FORWARD FROM THE VICE PRESIDENT, ACADEMICS & UNIVERSITY AFFAIRS

On behalf of the Scarborough Campus Students' Union, I wanted to create a platform for undergraduate students to showcase their hard work and exceptional contributions to academic excellence. Amidst a pandemic, we saw incredible initiatives arise in all aspects of our lives -- from racial equity to innovative technology, creativity exploded across the globe and students at the University of Toronto Scarborough set a precedent for how we can move forward to shape the future.

At the beginning of this pandemic, we mourned the loss of many things. Our experiences changed our perspective on many parts of the world we know today. In the midst of creating a new world, we lost many aspects of our cultures that brought communities together, including moments where we were able to celebrate. With this journal, my aim is to allow our community to celebrate each and every accomplishment. With a new cohort of young leaders taking the world by storm, we have seen many students at the forefront of our innovation and research as we navigate the new world we have become entrenched in. We know that the effects of this pandemic will not be felt only for the year ahead, but will shape the trajectory of our foreseeable future. The lessons that we have learned as individuals and as a collective are integral to how we create a new world that serves not only those in power, but all humans across the globe.

We are at a pivotal juncture where our future leaders, our current students, will be driving ahead to shape our new world. As such, each undergraduate student’s scholarship is vital to understanding how our world operates and will look in the future. Students from all disciplines, at all levels of experience, with a vast array of knowledge, came together to shape this year’s Undergraduate Research Symposium. While our 5th Annual Symposium was forced to take a virtual approach, this conference engaged record numbers of students across UTSC and introduced new methods of showcasing research and gave a platform for students to be recognized for their contributions to academia.

As we move forward in our recovery from the events of the last fifteen months, we look to new and emerging methods of exploring our world. We look to new ideas, new ways of thinking, and innovation that our ancestors could only dream of. The Scarborough Students' Union hosts our annual Undergraduate Research Symposium to showcase and celebrate the ways our future leaders have learned to explore and innovate against all odds. As the outgoing Vice President of Academics and University Affairs, I can confidently say that our students have some of the most creative and resourceful ideas that we can all learn from. This journal is a celebration of their stories.

EQUITY MANDATE

As members of the Scarborough Campus Students’ Union, mutual respect, cooperation and understanding are our goals. We shall neither condone nor tolerate behaviour that undermines the dignity or self-esteem of any individual or creates an intimidating, hostile or offensive environment. It is our collective responsibility to create a space that is inclusive and welcomes discussion. Any form of discrimination and harassment will not be tolerated. Hate speech rooted in, but not limited to, anti-Muslim, anti-Semitic, sexist, racist, classist, ableist, homophobic, or transphobic sentiments and/or remarks will also not be tolerated. We all have an obligation to ensure that an open and inclusive space, free of hate is established. Any behaviour that does not demonstrate an understanding of these principles and/or creates an unsafe atmosphere will not be tolerated.

We can never work to end systematic and institutional violence if we do not center the narratives of indigenous folks in our collective decision making for social justice and equity. As settlers in Canada we directly benefit from the colonization and genocide of the indigenous people of this land. In order to engage in resistance and solidarity against the injustices inflicted on the indigenous people of this land it is imperative we constantly engage in acts of decolonization. We recognize that our work takes place on the Traditional Territory of the Haudenosaunee, the Mississaugas of the New Credit River and the Huron-Wendat. We believe that it is our collective responsibility to pay respects and honour the original caretakers of this land, any of those that may be with us physically, spiritually, mentally, or emotionally. We honour our commitments to each other and the land by creating space for Indigenous knowledge to be welcomed and celebrated.
ABOUT THE CONFERENCE

The Undergraduate Research Symposium serves as a platform for students to showcase their work to the broader UTSC community.

Our 5th Annual Symposium featured students from a variety of disciplines, introducing their research in racial equity, innovative technologies, social motivation, and how communities come together to overcome adversity in their respective microcosms.

We are living at the intersection of many crises that will change how we live forever. The pandemic is unearthing many of the inequities we knew to be present in our society and came when we were dealing with the extensional crisis of climate change. While the last year has brought a tremendous amount of pain, we have seen communities join together to keep each other safe. It is impossible to imagine a world that is not forever shaped by the last fifteen months’ events. We know that students are often at the forefront of social justice and innovation, meaning the work that students are doing now will shape our collective recovery.

solicit research papers for the 5th Annual Undergraduate Research Symposium. This symposium highlights our undergraduate community’s contributions to research and scholarship while offering undergraduates a platform to showcase their work. This year we will be offering participants a chance to win $1000. In addition to the prizes awarded to the top presenters, all students invited to present will receive an honorarium of $75. We are living at the intersection of many crises that will change how we live forever. The pandemic is unearthing many of the inequities we knew to be present in our society and came when we were dealing with the extensional crisis of climate change. While the last year has brought a tremendous amount of pain, we have seen communities join together to keep each other safe. It is impossible to imagine a world that is not forever shaped by the last thirteen months’ events. We know that students are often at the forefront of social justice and innovation, meaning the work you are doing now will shape our collective recovery.

PARTICIPANTS

Janvi Rautela
Aqsa Zahid
Mira Hennawy
Anujian Chandran
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Rajpreet Sidhu
Ali Javeed
Bhanvi Sachdeva
Alfonso Manalo
Omer Jamal, Ranie Ahmed & Kiran Nabi
Souvik Mukherjee
Janvi Rautela, a student fascinated by the knowledge around her. She hopes to empower others to initiate change. She seeks to understand more about the adversity faced by individuals, and make a positive change in their lives. She advocates for philanthropy, justice, and climate change. She wants to inspire youth to see their potential and encourage them to innovate.

Climate Change: A Catastrophic Turmoil We Can Fix By Adopting A Multidisciplinary Lens

Climate change, labeled the next big threat, is a global urgency. This meta analysis highlights the importance of disciplines banding together. Climate change needs to be addressed from a literary, mathematical, scientific, economic, political perspective. The paper considers how Covid-19 has negatively impacted climate change research. Initiatives have been unsuccessful due to the disparity between disciplines, lack of government subsidies and the hesitancy of corporations unwilling to switch to green energy. As suggested, climate change can only be minimized if organizations claim their corporate responsibility of prioritizing climate change, governments increase research funding, and researchers embrace an integrative approach, viewing each problem with a multifaceted point of view. Currently, it is difficult to incentivize third world countries to switch to a renewable approach, due to the large, premium price of green technology. This paper considers green technology that has been successful in reducing its expenditure, such as electric vehicles, and considers why the same model of reducing the cost to switch is not applicable to other industries, such as cement manufacturing. This paper reflects optimism about corrective actions necessary to minimize the large premium sum of switching to green technology. It emphasizes the critical determinants that will allow for execution of nonconventional assessments to mitigate climate change.

Green Tomorrow: necessary corrective actions
Explanations, solutions, and policies that will push for a renewable future and reduction in green premium costs.

Janvi (She/Her)

Dear colleagues, I am a 3rd-year undergraduate student fascinated by innovation in all fields. I have a particular interest in Artificial Intelligence and the global movement involving switching to renewable resources.

Synopsis of my research: Humans have inhabited earth not longer than a blink of an eye, but this does not seem to appear as the case if we analyze our impact. Through my research, I argue that climate change might just be the most significant global urgency. Currently, it is difficult to incentivize developing countries to switch to a renewable approach, due to the large, premium price of green technology. My meta-analysis considers the barriers that make switching to green energy difficult. It considers why previous policies have not produced the results they promised. The main reasons being an approach with narrow and stagnant models. A variety of solutions are proposed; the most critical of which is green technology. Governments are called to use an interdisciplinary approach to fund subsidies for conservationists, research, those affected by climate change, and environmental entrepreneurs. As well, they are recommended to host annual emission permit trading auctions and advertise the purchase of green bonds. Moreover, the paper suggests policies to control population growth and highlights critical areas of research that will help reach the vision of a sustainable future.

What is the big deal with climate change?

