances often for the first time on their own without the support of parents. The level of stress experienced by college students has grown significantly over the past 30 years (Prichard, et al., 2007; Mackenzie et al., 2011) and therefore, it is not surprising to see that reports of the frequency and

severity of mental health problems reported by college students are also increasing (ACHA, 2005). College students perceive stressors along multiple dimensions including, academic, financial, social, sexual demands and sleep deprivation (Weckwerth & Flynn, 2006; Denovan & Macaskill, 2013; Rocha-Singh, 1994). As yet, there is no clear understanding of which factors contribute most to the overall stress experienced by post-secondary students and there is also no one scale currently available which is comprehensive enough that it can be used to screen for and identify these contributory factors which are most meaningful for an individual student. The purpose of this project is to develop and evaluate a comprehensive multidimensional scale which measures and compares different sources of stress for post-secondary students.

HAWCO, Markus

Our poster presentation displays observational research study to evaluate consumer behaviour. Our group: Myself, Zack Pecore, Tyler Black and Ajord Topicu, conducted an observational research on the consumer behaviour of LCBO wine consumers. Data was collected via recording sheet and graphing data with regression lines.

HAYTER, Ryley

"Does Knowledge of Energy Expenditure Influence Post-Exercise Food Intake?"

During physical activity (PA), individuals may overcompensate for the energy expended during exercise through post-exercise energy intake (Fenzl et al., 2014). Anecdotally, individuals have reported gaining weight after monitoring their PA and calorie expenditure through fitness devices (NBC News, 2014), however there have been few studies that have examined if knowledge of caloric expenditure influences energy intake post-exercise. The purpose of this research is to explore the relationship between the knowledge of calories burned during a bout of exercise and post-exercise food intake. Our methods used are as followed: Male and female participants (N=50) will complete a pre-exercise questionnaire, followed by 30 minutes of cardiovascular exercise on their choice of equipment (e.g. treadmill, bike, elliptical trainer). Each participant will be provided with an expected value of calories burned. Caloric expenditure will be assessed through a Fitbit activity tracker and the cardiovascular machine. Control group participants will be told the calories burned during the exercise session were similar to the expected value. Participants in the experimental group will be told they have burned 50% more calories than expected. A post-exercise survey will be completed during which food and drinks will be offered and number of calories consumed will be determined. Planned Analyses: Student's t-test will be used to compare differences in post-exercise energy intake between the control and experimental groups. Application: The findings from this research may be useful in explaining why some people may gain weight or struggle to lose weight once they begin monitoring their PA through fitness trackers.

HUFFMAN, Clarissa and **MARCHESE**, Salvatore

"Displacement vs. Engagement: Urban Revitalization in Cincinnati, OH"

The City of Cincinnati is currently undergoing a massive physical and social transformation as city leaders, private development corporations and non-profit organizations seek to revitalize poverty-stricken neighbourhoods and bring diversity and vitality back to the central neighbourhoods of the city. This paper presents a detailed qualitative analysis on the different approaches taken by two such actors, the Walnut Hills Redevelopment Foundation and the Cincinnati Center City Development Corporation (3CDC). Both organizations are facilitating large and small scale civic interventions in an attempt to foster a stronger economically and socially vibrant city. A major issue with regards to these different approaches is that of community engagement versus displacement in revitalizing downtown Cincinnati communities. This paper will also briefly compare Cincinnati with two neighbourhoods that have recently undergone massive revitalization: Regent Park in Toronto, and Detroit, Michigan. With the help of field visits, one-on-one interviews, and academic presentations, this paper explores the ways in which the two identified community groups transform under-utilized spaces, restore derelict buildings, engage community members to foster a sense of belonging and inclusiveness, and create safe and dynamic spaces for a

diverse range of individuals. It is clear that the two organizations differ quite drastically in vision and delivery, so the main purpose of this paper is to explore this contrast and identify the strengths and weaknesses of each and to suggest ways in which the two groups might learn from the other's approach to invest in a socially and economically viable city.

JAMES, Brittany

"Solidifying Society: *Big Gods,* Prosocial Behaviour, and The Agricultural Revolution"

This paper examines the work of Ara Norenzayan in his book, *Big Gods: How Religion Transformed Cooperation and Conflict.* It will explain and contrast the arguments made in chapters Three, Four and Seven of this book. The general argument made in this work is that the influence of supernatural watchers causes prosocial tendencies among anonymous individuals for the benefit of solidifying large-scale societies. Beginning with the agricultural revolution, the institution of wide-spread religion has allowed for society to exist the way is has for millennia. Within this general argument, Norenzayan explains how vast trade networks have relied on this phenomenon to remain stable throughout history. In Chapter Seven of his book he poses the question: "Is Big God religion the thing that caused human beings to leap from being characteristically hunter-gatherer to the social, complex beings we are today?" The answer is yes. However, Big God religion is not necessarily the sole cause of this leap in social evolution. Many other factors also exist within groups that can cause prosocial behaviour. Race, ethnicity, and geographic relevance could be rooted in anonymous, altruistic behaviour. Climate change could have contributed to the jump into agriculture, and the creation of Big Gods was not necessarily a fluke or evolutionary collateral damage, but inevitable. I will use the works of Ali M. Ahmed, Graeme Barker and others to explain these theories, and humble Norenzayan in his pursuit to find a cause for the function of society as we know it.

JEFFERY, Mikayla

"Reliability and Validity of the Anima-Animus Continuum Scale"

Humans have the propensity to simplify reality in order to process and retrieve it more quickly by using predetermined schemas and stereotypes. As a result, humans tend to dichotomize almost everything. This dichotomization can be extended to reflect society's firm beliefs in the current sex dichotomy. People tend to feel as though everything needs to fit into distinct categories, especially when it comes to sex and this can be problematic by leading to discrimination. Although sex is a biological construct and cannot be fundamentally changed, the way in which society views it can be. Biological sex does not define an individual. People cross the sex dichotomy divide every day because it is not a suitable representation of the wide variety of differences that exist among humans. The current study intends to rectify the aforementioned limitations by creating a more comprehensive, continuous scale. The specific purpose and objectives of this study are to demonstrate that gender exists along a continuum that consists of behavioural, emotional, psychological, and physical aspects of human nature. This will be tested by examining the reliability and validity of such a continuum. Participants are asked to rate someone whom they are extremely close to and have known for a period of three or more years on a series of items. Item analysis and factor analysis will then be carried out to determine the reliability and validity of the items.

KAFKA, Tricia

"Facilitating Access and Equity in Rural Areas"

Rural Canadians face significant barriers to accessing health care such as geographic distance, poor transportation options, and a limited range of services, all of which have a negative impact on health outcomes. Despite a recent focus on improving access to health care services in rural areas, there is evidence that shows the rural Canadians continue to have higher incidences of obesity, cardiovascular disease, diabetes, and hypertension with less access to care than urban populations. High quality health care can only be optimized when clients have access to the system. The presentation will discuss the relationship between access and equity to health care services and rural client health outcomes, the role

of community health nurses as primary care providers in rural communities, and explain how nurses can advocate for the elimination of social inequities through changes in policies, systems, and resource allocation; enhance health literacy by working collaboratively with clients and agency partners; and develop cultural competence skills by progressing through Campinha-Bacote's conceptual framework. The author will highlight the results of a review of a number of current, peer reviewed scholarly nursing resources in which the research supports that culturally competent community health nurses improve health outcomes and quality of care in rural communities. Improving universal and equitable access benefits individuals, communities, and the health care system. It is important for Registered Nurses, especially in rural communities, to assess and recognize the impact of the social determinants of health on health outcomes; advocate for the elimination of health inequities by facilitating access and equity in health care services in order to help empower rural communities and provide high-quality client-centred care.

