2020 Semester Presidential Incentive Awards

Semester Incentive Award

The Impact of Social Networks on Students' Choice of Major and Retention

Dr. Diogo Pinheiro

Assistant Professor, Tenure track, not yet tenured, Sociology and Human Services, Arts & Letters

Abstract

This project, "The Impact of Social Networks on Student's Choice of Major and Retention," focuses on the ways in which social networks affect the college experience of undergraduate students, and the choices that they make regarding their majors, their enrollment, and whether to transfer universities or not. It addresses an important and timely topic while at the same time advancing our knowledge of the ways that social networks shape individual action.

Importance

The National Center for Education Statistics (NCES) estimates that around 16.8 million students were enrolled in institutions of higher learning in the fall of 2017. But most recent NCES data indicates that, for students enrolled in 4 year institutions, only about 60 percent completed their degree at the same institution within 6 years. Within Science, Technology, Engineering and Math (STEM) majors, the situation is even more dire: the National Science Foundation estimates that nearly 1 in 4 STEM majors will have switched to a non-STEM major by the end of their second year in college. This is particularly an issue for women and underrepresented minorities (URM).

A significant body of research has tried to explain these trends, but that research tends to focus primarily on understanding the mechanisms through which students, especially women and URM, drop out of STEM majors. The metaphor of the "leaky pipeline" that is frequently used in this research centers the factors that push students, underrepresented groups in particular, away from STEM degrees. Substantially less attention is paid to factors that pull students towards other alternatives. I intend to use Social Network Analysis, an important and growing set of methods, to understand this push and pull and the way that it affects students' choices. Social networks are generally defined as social relationships that are able to convey resources, information and other benefits to actors. By focusing on the social networks of undergraduate students, this research would move beyond the traditional focus on formal relationships (advisors, faculty, staff) and include other types of relationships that are relevant to the student experience, in ways that are still largely unexplored.

Methodology

This research is a pilot study on social networks and student decisions. This pilot study will involve in depth interviews with University of North Georgia (UNG) students and a newly designed survey instrument to generate preliminary data in ways that can become the basis of a longitudinal study that would have great potential both in terms of applied policy suggestions and theoretical relevance. Besides

these efforts to gather new data, I also intend to analyze existing data, both from national surveys and UNG specific sources, to prepare manuscripts for publication.

Outcomes

The primary outcome of this project would be a grant proposal, to be submitted to the Education and Human Resources division of the National Science Foundation. This grant proposal would seek to obtain funding for a long term, longitudinal project to collect data at UNG, and lead to publications of both applied and scientific relevance. In addition to this grant proposal, the pilot study would also lead to at least two research articles to be submitted to peer-reviewed publications, and multiple conference presentations, both internal and external to UNG.

2020 Semester Presidential Incentive Awards

Semester Incentive Award

Multi-Lingual Euphonium Mastery Textbook

Dr. Adam Frey

Assistant Professor, Tenure Track, Music, Arts & Letters

Abstract

Recognized internationally as a leading specialist on the euphonium, I have spent nearly 20 years performing and teaching around the globe. As a master teacher, I have witnessed and helped the euphonium mature and become an important fixture in wind bands and brass festivals with specific growth in South America and Asia. I am requesting support to complete a textbook that will serve as a complete method of playing and studying the euphonium. It will encapsulate my teaching concepts and incorporate the exercises that I have developed. My current and previous students have enjoyed great success nationally and internationally using these techniques. This textbook, therefore, will become a significant and original reference for euphonium players around the globe.

This book will be a culminating project and address basic skills, advanced techniques, conceptual explanations, and musical exercises needed to master the instrument. Unlike current texts, which have been adapted or transcribed from the trumpet or trombone, this new book will address the specific pedagogical needs of the euphonium. This method will also include thorough explanations. It will not just be a set of routine exercises. This is a fault with many current texts, which lack a deeper connection to comprehensive learning and focus instead on the "gym mentality" associated with graded exercises. Finally, the book will be translated into Spanish, Portuguese, and Chinese in collaboration with various UNG programs and further refined with the input of leading South American and Chinese experts in the field. These partnerships will provide an opportunity for beta testing residencies in other country and will ensure that this text will be utilized internationally.