Infrastructure Impact
Hurricanes like Maria, in Puerto Rico set their country back nearly two decades (Gates, 2022)

Climate Impact
Due to climate change by 2050, we could see twice as many wildfires in California, in comparison to now (Gates, 2022)

Organisms Impacted
In just a couple years, climate change has the ability to eliminate 8% vertebrate, 18% insect and 16% plant species

Atmospheric Impact
Carbon dioxide emitted today can remain in the atmosphere for 10 thousand years (Gates, 2022)

Industrial Impact
Greenhouse emissions are upwards of ~ 51 billion tonnes/ annum (Gates, 2022)

Climate change is a by-product of multiple interactions. The primary cause is excess energy absorption from the sun, due to a heightened level of greenhouse gas (including methane, CO2, etc.) production. The earth balances the excess intake by expelling thermal radiation, only to be captured by greenhouse gases and further elevate temperatures (LAWN, 2018). One of the biggest mysteries faced by economists is how to sustain the country’s growth without exceeding its capped threshold (LAWN, 2018).

Since the country's control is managed by governments, my meta-analysis calls for strict and accountable action in legislative branches:

• Access to electricity is still a big problem. ~860 million have unsteady or no electricity at all
• Rich nations consume the most energy per person
• Most developed nations have slowed down their emission, however developing nations have had a rise in CO2 emission
• These developing nations and underdeveloped nations will be hardest hit, causing poverty rates and malnutrition to increase (one of many reasons is a decrease in crop yield)
• This impact may not be visually clear at first, as it is projected that by 2060, the negative impact will make many new buildings added that it will be as if a metropolitan city like New York City is built per month for nearly forty years

*All data on this slide is retrieved from: Gates, B. (2022). How to avoid a climate disaster: The solutions we have and the breakthroughs we need. Toronto: Vintage Canada.

Reasons for doubtfulness in climate action:
Climate change is challenging because while most can agree it is a far-reaching threat, the call to action is difficult. Environmentalists often ask if the future is in green energy, then why do not all corporations make the switch early on? The data indicates complications. The truth may be that at this moment, until at least the technology is not extremely proficient, the heavy investment for some firms may lead to a negative net revenue. A study conducted in Germany, Switzerland, and Austria found that a majority of companies with low energy usage suffered this net negative revenue, and such a result leads other firms to doubt the necessity of renewable sources (Stucki, 2019). Currently, for some sectors, green technology may not be sufficient in producing similar results to non-renewable energy. If results are lacking, then the eco-friendly switch will make firms less competitive. The data presented shows that mainly only companies that have large energy costs benefit from the switch (Stucki, 2019). However, what is critical to consider here is the long-term game, which is more beneficial for companies willing to pay the premium price now.

Green premium costs, price of switching to the renewable option (Gates, 2022)
Optimistic outlook: There is reason to be hopeful, indeed wind energy production has increased 7 times in the period from 2008 to 2018, and solar energy usage has been up to 60 times more (Fouquet, 2018). Additionally, many countries have plans to ban car sales that have combustion engines, by the 2030s (Fouquet, 2018). The urgency of climate change is critical because developing strong policies and understanding why some may be better than others will allow for corrective action. Fortunately, research has also been directed towards the economics of climate action. By 2003, two scientific articles were published on the topic annually, and between the period of 2015 to 2018, there has been an average of over 130 published every year (Fouquet, 2018). Additionally, it is proposed that if emission rates decrease by 4% annually, that is in the period starting from 2016 till 2050, they should be 75% less than their starting point (LAWN, 2018). A graph displaying the decrease in production costs of renewable sources (Climate Central 2019).

Problematic policies: Firstly, it is important to bring forth some unsuccessful policies and understand why the hypothesized model failed. In the Handbook on the Economics of Climate Change, authors deconstructed the myth that optimal taxing on carbon emissions should be proportionate to global GDP levels (Chichilnisky & Rezai, 2020). The aftereffects of climate change can be multiplicative, and elasticity assessments indicate that increasing tax according to GDP ratio triggers higher fossil fuel consumption (Chichilnisky & Rezai, 2020). In the same study, Chichilnisky and Rezai argue that integrated assessment models (IAMs), primarily used in policy construction, dismiss the crucial determinant: inequalities (Chichilnisky & Rezai, 2020). They argue that it is not enough to assign low-income nations low taxes, and vice versa for high-income nations, but rather access individual regions to address income disparities and local cost of renewable alternatives (Chichilnisky & Rezai, 2020). Lastly, it is argued that the reason for most policies to fail short is that they adopt a static model; this is flawed because there is a grand degree of variability and complexity in country X’s macroeconomic factors (Chichilnisky & Rezai, 2020). Reviewing these oversights allows us to understand (a) the peculiarity of not only each country’s case but that of regions within the country as well, (b) to build effective policies, the intertwined connection of multiple factors contributing to a country’s state must be minutely analyzed, and (c) information is flowing at an unprecedented, dynamic rate to affect a country’s stability (in terms of GDP and environmental habits), and so policies must be created to be adaptable.

Solutions: My meta-analysis invites governments to create an operative and efficient system to ensure economic growth does not surpass that which is the country’s capacity. Due to the variability in gas production and execution of policies of governing bodies, it is requested for a council unaffiliated with any countries to create and manage such objectives for each country. In the book The ecological economics of climate change, stress is placed upon the responsibility of governments to strictly monitor emission rates before they reach the cap, and also arrange for efficient annual trading auctions for emission permits, each of which would enable the emission of one tonne of the greenhouse gas (LAWN, 2018). Additionally, pressure is put on governments enforcing compliance by penalizing consequences and using their platform to highlight innovative technologies. This could be done by exhibitions and multimedia advertisements (LAWN, 2018), including info for buyers to understand how much emission is created by daily use products.

Solutions: Equally important, it is urged for governments to promote citizen contribution to green bonds because doing so will create market growth. Green bonds are ways in which customers can invest to support companies switching to green alternatives. The funding they provide allows companies to finance eco-friendly projects (Hyun, Park, & Tian, 2019). Problems lie in both the supply market, due to the excess cost of the green bonds, in comparison to others, and in the demand spectrum, due to the inconsistency in green bond standardization (Hyun, Park, & Tian, 2019). Regulating the system will allow for more stability in the market, as it is common for investors formerly interested in the green bond market to diverge to more currently hot topics, such as COVID-19 response bonds (Khadbai & McLellan, 2020). Essentially, information needs to be more widespread, and structure needs to be established.

Solutions: Another affirmative action governments must take is to increase subsidies and compensation, which often drive motives. As suggested in The ecological economics of climate change, farmers need to be effectively subsidized so that their yield by partaking in unsustainable practices is equal to or less than subsidies provided by the government (LAWN, 2018). Similar grants must be given to land-owners to sustain the preservation of forestry (LAWN, 2018). In such cases that governments can not provide these compensations, the money must be collected by high GDP nations. Additionally, policies to induce workers’ happiness and interest are critical, perhaps by encouraging workplace bonuses, as both are contributing factors to the progression of technological advancements (LAWN, 2018). One of the fundamental reasons for climate change to have reached its severity is due to population overgrowth. The abundance of people each with their own carbon footprint has led to an excess of waste and production, the byproducts of high-emission gas. Studies indicate that the population should be kept below 8 billion by 2100 (LAWN, 2018). In efforts to control population, countries must not only allow easy access to contraceptives but while a controversial view, can also suggest populations to have limited numbers of children, especially if not financially able. In The ecological economics of climate change such a policy is suggested whereby couples may have two children, and if they desire to have more a license must be purchased from the government administering the policy (LAWN, 2018). In writing, the policy seems very beneficial, not only will it contribute to a decrease in number of people in countries with a significantly high number of people, but it may also decrease poverty. The money gained by the fertility license market can then be used to fund free contraceptives for the public, such as condoms and birth control pills (LAWN, 2018). In implementations, some problems may arise, such as ethical and religious concerns. However, the policy needs to
be structured and amended in a way that is equitable and efficient in bringing the fertility rate down to the country’s carrying capacity.