KEEFER, Randy

"Philippine Insurgency"

What were the circumstances involved in the devolution of the Philippine Liberation Army into a guerrilla force during the Philippine-American War? This paper provides an analysis of the short lived Philippine Insurgency (1899-1902) through a comparison to other historical insurgency cases, specifically that of Che Guevara in Cuba and Mao Tse-Tung in China.It looks to realize one of the earliest cases of American counterinsurgency by considering the structure of the insurgence themselves, through understanding their actions, beliefs and goals. By comparing the Philippine Insurgency (1899-1902) to other insurgencies it will provide insight into the intention behind the Filipino struggle. With Mao there is an important involvement of guerilla tactics leading to a more conventional standing army, this is in opposition to the events in the Philippines, the distinction is important to note in considering the tactics used by the Filipinos. The aggregation and analysis of historical documents, focusing on the Philippine perspective, will allow for an understanding of the motives which drove resistance against the Americans. Devolution of tactics took place as the Philippine Liberation Army dissolved from standard pitched battles to guerilla warfare in an effort to break the resolve of the superior American forces. The Philippine insurgence was unable to repel American forces and ultimately succumbed to the occupation and assimilation campaign of the United States. It is an early modern case of a successful counterinsurgency strategy that worked but which has had little success in being reproducing in other contexts such as in Iraq and Afghanistan.

KNOBEL, Kimberly

"iLEAD Business Experience Certificate Awareness Campaign"

As an active student completing my iLEAD Business Experience Certificate I know the benefits first hand. My research examines the estimated level of awareness and interest in the iLEAD Certificate among business students. The initial research via a self-administered survey had determined that there was a lack of awareness throughout the students in The School of Business. Based on the results of the survey, I have researched and proposed a number of different marketing strategies and options for an awareness campaign to increase the overall awareness and knowledge of the students within The School of Business at Nipissing University.

KOPP, Amanda

"Examining Myths of Violence Among People with Mental Illness: Are They Offenders or Victims?"

Many people believe that the mentally ill are prone to violence and aggressive outbursts. Such beliefs can lead to social stigma, resulting in discrimination and prejudice against people with a history of mental illness. This social stigma is important in determining the life chances of individuals upon their re-integration into the community. This presentation will briefly highlight the literature, showing that in fact,

such individuals are more likely to be victims of assault and violence rather than perpetrators. The presentation will then examine indicators of aggression and violence being both directed towards people and being received by patients. Analyses for this presentation were derived using secondary data from a pilot test of the interRAI Mental Health (RAI-MH) of psychiatric inpatients (N=4770), from 34 different facilities in Canada. The findings of this presentation show that individuals with mental health issues are more likely to be recipients of violence, rather than perpetrators of violence.

LANDRY, Nicholas

"Deep Learning and The Brain: Towards More Biologically Inspired Network Architecture"

Deep neural networks use multiple layers of nonlinear processing units, modelled heavily on the architecture of cerebral cortical networks, for feature extraction and data transformation. The study of artificial neural networks has long been understood to shed valuable insight on the developmental processes and evolution of biological brains, elucidating the complex mathematical structure of neural information processing. Likewise, the biologically inspired deep learning paradigm of machine learning has shown powerful applicability in the field of pattern recognition and provided promising avenues of computational resources required for a myriad of diverse applications—as such, deep learning has garnered fervent support from the field at large. This review investigates the ongoing reciprocal relationship between our understanding of the brain and the development of increasingly powerful deep learning architectures. I explore the contributions the study of deep learning has made to the field of neuroscience, its current applications, as well as the future directions and considerations in the ongoing advancement of biologically inspired artificial neural networks.

LAMOREA, Sydney

"Effects of Ethanol on the Regeneration Speed and Morphology of Planarians: A Model for Alcohol-Related Neurodevelopmental Disorders"

A wide spectrum of structural and functional anomalies can result from prenatal exposure to alcohol. Alcohol related neurodevelopmental disabilities (ARNDs) vary widely and are influenced by a host of individual, social, and cultural factors. While individual variability is wide, clinical and research findings show impaired information processing, neuropsychological and adaptive behaviour impairments, growth retardation, and facial dysmorphology; the latter specific to the subset of individuals with exposure during the first trimester of pregnancy. Planarians present an opportune choice for studying the effects of alcohol on the developing central nervous system. These flatworms possess a simple CNS, and exhibit extraordinary regenerative capabilities over the course of just two weeks. In the current study we demonstrate the impact of alcohol exposure during regeneration on morphology, regeneration speed, and mortality rate of both the head and tail fragments of the planarian, Dugesia dorotocephala.

LANDRIAULT, Meghan

"Internet Anonymity as a Modern Day Example of the Ring of Gyges"

Technology has given us the ability as humans to accomplish countless achievements that were only dreamt possible to past generations. One of these achievements is the power of invisibility. Invisibility has been a topic of interest to humans for thousands of years. Plato spoke of invisibility in his myth The Ring of Gyges. Though we still have yet to invent a way of physically turning ourselves invisible, we have found a way to act invisibly through Internet anonymity. By comparing Plato's Ring of Gyges with Internet anonymity this essay will show that technology has allowed humans to achieve the same power as Gyges ring. With the same power comes the same consequence. By having invisibility or anonymity we are allowing people to have raw power to do and say whatever they please. This lack if responsibility for your actions leads to consequences for a society. Internet anonymity is an illustration of the new type of moral problems we will see with the development of technology. With the new abilities that we will soon be capable of we will surly face new ethical dilemmas. This research paper argues that academics must

update the way these dilemmas are thought about. To do this we are going to need to use a Transhumanist moral code that takes technology into consideration.

LEBLANC, Ashley

"Discovering Empowerment in Conflict and Inequality"

This research explores women's education in war torn countries. When women are educated in these countries, it can lead to improved social status because it eliminates one of the contributing factors to gender inequality. In her memoir titled, *I Am Malala: The Girl Who Stood Up for Education and Was Shot by the Taliban*, Malala Yousafzai tells the story of her fight for education for girls in a country run by the extremist group The Taliban. In a conflict-affected country that displays poor governance, political instability, and ongoing violence, she refused to be silenced in her efforts to stand up for what she believed in. Her strong will and dedication was what made her the survivor and Nobel Peace Prize recipient that she is today. As displayed in her story, withholding women's education promotes inequality and threatens peace, and this injustice strongly promotes the empowerment of women like Malala.