The completed text will be made available in low-cost print and PDF version versions. I have already been offered a contract by the two major publishers for low brass music the world over the Tuba Euphonium Press, founded by the International Tuba Euphonium Association, and Cimarron Music, which publishes more than 5000+ brass titles. Both have already offered to publish the final book. This innovative text will also feature video explanations and interactive chamber music tools, including music-minus-one (recording that contain all but one part performed by the textbook user) and play-a-long (recordings intended to guide the user on a selection. The textbook will be presented at the two major international conferences in May and June 2021.

2020 Semester Presidential Incentive Awards

Semester Incentive Award

Lakes v. Cecils: Family, Feuding, and Scandal at the Court of King James I

Dr. Johanna Luthman

Profesor, Tenured, History - Anthropology - Philosophy, Arts & Letters

Abstract

Brief description: I am working on a book manuscript entitled Lakes v. Cecils: Family, Feuding, and Scandal at the Court of King James I. The book examines the complex politics at the court of King James I of England (ruled 1603-1625) through the case study of a series of scandals ignited by a spectacular family feud between two powerful families, the Lakes and the Cecils. These scandals (which included accusations of attempted murder, adultery, abuse of powers of a royal office, abandonment, fraud, foreign attachments, illegal religious conversions, incest, impotence, oath breaking, property theft, physical assault, perjury, slander, and suborning witnesses, among other transgressions) reverberated through the second half of James's rule.

While previous works dealing with the period have mentioned some aspects of the family feud related to the scandals, to date no one has written an in-depth study of the entirety of the events and their meanings, although notable scholars has indicated a need for it. This book would thus be filling a gap in the historical knowledge of the court of James.

In addition, the book uses a micro-historical method, which means that it uses a smaller event or development as a window into a historical place and time, in this case England in the early 1600s. In essence, one can think of a work of micro-history as an octopus. The main story of the family feud and scandals represents the body of the octopus. In order to understand the story fully, I expand on areas like Jacobean foreign and domestic politics, religious developments, gender expectations, marriage law and practices, medical practices, property law, criminal law, and court proceedings. These expansions, explanations, and analyses represent the tentacles of the octopus. A micro-historical approach thus draws in the reader with a compelling and dramatic story, and while following the tentacles of that story the reader learns about larger developments of the period.

What will be done: During the award period (Spring 2021), I will complete the remainder of the first full draft of the manuscript. I have already completed most of the primary source research and have written rough drafts of three chapters. I have presented three conference papers on various portions of the project (based on those chapter drafts), and I will continue to write during the remainder of fall 2019 and throughout 2020. I am teaching in a Study Abroad program in London, UK in the summer 2020, and during free days I will go the British Library and the UK National Archives to get a few additional manuscript sources that I am missing. (See schedule.)

Anticipated outcome: My goal is to complete the manuscript and publish it in a press suitable for the topic. I have published with Oxford University Press previously and plan on sending them this proposal first. If that does not work out, I am also considering Manchester University Press, Little Brown, and Bloomsbury (all of which publish widely in British history.) Amsterdam University Press presents another

option, as they have a new series for Early Modern Court Studies and I have worked with their commissioning editor before when she was at a different press.

2020 Semester Presidential Incentive Awards

Semester Incentive Award

Intellectual Humility and Political Hostility

Dr. Glen Smith

Profesor, Tenured, Political Science & International Affairs, Arts & Letters

Abstract

The purpose of this project is to examine whether intellectual humility decreases political hostility. If awarded, this project will fund a nationally representative survey including experimental treatments embedded in survey questions. This project will include both quantitative analyses of close-ended survey questions, and qualitative examinations of open-ended responses. Results of this project will be disseminated in a book, journal articles, posts in popular media outlets, and conference presentations. The project will also fund an undergraduate student researcher who will gain valuable experience conducting high-quality empirical research. Additionally, this project will result in presentations to interested UNG faculty that provide suggestions on pedagogical approaches that are likely to increase intellectual humility, lower political hostility, and facilitate classroom discussions of controversial political topics. Altogether, this project will help advance scholarly activities, promote student learning, and help create a more open learning environment.