Solutions: It is imperative to identify how climate change can affect specific sectors, such as agriculture, to assess mitigation tactics. Let us consider a study from a town, Ceres, in South Africa that explores ways in which South African farmers can minimize the effects of climate change to maximize their crop yield (Ogundeji, Jordaan, & Groenewald, 2017). Research findings indicate that a temperature rise diminishes water reserves, and triggers droughts. The suggested plan is structure management and quality control. Farmers need more efficient irrigation systems; a possible solution is building farm dams to induce the growth. The economics of renewable energy, by prosumers only being able to sell their electricity to suppliers, their market value and selling autonomy are limited (Fouquet, 2018). The article also highlights a key problem for why some investors may be wary of non-renewable energy sources: weather fluctuation (Fouquet, 2018). Research and development need to continuously be funded so technology can advance to the point that inconsistency in weather patterns do not dramatically alter supply, that is it needs to become so efficient as to store energy in mass, ex, the solar energy collected on particularly sunny days used during monsoon season. Effectiveness in long-lasting renewable energy storage can benefit all sectors. It is projected that by 2030 we might already have ships and airplanes meant for short travels powered by electricity (Khalili, Rantanen, Bogdanov, & Breyer, 2019). Supporting long-term travel with renewable sources is difficult due to the lack of advancement in the electric sector; the batteries currently do not have the capacity for ample storage and are insufficient to power heavy vehicles for extended durations (Khalili, Rantanen, Bogdanov, & Breyer, 2019).

Solutions: One obvious answer, as earlier stated, to increase efficiency, is research and developing technologies in which prominent fields must we give particular attention? To tackle the problems of tomorrow we must work towards strengthening algorithmic innovation. A crucial field to research in tackling climate change is artificial intelligence and its branch of machine learning. Already, our planet makes use of intricate algorithms to compute estimations about climate (Huntingford et al., 2019). Research has given way to the development of many resources, for instance, we now can monitor biomass above ground level through Artificial Neural Networks (ANN), methods to approximate production of crops by Gaussian Process (GP) Regression, etc (Huntingford et al., 2019). For instance, another study was able to utilize ANN to gather data from across 176 sites in the span of 25 years to evaluate wave energy and save both on time and costs of data processing (Rodriguez-Delgado & Bergillos, 2021). By curating machine learning applications, we can strengthen our data collection ability and grasp of trends. It may lead to the discovery of specific sequences within the numerical data that can predict disasters. One such application is if machine learning tools can be used to uncover connections, known as teleconnection, between various locations and times (through data analysis) then artificial intelligence can be used to accurately predict the magnitude of the weather threat (Huntingford et al., 2019). Another notable analysis technique is running repeated simulation tests to access the strength of policy before implementation (Balint et al., 2016). Thereby, through interpreting patterns in data unclear to the human eye, fields related to data processing, and artificial intelligence allow us to detect and understand the unknown. Researchers must continue to embrace algorithmic innovation.

Solutions: While the role of researchers uncovering new knowledge is extremely prominent, other sectors contributing to reducing climate change must not be undermined. Perhaps there would be less hesitancy in switching to green options in industries such as hospitality if positive data were more widely distributed. For instance, upward of 59% of consumers claim that ecologically friendly standards means hotels are an important influence in their decision to stay and revisit, examples include shuttle services, installation of solar water heaters, etc. (Kim, Han, & Kim, 2015). Another study found that societies with higher purchasing ability and more knowledge of climate change are willing to pay higher rent for housing that meets environmentally-friendly regulations (Balint et al., 2016). Essentially awareness of renewable energy takes precedence over the affordability of rent for customers who can pay the price (Balint et al., 2016). In solution, tenants should be informed of environmentally friendly practices adopted by their buildings, and such buildings that comply with these standards should be more readily advertised. Also, a study tracking eye movement, through the use of eye-tracking glasses, illustrated that retailers can have a big impact on consumers’ attention to environmental friendly products (Guyader, Ottosson, & Witell, 2017). Simply by better organization and categorization of eco-friendly goods and implementing small steps like green price tags customers were much more likely to purchase environmentally friendly goods (Guyader, Ottosson, & Witell, 2017). If big companies can demand their suppliers to support environmental policies, then customers should also be able to push for in-store practices to advertise eco-friendly products. That being said it should be in the retailer’s constitution to make efforts to highlight and effectively advertise for environmentally friendly options.

Interview: To solidify the notion that customers can demand big corporations to meet eco-friendly standards, and those corporations can do the same to suppliers, an interview was needed with someone who can see this process in action. Auditors have a role of bridging the gap between housing companies, their customers, and the government. The interview was conducted with an auditor from Bureau veritas, a globally renowned certification company, about the environmental policies companies must be implementing. Auditors conduct an ISO 1401, also known as effective environment management system, a certification issued if the firm follows a protocol to mitigate climate change. As a case study, I questioned Ajay, the auditor, about the authority that governs these firms to conduct eco-friendly actions, and he informed me, “The United Nations have an environmental forum where they call the corporate bodies to follow certain environmental procedures. I asked Ajay about the specific
According to Ajay, the government’s role is to provide three different types of permits related to the environment: water, air, and storm water permits (A. Rautela, personal communication, March 1st, 2020). Permits are issued from environmental bodies after company testing samples are approved.

Key points:
- It is our responsibility as conscious, intelligent creatures to correct that which we have damaged. Hope is abundant because developing nations have never been incentivized and financially aided as much as now, to ensure the sustainability of their own resources.
- My meta-analysis has examined the hurdles that correcting climate change entails, such as the costly price of switching to renewable energy. However, it also hopes to inspire confidence in our ability to go completely green in the future. The research has emphasized the role of governments to be strict about implementing environmental practices. It stresses the significance of strategies such as green bond advertisement and emission auctions for corrective action. Most importantly, it declares that the most supreme holder of power is the customer that can not only lobby the government but also big corporations to support change towards a greener tomorrow.

Green Premium cost reduction: $5 trillion → $250 billion
If countries and disciplines can band together to not only implement, but also strictly follow the policies, this decrease of the green premium is possible within the next 30 years (Gates, 2022). Thank you for supporting a green tomorrow.
Stigma associated with mental health diagnosis or stigmatizing attitudes expressed by healthy participants may be useful to focus on healthy participants. It was indicated that in comparison to diagnostic awareness, negative symptom presence was more closely related to stigmatizing attitudes expressed by healthy participants. It may be useful to focus on increasing public acceptance of specific symptom presentations in public mental health campaigns. This will allow individuals to be more informed about symptom presentations of mental illnesses such as schizophrenia. Raising awareness about the illness is important, but it is also crucial to work to increase acceptance towards individuals who present with symptoms of mental illnesses as well as these factors can ultimately influence a diagnosed individuals psychosocial functioning in the real-world.

Stigma associated with mental illness (Clinical Psychology)
Social exclusion towards individuals with schizophrenia can occur as a result of stigmatizing attitudes towards the diagnosis or as a response to observing atypical behaviours resulting from symptoms. The present study examined social exclusion towards schizophrenia as a function of diagnosis awareness and presence of negative symptoms. 64 healthy participants watched four different videos of confederates who were either labelled / not labelled with schizophrenia and displayed / did not display negative symptoms. Participants ranked their preference for social interaction with individuals in ten different activities and were told that they would complete the activities based on their rankings. The results of this study showed that participants expressed more stigma towards those who presented with a label of schizophrenia and no negative symptoms. On the other hand, participants expressed less stigma towards those who presented with a label of schizophrenia and negative symptoms. Finally, the results of this study indicated that in comparison to diagnostic awareness, negative symptom presence was more closely related to stigmatizing attitudes expressed by healthy participants. It may be useful to focus on increasing public acceptance of specific symptom presentations in public mental health campaigns.

I am of Egyptian origin, however, born and raised in Saudi Arabia. Moving to Canada and seeing the different systems and cultures inspired pursue my program. I am a 3rd year International Development Studies (IDS) Co-op Specialist student, with a minor in French and Political Science. In the duration of my co-op placement, I worked in northern Ghana for 10 months with a local NGO focused on children and women’s rights. After my sudden return due to COVID-19, I found myself in awe of how international affairs proceeded in a political movement while lives were at stake. Upon my return, I pursued working in fields I am passionate about such as a Program Support Staff to the IDS Program, a virtual internship with AKU Syria, and now an International Development and Assistant Researcher with Canadian Expertise in Youth. I am also currently writing my thesis on factors that influence girls’ education in Ghana.