LOEFFLER, Josh

"Revolutionary Manipulation of Colonial Thinking"

The thirteen British colonies in North America had enjoyed relative freedom over the course of their existence. The mercantilist slave trade was proving to be quite lucrative for both the Americans and their British overlords. From the late 1680s to the 1750s, Great Britain had waged several indecisive imperial wars against both Spain and France. The French and Indian War, however, doubled the amount of land under British control in North America at the cost of a significant increase to the national debt. After 1763, the era of salutary neglect was over as Great Britain south to re-establish its authority over the colonies and increase taxes in order to administer its expanded empire. Many historians claim that it was these taxes and oppression that British authority exerted that pushed the colonies towards revolution in 1776. However, the American colonies were among the least taxed people in the British Empire at the time, so why would these taxes cause them to revolt and declare independence? Why bring such pain and suffering to their people through the wrath of the British Empire just to keep a little extra money in their pockets? The Revolution almost failed in its early years due to a lack of support from colonies outside of Massachusetts. The Republican language of the Declaration of Independence is what ultimately dragged all of the colonies and their people to war. Although many colonists had their own thoughts on the British and their authority, why were they so willing to accept the republicanism of their leaders? Why was this republicanism they fought so hard to achieve ultimately abandoned in the aftermath of the Revolution? This paper will answer these questions by showing how Republican leaders manipulated the thoughts of colonists by tying their micronarrative struggles to the macronarrative Republican idealism of the revolutionary leaders.

MACLEA, Christopher

"A City Upon a Hill"

In 1630, John Winthrop and his fellow Puritan believers fled to the New World from English religious persecution in order to establish a safe haven for their Christian charter. John Winthrop wanted Massachusetts Bay to be more than a new home; he envisioned it to be an example for all other colonies and nations to strive towards. Winthrop stated, "We shall be a city upon a Hill". This saying went deeper than just from the words from the gospel of Matthew, it laid the foundation of the ideologies practiced by the Puritans when developing their New England society. Puritanism flourished in New England in the early decades of the colony, but its religious dominance did not last long into the eighteenth century. This research paper will focus on the social, cultural, and political factors that ultimately impacted the Puritans' culture and ended of their religious political dominance in New England. How did the aftermath of King Philip's War and the introduction of the Dominion of New England impact the political institutions implemented by the Puritans? How did domestic warfare and imperial oversight change New England's

society? Were the Salem Witch Trials, and the hanging of women accused of practicing witchcraft, the final major event that brought the downfall of the Puritans reign in New England? And was it possible for the Puritans to maintain an isolated religious society, or did migration and the development of the colonies bring Winthrop's vision of a "City upon a Hill" to an end?

MARINELLI, Sarah

"Louis, Lully et La Danse: The Holy Trinity Seventeenth Century Musical Arts"

Seventeenth century France is often regarded as the pinnacle of French artistic achievement. This is in no small part thanks to one particular Monarch, Louis XIV. From the construction of Versailles to the creation of the nation's academies d'art Louis strove to have his reign remembered not only for its political and military success but also for its artistic legacy. His particular passion was for the dramatic arts, especially those accompanied by music. The operas and ballets of his time have since become the hallmarks of his reign. Because of his artistic passion and his ability to recognize the overall social and cultural significance of a unified and royally ordained artistic program. Music and dance thus became the sociopolitical tools that courtiers of the time could use to both gain the king's attention and win his favour. Jean-Baptiste Lully, an Italian born peasant, became a central figure at court during this time because of his ability to combine musical talent and shrewd social climbing. By exploiting Louis' love of music and pandering to his enormous ego, Lully was able to usurp another notable musical figure of the time, Pierre Perrin, to become the head of The Royal Academy of Music. With this appointment, and subsequent royal edicts limiting musical production freedom within France during this time, Lully effectively gained a monopoly over the French music scene and therefore a monopoly over the best tool to gain the king's favour.

MARSHALL, Samantha

"Reassessing a Name: How Children of Nazi Perpetrators Responded to Familial War Crimes"

At the mercy of a name, children of Nazi perpetrators had to decide how they would respond to their fathers' war crimes. What once was heroism for the perpetrator fathers often became oppressive shame and guilt for their children. The struggle between loving attachments to the family and an ethical response to a family member's violence was an inner conflict experienced by the children of Nazi perpetrators when responding to their fathers' war crimes. Focusing on an assortment of interviews conducted after the descendants of perpetrators reached adulthood in the 1970s until the present year, as well as scholarly articles analyzing the process of passing down memory and responsibility throughout generations, this research illustrates the challenge behind understanding a father's war crimes and the differing responses that children of Nazi perpetrators had towards their fathers' war crimes.

MATHER, Sydney

"Inviting the World In: Propaganda, Spectacle and Performance at the 1936 Berlin Olympics"

For my research paper I examine the 1936 Berlin Olympics as propaganda for the Third Reich. The Olympics present us with a unique moment to study society and the views, which that society held. They essentially invite the world to take part and experience a spectacle like no other, and this is evident in the case of the Berlin Olympics. Germany put on a show unlike anything seen before, which makes it so interesting to study. It was not just the sporting events that were designed to showcase Germany, it was the opening ceremonies as well as the cultural events held outside the games that showed the world just how ready Germany was to rejoin the world. The Olympics also bring up another point and that is the growth of Sport in Germany during the Weimar Republic and Third Reich. It was after the First World War that Germany began to make a change in its organized sports however; they were persuaded against participating in the two games after the First World War. There are a number of questions that the Berlin Games raises, but the key question is whether or not that the games can be considered a successful piece of German Propaganda? By looking at what the Third Reich did to prepare for the games, as well

as the games themselves we gain an understanding of what the purpose of the games were, outside an annual sporting event.

MCCASKILL, Gillian

"Redefining the Marketing Strategy of A Not-for-Profit Organization"

For the scope of iLead research was conducted to obtain information about the organization and surrounding competitive environment using the marketing strategy planning process (MSPP). The data collected directed the scope of iLead II, and resulted in four collaboratively decided upon recommendations to pursue: 1. Social media landscape evaluation and modification 2. 'Get Connected' Survey Campaign 3. Website Evaluation 4. Brochure Distribution System iLead II focused on taking action to complete the recommendations. Overall, there were positive gains made in both recommendations 1 and 2. For Recommendation 1, there was a 70% increase in engagement, "likes" increased by 5% and the page surpassed 1500 likes, which met the proposed objective. Recommendation 2 saw the current database increase by two-fold, while also providing valuable demographic information through a sample size of at least 800-1000 .The other two recommendations were not addressed during this placement, due to time constraints and the collaborative decision about which goals were the priority. Theoretical and conceptual knowledge learned in the classroom translated into the foundation of the placement strategy, and there were many opportunities to practice using a variety of marketing tools in application during the process of auditing and making recommendations. Other learning included building a professional network in the theatre industry, the community and other organizations; the development of soft skills; and gaining perspectives and experiences that can only be taught outside of the classroom.

MCCHARLES, Taylor and **HAGHOO**, Kristina

"Revised Methodology for SYNORF-1 Antibody Staining in Planarians."