2020 Semester Presidential Incentive Awards

Semester Incentive Award

Remote Sensing to Assess Water Quality and Hydrologic Connectivity in the Southeastern United States

Dr. Amber Ignatius

Assistant Professor, Pre-Tenure, Institute for Environmental and Spatial Analysis, Institute for Enviornmental & Spatial Analysis

Abstract

Within the southeastern United States, social, economic, and technological transformations over the past few decades have led to significant alteration of the natural environment and associated water resources. The hydrologic systems of the southeast are essential natural resources and provide critical support for the continued growth of the region. However, ongoing modification of the landscape and consumptive water use have affected water quality and quantity in spatially dynamic ways. Across the hydrologic network, some water resources may remain pristine while others have become contaminated with pesticides, sediments, excess nutrients, and harmful algae. To complicate matters further, the location of water quality hotspots changes over time with seasonal fluctuations and variation in water use over multiple years. Traditionally, recurring in situ field sampling of water quality was the primary method of understanding fluctuations in our water resources over time. While field sampling provides essential data about our freshwater lakes and streams, these methods are often costly and can be inadequate due to limited temporal recurrence and a lack of spatially distributed information. Fortunately, advances in remote sensing technologies and cloud computing capabilities allow for vastly improved understanding of our dynamic freshwater systems. This research proposal intends to couple remotely sensed satellite imagery with massive cloud-based processing to analyze a decade of information regarding water quality throughout lakes and rivers of the southeastern United States.

Anticipated outcomes include creation of an innovative and reusable scientific research methodology, support for a subsequent external grant application, and promotion of student learning in cutting-edge research. This project will generate both Python and JavaScript programming scripts as part of the spatiotemporal water resources assessment using cloud computing and machine learning techniques. These batch-processing scripts will be generated with a flexible, interoperable design to allow for modification and examination of other variables of interest in the future. Generating open-source scientific code contributes to the broader research community. While this project examines water resources and hydrologic networks, the techniques could be adjusted to examine forest connectivity, species distributions, or other issues of interest. In addition, this research will allow for creation of an external grant application to the National Science Foundation Smart and Connected Communities program to include these remote sensing strategies within a real-time distributed sensor-based monitoring system. Furthermore, this work will incorporate undergraduate student learning through experience with cutting edge, highly marketable software that can increase potential employment opportunities.

2020 Semester Presidential Incentive Awards

Semester Incentive Award

American Anteliberalism: Literatures of Enslavement and Public Health

Dr. Stephanie Rountree

Assistant Professor, Pre-Tenure, English, Arts & Letters

Abstract

Whether the rise in mass shootings, FEMA response to super hurricanes, atrocities in immigration policy, or combating the opioid crisis; over the last decade, the heat of national discourses regarding public health and safety have long passed their boiling point. Common to each of these and many other such virulent debates is a civic faith in the U.S. government's responsibility to ensure the corporeal security and health of its subjects. This faith, however, is misplaced; its plausibility depends upon a nationalist narrative that elides latent feudal ideals built into the structure of U.S. liberal democracy, ideals intrinsic to its origins as an enslaving empire. In just the past few years, historians of U.S. capitalism have resumed studies on enslavement's original influence on the national economy. Although such research was first pioneered in 1935 by W.E.B. Du Bois in Black Reconstruction in America, it has been largely ignored by white academia until recently.

Within this emergent subdiscipline, almost no literary research exists that thoroughly examines how American authors have long intuited enslavement's influence on public health discourses under U.S. capitalism, even as such literary evidence precedes Du Bois's landmark study by more than fifty years. American Anteliberalism, my single-authored book proposed herein, remedies this gap by investigating a literary genealogy of public health governance in the U.S. as it proceeds from capitalist forms of bodily control first established in black enslavement. I am applying to the Presidential Incentive Semester Award for Fall 2020 to support completion of my book's final chapter and submission of the full manuscript to fulfill an advance book contract.