Exploring Complex Factors that prevent access and completion of girls’ education within Ghana

Thesis Supervisor: Professor Kingston

About my Co-op Placement
• I was placed in the northern region of Ghana for 10 months – in Tamale.
• Under World University Service of Canada (WUSC), I was working with Regional Advisory Information and Network System (RAINS) as a Youth and Communication Officer.
• RAINS was formed in 1993 and has a long history of work and a long history of work to improve the lives of deprived communities and sections of the society. In conjunction with communities, government agencies and civil society groups, the organization pioneered interactions in advancing girl child education, tackling child labour, and the empowerment of women and girls.
The north of the country is development is still uneven. The Multidimensional Poverty Index, a measure of inequality between the north and south regions of Ghana, causing inequalities and division between the north and south. This shaped the regional employment opportunities. Regions of Ghana in search of the forest belt and more plantations. For the mines and cocoa during the colonization period, the south region was more prosperous. The northern region, the biggest region in Ghana (of 16 regions), which this thesis focuses on!

Regional comparison of expected and actual Heavily Indebted Poor Countries (HIPC) expenditures by local Ghanaian authorities (Source: Authors’ computations based on (a) 2000 population census data; (b) GPRS resource allocation criteria; (c) GPRS APRs, various years; and (d) Abdulai & Huime, 2015)

Research Questions:
What are barriers impacting girls access and completion of their education regionally? What factors influence girls’ education in the northern regions of Ghana? What factors have impacted these regional disparities with respect to girl’s participation in Ghana’s educational system?

Research Objectives:
Identifying: Identifying factors that prevent young Ghanaian girls from completing their education. Analyzing: Analyzing Ghana’s education practices, policies, and programs that may reveal regional disparities, through colonial, post-colonial, and modern times. Highlighting: Highlighting the densities of the factors that impact girls’ education & growing regional inequality in Ghana.

Thesis Statement: “Girls are prevented from accessing and completing their education in the Northern Region due to the complexity of the barriers which have intertwining, in accordance with regional disparities developed since the colonial era.”

Theoretical Frameworks:
1) Post-colonial Framework Involves discussion about experience of various kinds: migration, slavery, suppression, resistance, representation, difference, race, gender, place, and responses to the influential master discourses of imperial Europe such as history, philosophy and linguistics, and the fundamental experiences of speaking and writing by which all these come into being. Ashcroft et al., 2006) Through this framework, I will analyze the factors that impact girls’ education.

2) Political Ecology Framework I will apply the political ecology of education framework used for understanding the reciprocal relations between political economic forces influence pedagogical opportunities, affecting the production, dissemination, and contestation of environmental knowledge at various interconnected scales (Meek, 2015, p. 2). I will analyze interactions between young girls and their environment in educational spaces. Through the political ecology lens, it will assist me in unpacking how local communities, the Northern Region, and national forces interact to shape environmental teaching and learning (Loro-Bidart, 2014).

Methodology:
• RAINS (local NGO) primary data on barrier to girls’ education (728 girls)
• News articles from the Northern Region (46 news articles from GhanaDistricts) RAINS newsletters on children sharing barriers to education in their community (17 students)
• Literature to supplement my findings and highlight my second objective of analyzing literatures that may reveal regional disparities in Ghana.

Thematic Analysis will be used to examine the prominent theme revealed by data on Social, Economic, or Political factors.

Positionality: Post-colonial theory Political ecology

Limitations
• Limited data on the northern regions – no desks, chairs, books, etc.

More data:
• Regional inequality contributed more to the increasing trend of national inequality from 1998 to 2006 (Amoo, Fosu & Abu-Cann, 2014).
• This gap is largely driven by differences in household income per capita and percentage of household members enrolled on health insurance policies (Ampaw, Nketiah-Amponsah, Ayigye-Tettey & Senadza, 2020).
• Reasons often put forward to explain the poverty and underdevelopment of northern Ghana compared to southern Ghana have included history, unfavorable climate and agricultural production conditions, and post independence political neglect (ODI and CEPA, 2005).
• Teenage pregnancy decreases the probability of girls’ enrollment by 27% after controlling for other factors (World Bank, 2019).
• Girls’ enrollment rates in primary and secondary school are higher than boys in most regions, but not for the Northern regions (World Bank, 2019).

Way Forward?
• A study shows the secondary school scholarships in 2008 led
to increased completions of senior secondary school, more years of education, higher reading and math test scores, and higher earnings in 2016 (Duflo et al. 2017)

- More scholarships.
- School feeding program to improve girl’s participation/ retention (Mahama, 2018).
- Investments in economic infrastructure because of the tendency for public agencies to assess the provision of that infrastructure in terms of financial benefits and measures of efficiency (Al-Hassan & Diao, 2007).
- Genuine decentralization policy and supportive district development policies formulated at the national level (Owusu, 2005) but I also believe at the regional level.

Significance

Draw attention and conversation on the factors that prevent young girls from accessing and completing their education regionally across Ghana. Using a post-colonial & political ecology framework adds depth and an alternative perspective to factors examined. Highlights regional & gender inequalities, as well as the gap in available data in northern regions. Exploring these factors can impact further decision making/policies in Ghana, as it calls for change.

Questions/ Feedback? Please feel free to contact me at mira.hennawy@mail.utoronto.ca for any questions or feedback you have. Thank you for your time!

Anujian Chandran is a 2nd year undergraduate student at UTSC, pursuing a double major in Health Studies (Population Health) and Psychology. He is strongly passionate about mental health, public health and addressing health inequities. Currently, Anujian is interested in understanding through an interdisciplinary lens the impact of health inequities on the global population during the COVID-19 pandemic. He aspires to become a researcher and scholar focusing on addressing health equity in marginalized populations locally and globally.

A Wake-Up Call for Rehabilitation

In 2017, the WHO launched their “Rehabilitation 2030: A Call for Action,” where they described the lack of rehabilitation service accessibility and resource management in nations worldwide. Specifically, they discussed the urgent need to manage rehabilitation resources to improve populations’ overall health status and well-being, specifically those residing in low- and middle-income countries. However, the recent emergence of COVID-19 has shifted the focus of global health research and policy implementations. Nevertheless, there remains a dire need for accessible, adaptable and affordable rehabilitation services to global populations. Utilizing a community-based approach will significantly reduce the concerns related to accessibility and sustainability. This approach will be under the supervision of the WHO to ensure the universality of policies and regulations. This approach will provide better resource management, cultural relativity, community resilience and the promotion of health literacy and education. Resource management will be under the direct supervision of communities who will allocate resources from the community and WHO to the services at greatest need while providing direct access to the community. In terms of cultural relativity, communities will focus on their values when building these programs. This will allow for the greater success of treatment given the confidence local populations will place on these services. Furthermore, community resilience will also increase through this approach which will allow sustainability of these services. Moreover, health literacy and education will also increase across communities, which will assist in health promotion globally. Overall, as the WHO has emphasized, there remains a significant need for rehabilitation services across global communities. This approach will allow for the universality of policies and guidelines while also enhancing the population’s well-being through ownership and cultural significance of rehabilitation services.

Rehabilitation is a fairly new yet necessary healthcare service that extends beyond immediate medical treatment. Rehabilitation is a set of interventions designed to optimize the functioning and reduce disabilities in individuals with health conditions regardless of age (World Health Organization, 2020). The purpose of these services is to ensure that individuals can survive independently and complete everyday activities to take on meaningful roles in their lives and participate in work, recreation and education (Heinemann et al., 2020). This includes social rehabilitation services such as speech-language pathology, physical rehabilitation services such as physiotherapy and mental health rehabilitation services. Currently, these services are not available to everyone. More than 50% of people in low- and middle-income countries don’t have access to rehabilitation services. The lack of global rehabilitation can be attributed to the lack of funding, policies, feasible
planning, training, and resources.