Planarians have become increasingly popular in studies due to their unique regenerative properties. These unique properties make their nervous system a key interest in future studies. To further visualize their neural structures we use immunohistochemistry. To specifically visualize the synapses in planarians we use SYNORF-1 antibodies. We have recently developed a revised methodology, compared to previously published works, using the SYNORF-1 antibody for labelling in Dugesia dorotocephala. To overcome initial issues with the existing procedure we investigated a bleaching methodology prior to the revised SYNORF-1 immunostaining protocol. Planarians are dark pigmented therefore this will inhibit clear imaging. This bleaching procedure removes the dark pigmentation in the planarians which allows for optimization of imaging and assists in reliability. The bleaching step preceding the initial antibody incubation also assists in making the tissue more permeable to the antibodies. This methodology optimized our needs for visualization of the planarian nervous system to be used in various experiments including studying regenerative properties.

MCLAREN, Meghan

"Effects of Sexually Explicit and Non-Sexually Explicit Videos on Salivary Testosterone Concentrations and Dehumanization"

The current experiment examines the underlying psychological and hormonal mechanisms involved in males' social perception. This research investigates the effects of viewing a sexually explicit video (versus a non-sexually explicit video) on salivary testosterone levels, as well as the likelihood of participants to dehumanize a woman, i.e. attribute less uniquely human traits to her, such as openness and conscientiousness, after watching the video. Participants were randomly assigned in a between-subjects design to either the experimental condition (sexually explicit video) or the control condition (Ted Talk video). Saliva samples were collected before and after watching the video. Next, participants watched a short video clip of a young female talking about herself, and were then asked to rate the woman on various personality characteristics. The findings for levels of testosterone in saliva will be discussed

based on the following predictions: 1. Watching a sexually explicit video will lead to an increase in salivary testosterone concentrations. 2. Individuals who watched the sexually explicit video will be more likely to dehumanize the female in the second video, by ascribing her less uniquely-human characteristics. 3. The relationship between viewing a sexually explicit video and dehumanization will be mediated by changes in testosterone concentrations.

MCWILLIAMS, Brenna

"Spatial Localization of Targets with the Eyes Open, Eyes Closed, and Blindfolded"

The impact of different visual conditions and changes in the distance or height of a target on the accuracy of memory-guided positioning movements was examined. Participants performed target relocations under 3 visual conditions; blindfolded with eyes open, eyes closed, and eyes open. Individuals were expected to be much more accurate in the eyes closed versus the blindfolded with eyes open condition because closing one's eyes presents a signal to the neural system that visual information will be unavailable. However, under the blindfolded eyes open condition, the sensory motor system attempts to use the occluded visual feedback that is diverting when attempting to make relocations. Student-participants from Nipissing University (ages 18-30) who exhibited normal or corrected-to-normal vision with self-reported right hand dominance were recruited. Four target positions were located on an aiming board and were placed at distances of 10cm or 30 cm from a home position at heights of 10cm or 20cm. On each attempt, participants found the top of a dowel and returned to a home position. The dowel was then removed and participants were asked to re-locate the former position. When they arrived at the predicted location, participants pushed a switch that was held in their non-dominant hand. The switch triggered a 3-D optoelectronic recording of the position. The results will be discussed in the context of the multiple processes model of visual control of aiming movements. The outcome has implications for designing movement rehabilitation techniques for people who are gradually losing their vision.

MILLER, Cole

"Norenzayan's *Big Gods:* A Response"

Stories are an important aspect of our social interactions, allowing us to explain concepts and events to those we are communicating with. Stories can be used in an attempt to explain a certain phenomenon or situation, as well as communicating ideas and theories. In his book *Big Gods*, Ara Norenzayn delivers a narrative in order to propose his theory of how, what he calls Big Gods have developed and spread, creating the large scale religions that are known today. Even though Norenzayan's proposed narrative is based on historical, sociological, and psychological facts it is faulty in many aspects. In order to create this story of Big Gods, Norenzayan takes many liberties with the information that he is using. With each stage in the story, he uses very specific aspects of the evidence in order to support his narrative. In addition to the problems with the evidence that Norenzayan gives, there are also faults with the very attempt at explaining religion in a naturalistic context. This panel discusses how this attempt has very basic logical errors that dismantle Norenzayan's argument.

MORRISON, Sabrina

"*The New York Times* and the Cambodian Insurgency"

On January 1, 1975 the Communist Party of Kampuchea (Cambodia) launched an attack on Phnom Penh, Cambodia's capital city, which resulted in them taking control of the country until 1979. The main question I will answer is whether the newspaper articles printed between January 1 and April 17, 1975, more focused on the social concerns in Cambodia or how the Cambodian social concerns affected the Unite States. In my paper I want to begin by putting Cambodia in context: What has been happening there for the 30 years leading up to the conflict? How did differing ideas of nationalism cause turmoil within the country? Bigger newspapers such as *The New York Times* had foreign correspondents in Cambodia and had their own perspective on what America should do based on the information and facts they were provided with. They would publish articles discussing social and political issues. I look

specifically at the newspapers from January 1, 1975, to April 17, 1975. In what ways did U.S. Newspapers present the Cambodian Civil War during this time? What types of words and images were they using? Were they able to affect public opinion? And finally, what can these newspapers tell us about Cambodia and U.S. public opinion? I will assess the newspapers and how they changed from January to April. The articles went from being predominately concerned for Cambodia to being concerned about the repercussions of their loss back in the United States.

MYLES, Grace

"The Journey to Nowhere in Nadine Gordimer's "What Were You Dreaming?""

Nadine Gordimer is a South African writer whose writing touches on aspects of the apartheid era and its aftermath. "What Were You Dreaming?" is a story that takes place in the beginnings of South Africa's healing post-apartheid and describes a car journey shared by a coloured hitchhiker, a white woman and an Englishman. Through the narrative point of view of the coloured man, as well as the Englishman, this story touches on the struggles and politics shared by all races due to apartheid. Together, the characters have the potential to journey, literally within the car, and figuratively, towards understanding, acceptance and empathy however, their quest is unsuccessful. Gordimer's short story suggests, by the characters' lack of destination, that perhaps they, and South Africa as a whole, are not yet ready to begin the transformation of their core selves, because they have not really accepted the idea that change needs to happen. This idea is also complicated throughout the story by the dynamics of power and knowledge. Susan Pearsall suggests, "Gordimer's name for apartheid-era South Africa, which she envisioned not as a war zone but as a static space between two decisive orders of existence" (95), which is significant to the fact that the characters in the novel remain trapped in this "static space" between the decisive order of apartheid South Africa, and their potential destination of enlightenment. Gordimer's short story portrays the idea that, although it is difficult and uncomfortable, one must be able to act and move beyond this stagnant space in order to begin change.

NGUYEN, An

""All Men are Created Equal": Northern Justification of Slavery in the Founding Era"

Few words are as well remembered in American history as these most famous lines from the Declaration of Independence: "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness." Many scholars have condemned the hypocrisy of the southern slaveholder, Thomas Jefferson, who penned these words, but few have explored how Northerners in the Founding Era aided and abetted the slave system. Too often historians have allowed the North-South divide of Civil War historiography to shape their perception of the late 1700s. At the time Jefferson penned the Declaration, one quarter of the population was enslaved. While spouting the rhetoric of liberty and equality, Americans from both Northern and Southern colonies alike upheld the institution of slavery. It is in some ways easier for us to understand Southerners' support of slavery, but this is largely because the abolition debate had a strong (though not exclusive) North-South divide. Yet at the First Continental Congress, Northerners and Southerners alike voted against abolition and skirted the issue of slavery when they could. For a variety of reasons, Northerners also wished to continue the practice of slavery. This paper seeks to understand the Northern perspective in slavery in the Founding Era. How did Northerners, who did not have plantations requiring slave labour, justify the continued existence of slavery while also using the revolutionary rhetoric of liberty and equality? Why did they refuse to denounce slavery? Was this move intended only to ensure Southern support for the Union, or did Northerners have their own ulterior motives for supporting slavery?