In American Anteliberalism, I interrogate historical U.S. public health policies and their origins in black enslavement through an intersectional approach in literary, gender, critical race, and disability studies. I historicize fiction and memoir published after Emancipation as written by a diverse range of American authors, including: Charles Chesnutt, Edwidge Danticat, William Faulkner, Carson McCullers, Jesmyn Ward, and Eudora Welty. Examining the public health initiatives these authors narrate, my book traces the cultural and human experiences of such post-1865 events as immigration and disease quarantine, health and hygiene curricula in higher education, mental health institutionalization, marriage prohibitions, waste infrastructure, and emergency response. Ultimately, American Anteliberalism introduces my concept of "anteliberalism" to articulate the nationalist triangulation of corporeality, capitalism, and citizenship in public health policy as revealed in the corpus of national literature.

Anteliberalism provides an interdisciplinary tool essential to trace how literary narratives have long intuited the genealogy of present-day neoliberalism, as its principles were first established in enslavement. In August 2019, The New York Times launched the 1619 Project re-examining the legacy of slavery to much critical and popular acclaim. This project of mainstream journalism reports much of the last six years of historical research in black enslavement's influence upon U.S. capitalism. This subdiscipline of economic history, dubbed "slavery's capitalism" in Sven Beckert and Seth Rockman's 2016 edited collection of the same name, underscores a cornerstone warrant of American Anteliberalism—that U.S. capitalism as it influences civic life in the modern-day is invariably shaped by its emergence through black enslavement. Research in slavery's capitalism has gained so much traction in scholarly and public discourses that excerpts from these studies have made their way into consequential national debates. For example, in January 2017, Senator Dick Durbin (D-IL) handed a copy of Carol Anderson's White Rage (2016) to former Attorney General Jeff Sessions upon his confirmation. On Juneteenth 2019, author and journalist Ta-Nahisi Coates cited Edward Baptist's 2014 The Half Has Never Been Told in a House of Representatives hearing on proposed H.R. 40 Commission to Study and Develop Reparations Proposals for African-Americans Act. Archival and historical research on enslavement's legacy in U.S. socio-economic life is in full swing. Yet, what remains unexplored is whether and how U.S. culture has understood such legacy over time as it impacted the daily lives of U.S. civilians.

Existing research on enslavement's legacy in American literature largely isolates representations of corporeal exploitation according to identity categories of race, gender, sexuality, or disability. Projects such as Kyla Wazana Tompkin's Racial Indigestion (2012) or Emily Russell's Reading Embodied Citizenship (2011), explore how capitalist ideals of U.S. liberal personhood influence narratives of blackness or disability, respectively. More recent works on capitalism in literature, such as Katharine A. Burnett's Cavaliers and Economists (2019), explore the influence of free market capitalism on the industry and content of literary production. Still other works investigate the ways in which health industries have evolved from enslaving logics to continue modern forms of subjugation as in Alys Eve Weinbaum's The Afterlives of Reproductive Slavery (2019).

American Anteliberalism intervenes in this existing scholarship by establishing a rubric centering U.S. public health discourses as they characterize policies ostensibly designed to preserve the health and safety of U.S. subjects. My methodological focus traces the ways that governing principles first established on the black enslaved body have evolved and expanded to impact Americans across identity markers of race, gender, sexuality, disability, and class. In this way, American Anteliberalism engages an intersectional approach that privileges a diverse range of human experience articulated in literature. These experiences may be disciplinarily-divided by historical period, place, and identity, but they are nevertheless deeply connected by a shared experience of anteliberal U.S. governance that advances a capitalist agenda through bodily controls relegating citizenship status. Ultimately, American Anteliberalism answers two questions: How have American authors since the nineteenth century understood black enslavement's legacy—not as an anomalous "peculiar institution," but rather—as a foundational set of logics that have organized U.S. public health policy over time? And further, how have

these policies evolved and coordinated over time to subordinate the bodies of all American subjects toward capitalist ideals of citizenship?