In 2017, the World Health Organization launched their “Rehabilitation 2030: A Call for Action.” They described the lack of rehabilitation service accessibility and resource management in nations worldwide (World Health Organization, 2017). Specifically, they discussed the urgent need to manage rehabilitation resources such as funding, healthcare professionals, and technology to improve the overall health status and well-being of populations, specifically those residing in low- and middle-income countries (Heinemann et al., 2020; World Health Organization, 2017; Bright et al., 2018). However, the recent emergence of COVID-19 has shifted the focus of global health research and policy implementation from increasing accessibility of rehabilitation services to responding to and reducing the spread of COVID-19. 60–70% of rehabilitation services have been disrupted due to the current pandemic (World Health Organization, 2020). Nevertheless, there remains a dire need for accessible, adoptable, and affordable rehabilitation services to global populations. My project aims to discuss how the global community can continue to focus on providing these services while responding to the current pandemic. After learning about rehabilitation services and the lack of equitable access individuals globally have to it, I believe that integrating community-based rehabilitation programs into the healthcare systems in global nations can help reduce the inequities of these services in low- and middle-income countries. Ultimately, this program will provide these services under regulations and policies determined by the World Health Organization, which will then be facilitated by community-based programming to ensure accessibility, affordability, and sustainability of these services. A community-based system will allow for resource management, cultural relativity, community resilience, health literacy, and education. This commentary will focus on how a community-based system will account for an accessible and long-term rehabilitation model. School-based programming and access to community-based programs will be critical to providing these services and support robots. However, the lack of financial means and resources limits the distribution of these advancements worldwide; this also makes it difficult for people globally to access these services and receive the care they deserve. To mitigate these issues, community-based programming allows for community involvement to allow for better resource management. Aside from the WHO resources, community resources will be pooled for better management. This approach will allow for funding to be allocated from the WHO directly to local programs. Then community programs will have the financial freedom to assess the community’s rehabilitation needs to allocate resources to the most needed programs. Being able to manage money and resources will allow for the needs of the population to be met. On that note, community-based programming will also allow for local populations to easily access these services. One issue with the current model is that people have to travel long distances to access the care they need. By using community-based programming individuals can avoid long travel times and access care directly in their communities. Another prominent issue with the current model focuses on using a westernized model of rehabilitation to address the needs of the global population. Community-based programs will allow for more freedom over the rehabilitation services that will focus on cultural relativity. Community-based programs allow for local populations to build their services based on the needs, values and strengths of their community. This not only makes these services more accessible but also makes them more appealing. In some communities, rehabilitation is frowned upon and stigmatized. However, this emphasis on cultural relativity provides more engagement from community members. Furthermore, this approach may also allow for greater success of the rehabilitation programs dependent on the increased confidence patients may have in the treatment. Many studies often point out that treatment success depends on whether patients and participants trust that the treatment will work. Similar to how a placebo can sometimes lead to success in some people. When a program is built by community members who believe in the program, they are more likely to trust the treatments and be more engaged in obtaining the services. One of the most prominent pieces of this approach will be the community resilience component. Similar to grassroots projects, community-based programming is more likely to be increase interdependence amongst community members resulting in community resilience. Community-based programming for rehabilitation will be in the form of the WHO providing communities with guidelines, policies, and providing mentorship. Still, community members will be building services from the ground up, allowing for ownership amongst community members. Furthermore, one of the concerns related to the lack of rehabilitation services is the lack of health professionals in global communities. When setting up these programs, the WHO and other accredited organizations can provide mentorship and opportunities for community members to seek training to support certified healthcare professionals in these services. Ultimately, this opportunity can increase personnel in rehabilitation services and ensure the sustainability of these services. It will also reduce the ambiguities surrounding telemedicine. The most important piece of community-based programming will be on the health literacy and education component. There continues to be a lack of awareness related to rehabilitation services. Creating local programs will allow for a better understanding of rehabilitation and health amongst global populations since these programs will focus on bringing healthcare and rehabilitation directly to the users. This will have positive implications on the physical and mental well-being of the population, fulfilling these services’ role. In conclusion, I firmly believe that utilizing a community-based rehabilitation program approach will allow for the universality of rehabilitation policies and guidelines while allowing communities to take ownership over their services to ensure the population’s well-being. Although it may require intense efforts to set up this program, it will be sustainable and accessible for generations to come.
I am currently pursuing an undergraduate degree in Human Biology from UTSC. Despite having one area of primary focus, it has always been my interest to further a multifactorial understanding of vital pieces of information, especially those issues that have worldwide impact. Someday I hope to unearth the inequities, inequalities, and non-inclusions that hide behind the facades of “progress” and “feasibility”.

Inequitable Access to the Digital Passport

Among the inequities that were, and continue to be, exacerbated by the pandemic is that of the digital divide that exists among and within countries. Since the early 2000s, the number of internet users per 100 people has more than quadrupled in wealthy and developed nations at a time when the number of users has barely doubled (World Economic Forum Report) amongst people living in least developed countries (LDCs). Aside from the level of development, the pandemic has exposed many more factors that have been long-standing amongst marginalized communities, yet, have received barely any attention from policymakers and the private sector. Digitization is of prime importance during these times, not only for educational purposes, but also for addressing health-related concerns (Arighi et al., 2021), job searches, and epistemological access (Correia, 2020). Even within developed nations such as the USA, marginalized communities hardly have access to internet that has a decent bandwidth (Carleen, 2018); despite having the internet marketed towards them as a way of climbing out of poverty. A plethora of other issues such as lack of faculty development, disproportionate access to telemedicine, exponential rise in mental illnesses, as well as digital marketing with an elitist backdrop in mind, continue to plague the societies that require the most assistance. This submission proposes strategies including, but not limited to: implementation of new digital laws that make it mandatory for internet connections in every household within a country meet a rigid baseline bandwidth requirement, pushing policymakers to allow for communities to build their own broadband services, lobbying federal governments to push the World Trade Organization to increase allocated budget for digital welfare in LDCs, as well as using foreign exchange programs as a fulcrum for imparting digital awareness to technologically impaired communities.

Inequitable access to the digital passport

Swetharajan Gunasekar
Human Biology

Does it exist?

Governmental Data

Continue to operate at low-income levels

No profit incentives in rural and marginal communities

Lack of access to socioeconomic security

Abolishment of horizontal and vertical mobility

Strategies and call to actions

• Increased involvement of NGOs and student-run clubs

• Capstone projects implemented amongst organizations such as AIESEC

• Relative scale increase of Digital Technology Rental Programs

• Resource adjustment by schools

• Push for digital literacy programs

• State and local governments to provide support for community broadband

• Lobbying local governmental bodies to enforce minimum bandwidth requirements

Betel Woldu is a third-year undergraduate student double majoring in Political Science and Public Policy and minoring in International Development Studies. Her research interests are the theoretical and pragmatic dimensions of international and comparative law and politics. She is particularly interested in the intersectionality between politics and law in the context of human rights as well as development policy in Latin America and Africa.

The Constitutional Court of Colombia and the Judicialization of the Right to Health

The scope of this research is to examine the creation and development of the Constitutional Court of Colombia and extensively evaluate the judicialization of the right to health. Following the Constitution of 1991, the Court was created to address the problematic, century-old socio-political landscape. This landscape was flawed by political violence, presidentialism, and widespread violence which severely affected the rights of Colombians who could resort to neither political avenues nor judicial ones for redress. Thus, both the political and legal vacuums urged for a bridge between rights—nominally protected by the Constitution of 1886— and Colombians’ reality. I will argue that the progressive creation of the Constitution of 1991 and the Court revolutionized the essential nature of the Colombian state by making it into a social rule of law state that ultimately transformed the conceptualization of rights protection and the mission of judges. I will further argue that this had crucial implications for the judicialization of the right to health as the Constitution of 1991 provided acción de tutela which, alongside social actors, constituted the support structure for bottom-up legal mobilization. Some ideational factors brought by the Constitution of 1991 also motivated a certain type of judicial behavior favoring judicialization. Firstly, I will outline the history of pre-reform Colombia by focusing on the socio-political landscape and the obsolete judicial system, followed by a discussion of the creation and functioning of the Constitutional Court. Subsequently, I will illustrate the judicialization of the right to health by mainly drawing on Epp’s (1998) ‘rights revolution’ and providing landmark cases.
and distress. When assessing feelings of loneliness, anxiety, and depression amongst youth and young adults. These individuals faced increased grief, anxiety and depression among those with a poor relationship with social determinants of health. To combat this growing concern and ensure resilience amongst the population as we recover from this pandemic, a multi-faceted approach is required. This can be addressed by instating a nationally recognized Youth for Youth program. This program will focus on providing support for youth-by-youth mentors who are trained and accredited. These mentors will focus on providing one on one support and building a platform based on the needs of youth in order to address the challenges currently at hand. This program will delve further to build a community that fosters feelings of motivation, social development as well as connectedness during and after the pandemic. Furthermore, this program will also encourage youth to get involved within the community, gain opportunities to take part in health literacy. This program will allow for the strengthening of community resources by introducing safe spaces to reduce isolation amongst youth. Holistically, introducing this platform will spotlight mental health to ensure service and support to individuals during these trying times and will continue to be sustainable beyond this, as youth will continue to work together to address the challenges they experience.