OLMSTEAD, Nathan

"Martyrdom & Community"

Martyrdom is unique in that, even though it is a very individualized event, its causes and ramifications can also be incredibly social. More specifically, martyrdom in the Middle East can be thought of as both an individual and communal response to Western influence. In this paper, I ask what kinds of social and political mechanisms make martyrdom appealing to militarized Islamic groups in the Middle East. Using work by Edward Said and Paul Kahn, I conduct a phenomenological analysis of martyrdom and conclude that martyrdom accomplishes two significant things. First, it is the triumph of a discourse that strengthens the authority of a non-Western community. Whereas the West may label a particular death an act of terrorism, the label of martyrdom allows Islamic groups to reclaim an individual death as being a part of their larger cause. Secondly, by turning to Said's definition of Orientalism as a practice which has limited the individuality and subjectivity of Muslims in the Middle East, I define martyrdom as an individual act of resistance against the influence of the West. Through martyrdom, the individual is able to reclaim and dedicate their death to a non-Western community. This research paper argues that martyrdom, as an act which reasserts individual subjectivity and confirms the sovereignty of a particular Islam, connects the martyr to a more communal resistance against an expanding Western polis.

OLMSTEAD, Nathan

"The Effects of Competition, Victory, and Exercise on Testosterone Concentrations"

Testosterone is a hormone which has been linked to aggression and competitive behaviour in human and animal studies. The current experiment examined the effects of competition, victory, and physical exercise on testosterone reactivity in young males ages 18-35. Seventy-two students from Nipissing University and Canadore College were recruited to participate in one of three experimental conditions centring around the punching of a force plate designed to measure strength: competition & punch, no-competition & punch, and no-competition & no punch. For those in the competitive condition, punching the force plate took place in the context of intra-sex competition. Preliminary results indicate that while participants in the non-competitive condition experienced a significant increase in T concentrations, those in the competitive condition did not. However, these participants also had higher levels of testosterone prior to punching the force plate. I attribute these findings to anticipatory effects, whereby the prospect of future competition caused a rise in testosterone prior to actually engaging in physical activity.

OSTER, Bradley

"Identifying Sedimentary Phosphorus Sources in Wistiwasing Lake and Callander Bay"

Algal blooms are becoming more frequent in headwater watersheds of the Great Lakes. Phosphorus (P) is a main contributor to algal growth in fresh water lakes (Schindler et al., 2008). This research, focusing on Callander Bay on Lake Nipissing and upstream Wasi Lake, examines spatial differences of sedimentary phosphorus availability in order to attempt to identify sources of internal nutrient loading. Cores were taken in late September and early October of 2015 from spatially significant sites throughout the lakes with the upper 5cm of sediment analyzed for iron (Fe)-bound, aluminum (Al)-bound, and total P (TP) following a sequential extraction methodology similar to Nürnberg (1988). The results on Callander Bay showed an average of 0.042, 0.039, and 4.192 mg/g of P for Fe-bound, Al-bound, and TP respectively. Wasi Lake had higher averages of 0.076, 0.055, and 5.595 mg/g of P for Fe-bound, Al-bound, and TP respectively. Average dissolved oxygen levels of 6.48 mg/L at Callander Bay and 6.27 mg/L at Wasi Lake during sediment collection are above anoxic conditions. Seasonal buoy data showed anoxia prior to sediment collection from Callander Bay, however there was no dissolved oxygen data from Wasi Lake. Identifying sources of P can assist in focusing efforts to eliminate or reduce inputs and potentially the occurrence of algal blooms.

PARCHER, Lauren

"Neoliberal Ideals of Teenage Female Sexuality"

The Parent Action on Drugs (PAD) is an "empowerment" program created in 1983 in Toronto, Ontario. The group was created for parents regarding their teenagers' alcohol and drug use. As an extension of the Canadian Government's Ministry of Health, PAD aims to "provide innovative, evidence-based programs and resources for youth, families, and community members concerning issues that impact substance use and youth." Through a discourse analysis I argue that their resource, Taking Charge: Young Women, Alcohol and Sexual Assault Toolkit, exercises neoliberal ideals of femininity through its regulation of teenage girls' sexualities and substance use as the causes and solutions to sexual violence. Taking Charge promotes the neoliberal sexual subject as a female who practices "proper" social sexual agency, meaning she fits into the virgin framework within the "slut-virgin continuum." The construction of the neoliberal sexual subject in Taking Charge focuses on individual conduct while erasing class, racial, and gender systemic inequalities that create a context for sexual violence. Scholars such as Laina Bey-Cheng (2015), Fiona Attwood (2007), and Marnina Gonick, (2015) have contributed to my breakdown of Taking Charge's promotion of neoliberal ideals of female sexuality. Attwood's (2007) research defines the term 'slut' and how it regulates female sexual agency, "a widespread term of abuse for women who did not 'accept the double standards of society.'" Using slut discourses of female sexuality; I will argue Taking Charge measures teenage girls on Bey-Cheng's (2015) agency line. Taking Charge measures girls amongst two sexuality narratives, "the slut-virgin continuum," through promoting neoliberal ideals of self-responsibility and individualism within substance use and sexual violence.

PATTERSON, Eric

"German Reunification"

In this history research paper, I answer the question: 'with the exception of the Second World War, what was the most important event in shaping modern Europe from the period after the First World War to the early 1990s?' The event that I chose to research and write about was the reunification of Germany, which occurred on October 3rd, 1991. This was the most significant event in shaping Europe for several reasons. First, it signalled the end of the Cold War and coincided with the fall of the Soviet Union, as well as the release of the Eastern Bloc States from Soviet domination. Secondly, it was a symbol of unification which led to the creation of the European Union and the elaborate cooperation witnessed in Europe today. Thirdly, it allowed for Germany to return to the top of the European economy, thereby assisting fellow European nations by bolstering their economies and the economies of Europe as a whole. If not for the reunification of Germany in 1991, Europe would look very different today. This paper outlines the history of German division and reunification in the twentieth century. It also details the history of the European Coal and Steel Community and how, through German domestic and foreign policies, it evolved into the European Union. The peace and economic cooperation that has become the standard in modern Europe, particularly among members of the European Union, would likely not be a reality if not for the reunification of Germany.