Twenty percent of Canadians experience mental health-related problems and illnesses during their lifetime (Canadian Mental Health Association, 2019). Although many individuals endure mental health-related issues, fewer people seek treatment due to the stigma associated with mental illness. Stigma against mental health includes negative beliefs and attitudes toward people with mental disorders and illnesses (Mayo Clinic, 2017). Previous research indicates that stigma against mental disorders is prevalent and often increases distressed amongst those tackling these disorders (Crisp et al., 2000). Over the years, researchers and healthcare professionals have shed light on the global population’s growing mental health challenges. Specifically, they have focused on the new epidemic of “loneliness,” a growing concern amongst youth. Many advocacy groups, local organizations and institutions have focused on reducing the stigma associated with mental health issues.

A year ago, when the COVID-19 pandemic hit us, life changed for people worldwide. This sudden shift forced many people to shift their lives completely. Aside from the difficulties people have faced in terms of unemployment, ensuring their physical health, and social isolation, the spread of COVID-19 mental health challenges have been exacerbated. You and I both know that our schedules have shifted from 9-5 workdays, in-person classes, spontaneous coffee runs to Starbucks and lunch with friends, to days lost in front of screens to our virtual world. Many of us spend hours on end in our rooms facing difficulties telling days apart and building a work-life balance. Research conducted on mental health suggests that the isolation measures and restrictions placed in efforts to reduce the spread of this deadly virus have had negative implications on mental health across the globe. Researchers have discussed mental health-related issues during the pandemic has increased negative coping styles, loneliness, anxiety, and distress. Some of these concerns include health, safety, well-being, emotional isolation, economic loss, financial distress and resource loss (King, 2018; Grubic et al., 2020; Fernández et al., 2021; Savage et al., 2020). Specifically, researchers have found that COVID-19 has exacerbated mental health challenges and increased grief, anxiety and depression amongst youth and young adults. It is due to many reasons, including the sudden shift to online learning, increased responsibilities at home, lack of freedom and most of all, the lack of opportunities for social development (Mheidly et al., 2021; Zhai et al., 2020).

As Erik Erickson describes in his development stages, identity versus role confused is the stage youth and young adults experience. This stage of development focuses on finding yourself and your place in your peer groups and society. The question of “who am I?” is something that individuals wish to answer during this time; however, the current pandemic has prevented opportunities to engage with one another and undergo this development stage. Ultimately, the current pandemic has caused significant distress amongst youth and young adults and has long-term implications on their mental health, well-being and functioning.

Existing literature on youth and young adults’ current mental health suggests that the COVID-19 pandemic has disproportionately impacted them. Whether it be through the stressors of online learning, the academic burnout of feeling overwhelmed and due to the monotonous experiences of learning, the lack of structure in their daily lives, the lack of social opportunities, autonomy and the undeniable pressures and comparisons associated with social media (Jiang et al., 2020; Yang et al., 2020; Zhai et al., 2020; Power et al., 2020). I would like to suggest a “National Youth for Youth Program” mandated by the Canadian government to ensure youth’s mental health during and after this pandemic. The Youth for Youth Program will act as a platform youth can utilize for mental health support and services while building a strong sense of community. Youth will be screened and hired to act as “mentors” and managers of the program. They will then work together to provide sustainable support using a holistic model. As a nationally mandated and accredited program, all youth chosen to be mentors will be trained by nationally renowned institutions such as the Centre for Addiction and Mental Health, Canadian Mental Health Association, the University of Toronto, Kids Help Phone as licensed individuals. Appointing a diverse steering committee of this program will be of diverse backgrounds and will ensure people with lived experiences are involved at levels. This will include black, indigenous and people of colour, individuals of varying socioeconomic statuses and gender diverse individuals. Appointing a diverse steering committee will help account for the social determinants of health.

ILAKKIAH CHANDRAN

Ilakkiah Chandran is an undergraduate student pursuing a double major in Neuroscience and Psychology and a minor in Biology. Over the years, she has been greatly involved in various research projects assessing developmental psychology, genetics as well as neurodegeneration. Recently, she discovered her passion for understanding and evaluating the intersectionality of psychology and public health and is currently working on various projects that focus on identifying and addressing barriers to healthcare accessibility.

COVID-19: Mental Health amongst Vulnerable Populations

Over the years, researchers and healthcare professionals have shed light on the growing mental health challenges faced by vulnerable populations and youth. The current pandemic has exacerbated these challenges. As the global population focused on reducing the spread of COVID-19 and ensuring the reopening of the economy, mental health was ignored completely. Research conducted on mental health changes suggests an increase in negative coping styles amongst youth, increased feelings of loneliness, anxiety, and distress. When assessing vulnerable populations, researchers found that COVID-19 has exacerbated mental health challenges amongst youth and young adults. These individuals faced increased grief, anxiety and depression amongst those with a poor relationship with social determinants of health.
individuals’ passion. As literature describes, youth have been struggling to stay motivated during this pandemic and providing these opportunities can be beneficial on that front. On a simpler note, this platform can also have access to study groups to reduce the redundancy students experience now when studying alone or tackling assignments independently. On a long-term basis, this can extend to be larger-scale community events and initiatives that increase inclusion.

In conclusion, building this program and integrating it to meet the needs of youth beyond the pandemic will be critical in ensuring their mental health and supporting their transition during this evolving situation. I think this program is both sustainable, feasible and necessary because there have been increased efforts on institutional levels and from external organizations; however, it just isn’t enough. This isn’t always because there is a lack of willingness but because there is a divide. We perceive institutions as larger scale and places we can’t reach. Building a platform that allows youth to connect with youth while providing resources to one another is just one big community aspiring growth amongst one another. It remains sustainable because it is a feedback loop, youth who are participating in the program become mentors and update the program to meet the current needs appropriately. This creates an ever-evolving and current model that will support the needs of all users.

Leeza Gheerawo (they/them) is a five-year undergraduate student completing a Co-op Specialist in International Development Studies and a Sociology Minor in Critical Migration Studies. Leeza’s research topic is influenced by their 2019/2020 co-op placement experience in Eswatini. Currently, Leeza is the UTSC Representative for the University of Toronto Resource Network and serves as a RISE Ambassador with Apathy is Boring. As well as they published a cookbook with friends titled, “Quarantined Chefs: A Community Sourced Cookbook for your Pandemic Needs.” Leeza’s research interests include migrant workers’ rights, queer migration to Canada, and racism within the development sector. Connect with Leeza on Instagram @Izaghrerawo

The ‘Satanic’ People of Eswatini: Challenges Towards LGBTQI Decriminalization Currently, consensual same-sex relations are illegal in Eswatini due to the enforced Roman-Dutch common laws. King Mswati and former Prime Minister Barnabas Dlamini have publicly shared their disagreement of same-sex relations stating homosexuality as “satanic” and “abnormal.” Additionally, there are no constitutional legal protections for sexual and gender minorities who encounter harassment and violence because of their queer identity. As well as the courts have denied queer community-based groups to register legally. However, in June 2018, Eswatini held its first pride parade. The parade symbolizes the step towards legally abolishing the existing anti-sodomy laws in Eswatini.

This paper argues that Eswatini has not decrypted consensual same-sex relationships because of the lack of LGBTQI allyship evident through government hostility and un-African and Christian narratives. The research examines the obstacles that prevent the decriminalization of homosexuality in Eswatini. These obstacles include political pushbacks and ‘un-African’ ideologies coupled with religious views that produce challenges within LGBTQI acceptance. In addition, methods that the queer community-based groups use on social media to raise the visibility of LGBTQI mobilization. The research process used a political opportunity theory framework as well as a discourse and social media analysis to examine newspapers, social media posts, interviews, and non-governmental reports.