PAUL, Emily

"Women and Warfare in Ancient Greece: Perception & Portrayal Versus Reality, and Why this Divide Exists"

In ancient Greek society females were regarded as inherently weak and suited only for the domestic sphere of life indoors. The idea of women participating in any significant way to warfare, which occurred in the male-domain of the outdoors, was preposterous to ancient scholars. The belief that females were not suited to warfare, and therefore likely never participated in it, coloured both ancient and modern scholarship on warfare in antiquity. Indeed, ancient sources which do include accounts of female warriors are often inconceivably fearsome and overall unrealistic. However, the gender dichotomy, which in its ideal excluded females from contributing to warfare, was also unrealistic. Many ancient sources recorded, perhaps inadvertently at times, the very real roles women played in ancient warfare. An examination of

predominately ancient Greek sources proves that not only did women wage war, but also common and elite women could, and did, engage in war efforts. Furthermore, this examination leads to intriguing conclusions about how ancient Greek society functioned, perceived gender, and regarded sexuality.

PINTO, Talisa; **OSBOURNE**, Nichole; and **SANDILA** Manjot
"Integrating Strengths Based Care within Point of Care Environments"

The integration of strengths-based nursing (SBN) theoretical perspective within our nursing curriculum at Nipissing University's Nursing Scholar Practitioner Program provides novel strategies in approaching clinical situations. SBN integrates and expands upon key nursing themes such as creating nurse-client therapeutic relationships and the provision of holistic care; thus facilitates discourse among students on how to implement SBN strategies early in practice and consistently throughout their careers. Consequently, it helps students create a web of resources that can be applied in nursing practice. Additionally, SBN encourages students to use a systems-based thinking approach to optimize healthcare outcomes by encouraging awareness of broader factors within the clinical environment. Implementing SBN throughout nursing practice supports taking a proactive, rather than a reactive, stance to problem solving. In practicum, we have seen how SBN can be used as a theoretical perspective to better understand conflicting moral dimensions. Using a narrative inquiry lens, our presentation will analyze three experiences within the point of care setting that highlight the value of SBN in nursing practice. The SBN theory was used to guide discussion in the following cases: (a) a client's persistent request to obtain the clinicians' personal opinion, (b) NG placement for an older patient living with the experience of memory loss, and (c) minimizing the use of physical and chemical restraints within a psychiatric unit. The major SBN values addressed were 'self-determination', 'collaborative partnership', 'uniqueness', and 'person and environment are integral'.

REIMER, Brandon

"Cognitive and Neural Effects of Binge Drinking"

Binge drinking has become nearly ubiquitous in young adulthood and adolescence. While much is known about the negative physical consequences of this behaviour, only recently have researchers begun to analyze the cognitive and neural effects of binge drinking. Through a review of recent empirical findings, the damaging effects of binge drinking on the brain and cognition will be reviewed in this study. A multitude of negative outcomes have been linked to binge drinking, and of particular interest and urgency is the finding that higher alcohol consumption has been shown to reduce white and grey matter volume in both hemispheres. This suggests that aggressive binge drinking can be deleterious to a broad array of cognitive processes. Research supporting this effect shows that participants who binge drink display slower cognitive processing speeds and less intense neural activations, suggesting that binge drinking weakens brain activity. Further evidence for a general weakening of the brain is also shown in studies highlighting that neural plasticity is impaired by binge drinking. This would reduce the adaptive capabilities of the brain, once again leading to less efficient functioning. Adolescence is a time of critical cognitive development. As a result, the effects of binge drinking on teens is of utmost importance. As opposed to simply stunting cognitive development, evidence supports the degradation of adolescent cognitive and neural functioning through binge drinking. Loss of inhibitory control due to binge drinking has also been shown in adolescents, and abnormal brain activity in spatial working memory.

REGAN, Amanda

""The Race of Men has Failed": Hobbits and Men in *The Lord of the Rings*"

J.R.R Tolkien's *The Lord of the Rings*, as well as Peter Jackson's subsequent film adaptations, have inspired generations of readers with the heroic feats of Hobbits and Men that appear to foreshadow the perseverance of mankind through the troubling and war-riddled times of our society. However, through close-reading and textual analysis, a less optimistic perspective of the endurance of mankind is revealed. In a world that contains Men, the predecessors to our current society, it is not a man that prevails and destroys the Ring, but rather another species entirely, Hobbits. Perhaps then, Men were not, and are not,

capable of wielding such power, and thus Tolkien delegates this responsibility to a species, that, while embodying many of mankind's strengths, possess none of Men's weaknesses. By doing so, Tolkien seeks to prevent readers from mistakenly believing that they are capable of selfless feats. This pessimistic portrayal of humanity is both complicated and endorsed by the inclusion of Aragorn, the second hero of the novel, and arguably the only man that ought to be capable of carrying the Ring. Nonetheless, he is not the Ring bearer, thus he embodies both the potential and inherent flaws of mankind that Tolkien espouses in the wake of the century's devastation and despair.

REPO, Erik

"Optical Dissector Stereology"

Quantifying synapses and neuronal cell bodies is typically performed using stereology and electron microscopy (EM). One important limitation is that EM analysis is very time consuming and allows for only small volumes of tissue to be analyzed. Through the use of confocal microscopy and imaging pre and post synaptic proteins with fluorescent antibodies, larger volumes of tissue can be analyzed by counting the co-localizations of these proteins. This confocal methodology, however, only allows for the quantification of synapses, not cell bodies. In this way it is inferior, unlike EM stereology. The purpose of this study was to obtain cell count along with a synaptic count from brain slices using confocal laser microscopy by tagging pre and post synaptic vesicles along with staining cell nuclei with DAPI to quantify cells and synapses. This approach yielded a cell synapse ratio using confocal laser microscopy.

RIEDKE, Lindsey

"The Sexual Assault of Jewish Women in the Third Reich"

I will be researching the sexual assault of Jewish women in the Third Reich. Some of the research questions I will be focusing on are include examining why Jewish women were sexually assaulted in the Third Reich, as well as how Jewish women were sexually assaulted in the Third Reich. In order to make my argument, I will be using the traditional historical methodologies, such as analyzing textual primary and secondary sources, such as books and essays. I will also look into conducting a gender analysis in regards to sexual assault in order to better understand and explain the relationship between the male perpetrator and the female victim. This gender analysis will assist me specifically with understanding why Jewish women were sexually assaulted in the Third Reich.

ROBERTS, Charles

"Social Media as a Tool for Radicalization"