Keywords: sexual and gender minorities, Africa, political opportunity, and queer mobilization
Rajpreet (she/her) is currently based in Tkaronto & Kitchener-Waterloo and is finishing her studies in International Development Studies Co-op and Human Geography at the University of Toronto Scarborough. She is a School of Cities Undergraduate Fellow and will be organizing alternative mapping workshops with the Scarborough Studies Collective. As a spacemaker and builder, she values critical/feminist pedagogy, placed-based projects, and believes in the power of collective action. With a team of BIPOC youth, she is starting a neighborhood level composting initiative in Kitchener to engage with the local food system in a sustainable and innovative way. She is also developing the first gender-based violence policy for the Scarborough Campus Students’ Union. In her spare time, Rajpreet loves making her own paper, baking muffins, and hopes to continue to build spaces of community care.

Ali Javeed is an undergraduate researcher part of the Affective Science & Health Laboratory, and an independent photojournalist based in Scarborough. His research explores the fundamental needs to do good and feel good, and how they may be harnessed to better understand conflict, promote political action, and bring people together. Outside of the lab, he explores these concepts through his camera lens in political actions across the city. Ali is also the recipient of the University of Toronto Excellence Award, a finalist at the 2020 Undergraduate Research Forum, and an incoming Ph.D student in Social Psychology at New York University.

Haunting as a Verb: Public Memorialization of Disappeared Persons on Instagram, in the Aftermath of the Nepali Maoist Civil War

The goal of this research project is to examine the public memorialization of disappeared persons in Nepal, after the Maoist Civil War on the social media platform, Instagram. It is difficult to provide evidence for enforced disappearances, hence the perpetrators are rarely prosecuted. There has been a lack of coordinated public memorialization processes and a lack of efficient transitional justice institutions by the Nepali state, hence I am exploring Instagram as an alternative site of memory. The methodology was a reflective thematic analysis of 30 Instagram posts, utilizing NVivo. I completed 30 textual analyses of the captions and 64 visual analyses of the images. Through preliminary codes and themes, it is evident that the disappearances of family members have left intergenerational trauma and feeling of ambiguous loss, as families and the larger Nepali social fabric are haunted by the lack of transitional justice. Public memorialization on a social media platform like Instagram gives way for accessible counterhegemonic memory-making to honour, remember and embed disappeared persons into the national collective memory.

From the screens to the streets: Do emotional responses to witnessing anti-Black racism impair political action?

Through the accessibility of social media and live streams, individuals can witness both extreme and seemingly mundane acts of racism from anywhere in real time. For witnesses, these acts may be unsettling and evoke attempts to reduce distress through emotion regulation. When regulation is successful, feeling good may come at a cost: a reduced motivation to engage in anti-racist action (e.g., protesting, seeking information). To investigate this, we recruited two samples of racially (Black, White, South & East Asian) and politically (Democrats & Republicans) diverse United States participants (N > 800) in June 2020. We measured emotions relevant to mobilization such as moral outrage, hope, and guilt, as well as reappraisal tactics (strategies to change how you feel) in response to witnessing racism. The reappraisal tactics can be organized based on the degree to which they involve disengaging vs engaging with the situation. To observe behaviour over time, we measured recent and planned anti-racist action in July 2020, and then followed up in August 2020 to compare how regulation tactic usage may influence activism decisions. We will examine if 1.) effective emotion regulation helps people feel better after witnessing racism at the cost of action, and 2.) whether these associations differ by racial and political identity. This project offers insight into how witnesses may satisfy their emotional needs, while also preserving a motivation for political action.
BHANVI SACHDEVA

Bhanvi Sachdeva is a second-year student at the University of Toronto where she is specializing in Behavioral Neuroscience. She is extremely passionate about neuroscience and its interdisciplinary applications in artificial intelligence, public health, psychology and more. She is also involved with various organizations including the Women’s and Trans Center as well as co-founded her own; Articulate. Some of her hobbies include writing poetry, playing tennis, and playing league of legends. She hopes to further develop her passion for neuroscience and public health as well as contribute to its integration in intervention models. At the Undergraduate Symposium, she hopes to meet like-minded individuals and envision a better future together.

The Intersection of Artificial Intelligence and Public Health Systems: Healing the Most Vulnerable First

Artificial Intelligence, specifically machine learning, is at the essence of clinical care and is employed to ameliorate the efficiency of public health care systems. Machine learning allows clinicians and epidemiologists to effectively identify vulnerable populations and emerging threats, accurately build risk prediction models of disease incidence within the population of interest, as well as allow for better implementation of policy and health management plans. Furthermore, by developing new risk prediction models, public health organizations can work towards improving health equity and preventing chronic diseases in the population. However, with a greater demand for data-driven decisions in today’s society, there are a number of challenges that negatively influence the integration of machine learning in public health systems. These include selection biases against protected groups that have experienced structural biases in the past which leads to a potential for increased health inequities accompanied by an overall lack of AI education and skills within public health. Other logistical challenges include data access as well as outdated data infrastructure that might prevent effective disease management within a given population of interest. This paper analyzes how machine learning can be applied to get a more detailed and up-to-date understanding of population disease and risk factor distributions alongside determining vulnerable populations that the data might selectively be biased against. To further detect, localize, and characterize novel outbreaks of disease like the COVID-19 pandemic, this paper will also discuss the use of machine learning and data science tools to shape the public health system in a more equitable light.

ALFONSO MANALO

Alfonso Ralph Mendoza Manalo is currently a third year student at UTSC double majoring in Global Asia Studies and Public Policy and minoring in Critical Migration Studies. He is currently an Equity, Diversity and Inclusion Policy Advisor for the RCMP and an Grant Writer for the Filipino Centre Toronto. He has held positions at the Asian Institute at the Munk School, the Urban Alliance on Race Relations, SCSU, and other organizations as well. He is interested in race relations, Southeast Asian studies, diaporic studies, rhetoric and narratives, and the policy making process. “The China Virus” Anti Asian Discrimination and COVID-19 presented by: Alfonso Ralph Mendoza Manalo

Anti-Asian discrimination, rhetoric and racism have re-surfaced throughout the onset of the pandemic. This presentation strives to humanize the experiences of overt discrimination and oppression that Asian-Canadians are currently facing, as well as show the historical influences of current Anti-Asian rhetoric and how it can be categorized. We will start by introducing you folks to a few of the over 8,000 victims of Anti-Asian discrimination in America.

All over the United States, Asian Americans are being burned, slashed, stabbed, murdered, robbed, and killed. NGO’s throughout the U.S have repeatedly tried to bring attention to the lack of coverage given to Asian and Pacific Islander communities in the US, and the omission of Asian-Americans in the overall discussion surrounding race. The state has not efficiently intervened, NGO’s have had to set up voluntary patrols in America’s Chin Towns simply to keep our elders safe. The three individuals on the right, have been victim to some of the most gruesome and unjust acts of discrimination. Vicha Ratnapakdee was an 84 year old man from California, who was pushed by a 19 year-old. He was pushed so forcefully that he died from his sustained injuries, as his head hit a garage door upon collision. The second is Noel Quintana, a 61 year-old Filipino-American from New York who was slashed across the face with a box-cutter, in which he notes that “I was scared because I thought I was gonna die and nobody helped me.’. The third is Ee Lee, a 36 year old Hmong-American from Wisconsin who was gang-raped and beaten by a group with a box-cutter, in which he notes that “I was scared because I thought I was gonna die and nobody helped me.’.

Ralph Mendoza Manalo

Discrimination and COVID-19

Presented by: Alfonso Ralph Mendoza Manalo

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Race, discrimination and racial oppression are phenomena in which us Canadians often deny. We often point to the U.S and claim that racism is solely in issue there, however according to Amy Go and various policing agencies, the incidence rate of Anti-Asian discrimination per capita is
higher in Canada than in the U.S. For instance Montreal has witnessed an uptick of 30 more cases of hate crimes over the course of COVID-19 while Ottawa has witnessed an increase of 57% of hate crimes, both note that these increases are mainly comprised of Anti-Asian discrimination incidents. Vancouver has witnessed an increase of 717% in regards to its incidence of hate crimes against East and South-east Asian Canadians.