What effects do the Internet and social media communities have on the recent increase of domestic terrorism? In his paper on terrorism and the "virtual communities of hate", Jerald Post discusses how common social psychology concepts, such as group think and the development of a collective identity, can allow people to lose their individual identity and lead to drastic changes in their behaviour (Post, 2015). Post gives specific examples of how the Internet has moderated radicalization, such as twenty emails that were sent between mass shooter Major Nidal Hasan and the highly respected radical Muslim al-Awlaki, who encouraged Hasan to commit this act of terror. These emails demonstrated that Hasan felt lonely, isolated, and marginalized by Western society, and that al-Awlaki offered him a sense of belonging, competency, and autonomy. He also notes that in 2006, there were about 7,000 radical Islamic websites on the Internet (Weimann, 2006). Group think and collective identity have become even more powerful on the Internet since it allows for high accessibility to information, efficient networking, and most importantly an anonymous identity. Anonymity is crucial to radicalization, as even a very mild and shy person in real life can become very aggressive online. This is associated with the online phenomenon of oversimplification and polarizing general categories. That is to say, while online, people tend to generalize their opinion to its simplest and most extreme form, as this makes it easier to adhere to and convey in an anonymous social setting. A study conducted by Teo Keipi gave 258 high school students a completely anonymous written task and asked them questions about their use of the Internet and their

view of how anonymity affects interaction online. The written tasks, which were on average 100 words or more, conveyed that many students felt the Internet was good for identity development because it was socially freeing. Many felt that the socially freeing nature afforded by anonymity enhanced expressive needs, but also reduced accountability, lowering civility among communication. They also found that interactions were reported as being more positive when the goals of the participants were mutual, for example market transactions. With the importance of the Internet in modern times on identity development, does the socially freeing nature and the high accessibility of both uncensored information and communication -good and bad- pose a risk for developing malicious thoughts and behaviour in youth? And in turn, can this partially account for the currently high incidence of domestic terrorism? In this presentation, I will discuss how and why young people socialize on the Internet with a specific focus on "interaction risks" and examining "virtual communities of hate", such as fans of school shootings. Finally, I will show actual examples of terrorists who originally became radicalized over the Internet, and how this radicalization could be possible through social psychology principles strongly moderated by the Internet.

ROOT, Zach

"Social Identity and Neuroendocrine Response in Combative Sports Athletes"

Neuroendocrine concentrations change rapidly in the context of athletic competition (Kivlighan et al., 2005). Also, simply watching one's team compete has similar effects (van Der Meij et al., 2012). Despite these findings, there remains widespread variation in hormone responses to competitive interactions. One potential factor that may underlie such variability is an athlete's social identity - identity formed through membership on a team. The purpose of this study was to examine the relationship between social identity and hormone responses in male combative sports athletes' watching video footage of their teammate competing (win/loss). Male combative sport athletes (N=36, Mage = 30.4, SD=11.0) completed a questionnaire assessing three dimensions of social identity (ingroup ties, cognitive centrality, ingroup affect). Participants provided saliva samples before and after watching video footage of teammates competing. Multiple regression analysis indicated that perceptions of cognitive centrality moderated the relationship between competition outcome and testosterone response, $F(1,22)=4.79$, $p=.04$.. Simple slopes analyses revealed that athletes who identified strongly with their team and teammates had an increase in testosterone when watching a teammate win, and a decrease in testosterone when watching a teammate lose. However, the opposite pattern of neuroendocrine response was observed in athletes who had low identification with their team. Specifically, a decrease in testosterone was observed when watching a teammate win, and an increase in testosterone was observed when watching a teammate lose. These findings indicate that social identity may play a salient role in moderating one's testosterone response when watching their teammates in a competitive performance.

RUDDICK, Erika

"Psychological and Hormonal Mechanisms Underlying Aggression in Young Women"

The current experiment examined psychological and hormonal mechanisms linking females' first impressions of other females (i.e., the mental representations of individuals that are formed upon first meeting another individual) and subsequent intra-sexual aggression. Specifically, I examined the association between first impressions, hormonal fluctuations (e.g., testosterone, estradiol), dehumanization (i.e., assignment of fewer uniquely human traits), and aggressive behaviour. One hundred and twenty female Nipissing University students between the ages of 18-35 were randomly assigned to one of two experimental conditions in a between subjects design: one in which they were exposed to a "sexy-dressed" female, or one in which they were exposed to a conservatively dressed female. I predict that 1) Participants who are exposed to the sexy-dressed female confederate (rather than the conservatively dressed female) will demonstrate a rise in testosterone and/or estradiol followicng the exposure, will be more likely to dehumanize the female confederate, and will be more aggressive towards the female confederate. Also, I predict that increased aggression toward the "sexy dressed" female will be mediated by a psychological process of dehumanization and/or by acute increases in testosterone (or estradiol).

SINGHE, Tsering

"Analysis of Northern Environmental Time Series via Interactive Visual Analytics"

Visual analytics (VA) offers support for large-scale data analysis by utilizing people's natural pattern recognition capabilities. The current research adds VA enhancements to web based GIS frameworks that support environmental monitoring and northern agricultural producers. Nipissing University and community collaborators have developed web-based systems to aid agricultural decision support in Northern Ontario (GeoVisage), and to disseminate Lake Nipissing environmental monitoring data to the general public. Two alternative views were added to the existing systems to supplement the main plots: the windowed cross correlation (WCC) and a multi-resolution view. The WCC is the correlation of two time series in time intervals of user-selected length; the resulting matrix of correlations is displayed as a coloured heat map. This allows the visualization of changes in correlations over time and shows patterns that, when using standard correlation, may be undetected by the user. The multi-resolution view displays the time series at multiple scales with the ability to pan in and out from different time scales in a single image similar to zooming into a city map to find local street coordinates. Through VA, researchers and agricultural producers can gain insight and a greater understanding of Lake Nipissing and the microclimate in agricultural regions.

SPLANE, Justine

"Understanding Failure: Examining Naomi and Piquette in *Lives of Girls and Women* and *A Bird in the House*"

Both Alice Munro's *Lives of Girls and Women* and Margaret Laurence's *A Bird in the House* project a sense of anxiety towards marriage and motherhood as a cause of stagnation in the lives of girls and women. These women slip into a state of stagnation as their lifestyle proves unable to provide them with a sense of fulfilment. However both texts maintain the hope that escape is possible through the medium of art. This hope is shown through the lives of the texts' protagonists, as it is strongly implied in both texts that the protagonists are the writers of their own stories. Generally, it is the protagonists Del and Vanessa who are analyzed in order to better understand how they succeed in liberating themselves from this negative cycle and finding fulfillment as artists. However, this essay seeks to better understand the female Künstlerroman not from analyzing how Del and Vanessa succeed, but in how their foils, Naomi and Piquette, fail. By understanding what characteristics led to Naomi and Piquette's failure to find sustainable fulfilment, one can better understand what characteristics in Del and Vanessa allowed them to succeed.

STEADMAN, Victoria; **GRAY,** Camille; **GODIN**, Chenoa, and Dr. Darren Campbell

"Cognitive Performance in Drug Users: Long-Term Effects of Marijuana use on Stroop Performance"

Long-term cannabis use is associated with select cognitive impairments including inhibitory deficits. However, standard Stroop measures of inhibitory function do not show these marijuana-related deficits. Using a modified Stroop with marijuana-specific words, this study investigated long-term marijuana use on inhibition and attentional bias. We predicted that cannabis users would show increased reaction times and lower response accuracy. This study consisted of 12 male cannabis users and 9 male non-users. The average duration of THC use was 3.9 years (SD= 2.0) and a mean of 2.0 grams (SD= 2.0) consumed per week. A list of both neutral and cannabis-related words were printed in 4 different colours. In the first condition, participants were instructed to name the colour of the word and in the second condition, they named the word itself. The outcome measures were the number of naming errors produced and the total time taken. Marijuana users made more colour-naming errors (M = 5.92, SD = 3.09) than non-users (M = 3.78, SD = 1.92). We also found that with higher levels of marijuana use, male marijuana users made fewer marijuana-specific naming errors. Our results contrasted with previous Stroop findings. Our research shows preliminary support for stroop-related alterations associated with long-term marijuana

use. It is also noteworthy that higher levels of marijuana use were associated with fewer marijuana-related word naming errors. This contrasts with previous evidence. Future studies should include a larger sample size, an objective measure for responses, and a more varied distribution in word presentation.

STEELE, Deagan

"European Enlightenment in the American Revolution"

By the time of the American Revolution, more than a century and half had passed since the establishment of the first successful British colony. Since the colonies were largely focused on resource extraction, the new United States lacked many of the established intellectual institutions like universities and parlours that were present in the European mother countries. American thinkers borrowed heavily from European philosophy, and so it would seem that the intellectual aspect of the Revolution was outsourced to other countries. With the Glorious Revolution happening almost a century prior, and much of the work of the philosophes having already taken place, which European authors and philosophers shaped the rhetoric of the American Revolution? Historians have argued for the centrality of Lockean natural rights philosophy since the 1950s. The Republican Synthesis complicated our understanding of the intellectual history of the Revolution, but ultimately did not bring much clarity. The perennial popularity of the Founding Era, and the rise of popular "founder's chic" histories, has often meant a reversion to the simpler Lockean narrative. This paper will explore the Americanization of European ideas. Who were the favourite and most influential philosophers of the era? How much did American patriots take away from their favourite philosophers? How and why were certain aspects of European thinking applied to the colonial and early national context?

TABERT, Jessica; **BENSON**, Kathryn; **BENOIT**, Brenden; and **HOLLAND**, Andrew

"iLEAD Jamaica: Eco-Tourism in Jamaica"

As part of the iLEAD special project, we traveled to Jamaica where we worked firsthand with employees of a local business. Fern Forest Eco Village is an up and coming eco-tourism resort located in the Great Fern Forest near Ocho Rios, Jamaica. Our goal was to set short and long term objectives for earning profit while also being sustainable. While in Jamaica, we had the opportunity to do fieldwork that consisted of observing the property and from that point, revising our original plan and making recommendations.

TAULU, Jasmine

"Mapping Sources of Waters to Urban Streamflow During Summer Baseflow Conditions Using a Stable Water Isotope Survey: the Chippewa Creek Case Study"

The research objective was to investigate sources of water to an urban stream and how these contributing sources vary in space by using stable water isotopes. A survey of Chippewa Creek was conducted in late August when dry antecedent moisture conditions were present to capture low baseflow conditions, which best demonstrate the mixing of water sources. Chippewa Creek, the largest drainage basin in the city of North Bay, Ontario, had never been surveyed for stable water isotopes. This had left a gap in the literature, since water isotopes provide additional information on pathways taken by water, thus aiding our understand of water quality. On August 31st, 30 surface water samples were collected along Chippewa Creek from the headwaters to outflow into Lake Nipissing. Samples were also collected from tributaries, lakes and wetlands flowing into the main stream. Groundwater sampled 1.7 km NW from the base of the system was used to determine the expected isotopic range of ground water values. Water temperature and specific conductivity were additional water quality parameters recorded during the survey. Results show that sources of water in Chippewa Creek are a mix of groundwater and water from small surface water bodies. Proportions of these two sources vary depending on location, but most locations have a larger proportion of groundwater than surface water. This presentation identifies sources to surface water within the Chippewa Creek catchment and discusses controlling variables, such as

quaternary geology, soils, elevation, and urban features; thereby leading to the observed isotopic values of surface water.

TIMSON, Mitchell

"Virtual Vimy Ridge"

A virtual exhibit commemorating the 100th anniversary of the Battle of Vimy Ridge is being developed by Nipissing University in collaboration with the Military Communications and Electronics Museum in Kingston. It is an interdisciplinary project intended to disseminate knowledge to the general public and represents a contribution to digital humanities research. The museum has provided various documents regarding the battle; including trench maps, maps of the plan of attack, and photographs taken of the area near the time of the battle. Each item is integrated into an interactive system in a way that is appropriate to the content. The maps were provided in digital format and are available to be displayed on the globe as a layer over the area which they reference. The objectives described by the map of the plan of attack are visualized as a front line that can be animated by interacting with a timeline. Others, such as photographs, can be viewed by selecting a model placed on the globe at a related geographic location. The development framework includes an interactive globe with various types of visualization capabilities. Integration of the described items was explicitly programmed into the framework. An important goal of this project is to integrate all the above items into a system that will be simple and intuitive for the target users that is visually captivating. Combining these principles of human-computer interaction with digital humanities makes it possible to present historical knowledge to the public in a way that is engaging and realistic.

VIDETO, Amber

"Does Self-Construal Moderate the Effect of Exogenous Testosterone on Human Aggression?"

The current research examined the relationship between testosterone and aggression. I furthered my research by examining whether self-construal would moderate the effect of testosterone and aggression. Based on previous correlational work, I predicted that testosterone would increase aggression but only if the individual was relatively high in independent self-construal. One hundred and twenty male participants were randomly assigned, in a double blind, counter-balanced procedure, to receive placebo or 150 mg Androgel®. Participants performed the Point Subtraction Aggression Paradigm, a well-validated behavioural measure of reactive aggression. Blood samples were taken upon arrival, and several time points after drug application. Results indicated a substantial increase in testosterone concentrations within 60 mins of Androgel®, but not after placebo. Those who received Androgel® were shown to be more aggressive then those who received placebo, however, this difference failed to reach significance. In contrast to correlational work, self-construal did not moderate the effect of testosterone on aggressive behaviour. Nevertheless, exploratory post-hoc analyses suggest that the effect of testosterone on aggressive behaviour (average aggression and attack latency) tends to be stronger among men with relatively independent self-construals.

WHITE, Mary

"Conceptualizing Sexual Consent"

Sexual assault and rape are often spoken of in terms of the lack of consent to sexual activity without conceptualizing consent itself (Beres 2014). The ambiguity around definitions of consent, specifically in relation to sexual activity that is engaged in while under the influence of drugs and/or alcohol, is an area that is under researched, yet is essential to understanding sexual violence. I argue that a definition of sexual consent that encompasses the verbal and non-verbal components of consent, or lack thereof, is necessary for a sexual violence prevention campaign to be successful. I further argue that simply saying one cannot consent to sexual activities while under the influence of alcohol is not conducive to addressing sexual assault on college and university campuses where many students engage in sexual activities while they are under the influence of alcohol. My research includes a textual analysis of the Nipissing University

#nuperspective campaign's brochure and launch video with emphasis on how consent is defined in each text. The research I have explored is mainly within the framework of navigating sexual consent within casual sexual encounters. I therefore draw upon sex-positive feminist theories to inform my research.

WILSON, Imogen

"The Jewish Museum: Challenging Perceptions of History and Spectatorship"

After visiting the Jewish Museum in Berlin this prior spring, the curation and construction of the space, as well as its themes and conceptual notions has played a large part in my research this year. In this project, I hope to analyze architectural and visual choices made within the Jewish Museum and how these choices affected the way audiences' analyzed contemporary space. Also, I would like to focus on the ways in which contemporary art interacts with history. Do these experimental spaces help us to understand the past, or are these futuristic landscapes separating us from it?