Luckily, most cases that have occurred in Canada have not been physical in nature. However this does not take away from the fact that Asian-Canadians are invisibilized and used as racial scapegoats for COVID-19. Have we heard the stories of the following Asian-Canadians covered by the media? Please take note of the ethnic diversity among the three cases shown on this slide. The first being the Lekhi family from BC who witnessed their houses’ windows being smashed and their residence being graffitied with swastikas and other obscene phrases regarding White supremacy. The second being Marnie Manalo, a Filipino-Canadian from Ontario who was followed and yelled at twice during the same night, and was told “You, Chinese go back to China”, and “Go Back All of You, this is your fault”. The third is Dakota Holmes, an Inuit woman from BC who was spat on and hit by a man after she had sneezed, while walking her dog. She was mistaken by the man to be Asian and was told by him to go back to Asia where she belongs. These are but a few of the many Asian-Canadians who have experienced Anti-Asian discrimination, whose experiences are not discussed, whose oppression goes unreported, and who are othered and treated as second-class citizens. However this is nothing new, COVID had only caused pre-existing sentiments among Canadians to resurface.

“The rhetoric surrounding "The CHINA Virus" clearly demonstrates how we are treated as second-class citizens, i.e. how we may possess the same legal rights but not the same social or economic benefits as other Canadian citizens. Racism in Canada, particularly Anti-Asian racism is often covert. We are often used as a racial scapegoat whose contributions are both ignored and magnified to justify the oppression of other racialized communities.

This is a legacy of historically overtly racist pieces of legislation and incidences. In the case of the U.S this includes the 1871 Chinese Massacres derived from fears that labour for the majority would be outsourced to the Chinese as they were considered as cheap labour, the 1879 Constitution of California which banned the employment of Chinese peoples in all corporations in the state as well as municipal and state governments. This also resulted in the 1882 Chinese Exclusion Act which resulted in the barring of immigration of Chinese nationals.

Canada’s legacy is often overlooked however we also have our fair share of ratifying overtly Anti-Asian pieces of legislation and ignoring the oppression of Asian peoples. This includes the Chinese Head Tax which required Chinese nationals to pay exorbitantly high taxes in order to migrate into Canada, the 1902 ruling which stated that Japanese and Chinese peoples were inherently unfit for full citizenship. The 1909/1919 Anti-Chinese riots in Vancouver and Halifax which led to the looting and burning of Asian-Canadian owned establishments and a few killings. The 1912 Act to Prevent White Women from working in certain capacities which barred white women from being employed in establishments owned by Asian-Canadians for fear that the Asian-Canadian owners would exploit and enslave them. The 1914 Komagata Maru which barred the entry of Indian-Canadians from entering Canada, and the 1942 internment of Japanese-Canadians wherein they were presumed to be loyal to Japan due to their ethnicity despite possessing Canadian citizenship, and subsequent loss of all their properties and their internment. These are but a few of Canada’s Anti-Asian pieces of legislation, however despite them being historical in nature, the framework and rhetoric that fuelled them possess characteristics that are prominent in Anti-Asian Discrimination today.

These characteristics include the following:

Yellow Peril: The notion that Asians are inherently a threat to the very social fabric of Canada, picturing them as dirty and harborers of vice such as opium, and a threat to the economic outcomes and labour access of the majority

Orientalism: The notion that Asians and any culture from the East are polarizingly different from the West. This results in the East being framed as mystical, exotic, barbaric and inherently inferior compared to the West and subsequently paints Asian-Canadians as perpetual foreigners no matter how long they have naturalized in Canada for, whose values are in direct contrast to that of the Canadian state

Model Minority: This is the notion that Asian are the model minority, in that they have been able to achieve high rates of household income and educational levels compared to other minorities. This overly simplified notion neglects the fact that this is a result of the stringent educational levels required by the Canadian state for Asians to migrate into Canada. This is often used by the majority as a scapegoat to assert the notion that they do not need to ratify affirmative action or other equitable pieces of legislation for other minorities as Asians have been able to achieve this without that, which leads to victim blaming.

Now that we have covered my framework and the historical influences that have shaped my research I will now explain my research. Over the course of 8 months, (Dec 2019 - Aug. 2020) I scoured all over the Internet to find newspaper articles or videos covering individual incidents of Anti-Asian racism in Canada. I then qualitatively categorized each incident and plotted them individually on a map. My objective in doing so was to give a visualization of the scope of this problem, a problem that is often ignored. I was able to track down categorize, and plot 104 individual cases of Anti-Asian racism in Canada, however I would like to stress that the Fight COVID Racism, an NPO that accepts reports of Anti-Asian discrimination has tracked over 850 cases across Canada, which shows the disparity of media coverage given to the lived experiences of Asian-Canadians.

The categories I used to categorize incidents can be divided into three. To categorize each incident I qualitatively coded the rhetoric spoken or written by the perpetrator into these three categories. The three categories I had used are mutually exhaustive, meaning that there are cases in which the rhetoric present possesses elements from two or more categories. The first category is racial/cultural homogenization, wherein the perpetrator ignores the cultural, religious and social diversity of Asian-Canadian communities and paints them as a monolithic entity. This can be seen in the following:

Lastly, are pieces of rhetoric that blame Asian-Canadians for the spread and origin of the disease. This paints us as a scapegoat however instead of being considered a yellow peril for the fear of the majority losing their employment, their wives, or their social values we are seen as a yellow peril that spreads disease all throughout Canada. This can be seen in the following message:

The link to my map is attached with this document, I kindly urge you to peruse and familiarize yourselves with this under-studied and neglected phenomenon. I would like to leave you with a few words, that being that Racism does not only involve black and white bodies, but brown bodies too. We are not a virus, our stories are diverse, and we are Canadian. These are our stories, when will they be told? The road to recovery must give attention to the lived experiences of all peoples, Asian-Canadians included. Thank you.
Public Health, and Racial Equity

Background: A failure to ensure racial equity in response to the COVID-19 pandemic has caused Black communities in Canada to disproportionately be impacted. The aim of the current study was to determine the needs and concerns of Black communities in the Greater Toronto Area (GTA) and to highlight the importance of collecting race-based COVID-19 data.

Methods: Six qualitative interviews were conducted with local community health centre leaders who serve a high population of racialized communities within the GTA. Content analysis was used to extract the main themes and concerns raised during the interviews.

Results: The findings from this study provide further evidence of the disproportionate impact COVID-19 has had on Black and other racialized communities. Difficulty self-isolating due to overcrowded housing, food insecurity, and less social support for seniors were concerns identified by community health leaders. Also, enhanced financial support for front-line workers, such as Personal Support Workers (PSWs), was an important concern raised. In order to lessen the impact of the pandemic on these communities, leaders noted the need for greater accessibility of testing centres in these areas and a greater investment in tailored health promotion approaches.

Conclusions: Overall, our findings point to the importance of collecting race-based data to ensure an equitable response to the pandemic. The current “one size fits all” response is not effective for all individuals, especially Black communities. Not all populations have access to the same resources, nor do they live in the same conditions [1]. A deeper consideration of the social determinants of health are needed when implementing policies and responses. Also, a lack of attention to Black communities only continues to perpetuate the underestimated issue of anti-black racism prevalent in Canada.

Transforming Science Labs using Virtual and Augmented Reality

This study analyzes the role that Virtual and Augmented Reality can play in furthering the capabilities of Science laboratories. The labs of today have largely lagged behind the recent advances in computing over the past few decades, especially the role of computers and digital vision. VR can play a multitude of roles in the labs of today, such as improving safety by minimizing the need for physical experimentation, or allowing students and professors to visualize molecules in 3D. The study also focuses on how the implementation of Virtual Reality can allow students to conduct experiments virtually, which is of heightened importance during the times of a pandemic. The study also focuses on the potential of AR, and how it can help augment and enhance existing laboratories, by allowing researchers live information of safety data of samples and chemicals, just by looking at them, or allow partial automation of potentially dangerous procedures through a combination of AR and Voice Recognition. The study then looks at a couple of experimental studies and projects already undertaken in this field, and what developers of such solutions can learn from them. Finally, the study takes a look at potential difficulties and hindrances associated with employing such a system, and how they may be addressed.