2020 Semester Presidential Incentive Awards

Semester Incentive Award

Physiological Effects (cardiovascular and cadence) in Corp of Cadets While Completing a Ruck March. , Physical

Dr. Gregory Palevo

Assistant Professor, Passed Pre-Tenure and on Track, Kinesiology, Education

Abstract

BACKGROUND: There is limited research on cadets participating in 'Pre-camp' which includes both physical and cognitive components. We plan to focus our research on loaded ruck marches (LRM). LRM's have been apart part of the military since the 18thcentury. Military ruck marches prepare soldiers both physically and psychologically for combat. Soldiers must be capable of carrying equipment and supplies over mixed terrain for a prolonged duration as part of military training and combat operations. Each load can include the uniform (1.4lbs), boots (.75lbs), MOLLE FLC Vest with pouches (4 lbs.), two full canteens (2 lbs.), ruck sack (35 lbs.), camel back with three Liters of water (6.6 lbs.), Kevlar helmet (3.6 lbs.), M16A2 plastic rifle (8.8 lbs.) and chest strap (1 lb.). The average total weight of the equipment can vary between 40 and 60 pounds. The standard 6-mile ruck march must be completed in 90 minutes or less to meet the qualifying standard. There are objective points that are awarded if you complete the 6-Mile in 70 minutes or less. METHODS: We plan to study fifty (50) cadets (both male and female). Participation must be on a voluntary basis to participate in this study. The study will include measuring body composition, cardiovascular, physical and cognitive functions during four different ruck marches. Distances will include 6, 8, 10 and 12 mile ruck marches. These will be paced at approximately 15-16 minutes per mile. Each cadet will wear the described loaded gear. One cadet will be asked to wear the K4b2 portable metabolic system (CosMed) which is used to collect oxygen consumption (VO2), carbon dioxide (VCO2) production, minute ventilation (respiratory rate) and respiratory exchange ratio (RQ) during all of the described ruck marches. Heart rate (HR) will collected using a Polar HR strap. Rate of perceived exertion (RPE) will be measured at the conclusion of each ruck march using the 6-20 RPE scale. Cadence and associated metrics will be collected using the Wahoo TICK X chest strap (Wahoo Inc.) during each of the described ruck marches. Three questionnaires will be completed at the beginning of the program and again at the conclusion of the program. Topics include 1. Self-efficacy, 2. Sport Confidence, and 3. Sports Nutrition. RESULTS: Phase 1 of the pilot study conducted in 2018-2019 on 10 cadets provided some valuable data. We are currently in progress of submitting this research for publication. The average HR measured during four different ruck marches ranged from 147-175 beats per minute, maximal HR ranged from 178-193 beats per minute, cadence averaged 120-140 steps per minute and RPE ranged from 12-17. The pilot study did not collect information from questionnaires but phase 2 of the pilot study will include all three questionnaires (awaiting IRB approval). CONCLUSIONS: The results from phase 1 of the pilot study were very compelling and we were able to track cardiovascular and physical function throughout the march. We learned what the physiological demands of varying distance ruck marches had on cadets (physical and mechanical). Future needs include studies on self-efficacy questionnaire, Vealey Trait Sport-Confidence Inventory (TSCI) and Nutrition for Sport Knowledge Questionnaire over the course of 'Pre-camp'. The physiological (cardiovascular and physical) responses

encountered were all normal and allowed our subjects to complete the LRMs on pace. We learned that pacing was an important aspect needed to accomplish the completion goal and our subjects were able to maintain a consistent pace that allowed them to finish at the prescribed time.

2020 Semester Presidential Incentive Awards

Semester Incentive Award

Development of a Smartphone Application for Remote Monitoring of Animal Health

Dr. Sudhanshu Panda

Profesor, Tenured, Institute for Environmental and Spatial Analysis, Institute for Enviornmental & Spatial Analysis

Co-Applicants - Dr. Jeff Turk, Professor and Director of IESA, Tenured, IESA,

Abstract

It is immensely essential to develop a smartphone application (APP)-based technology for resource-poor or any farmers that would use inputs from telemetric devices attached to on-farm animals and analyze the signals to notify the farmers regarding the animal health. It will improve livestock health and productivity by decreasing the loss of livestock to disease and parasitic infestation while increasing livestock values and marketability and, above all, increase the farming community economy. Lack of food security is a critically important challenge for developing resource-poor (R-P) farmers on communal and smallholder farms in the world including the United States, due to low quality and quantity of animal and fodder production, parasitic and infectious disease, and lack of farmer knowledge and expert assistance on pasture, animal health, and parasite management. Despite these challenges, there is an opportunity for sustainable intensification of livestock production by R-P farmers in the world through harnessing smartphone-based e-technology and modeling for precision fodder production-based animal health and nutrition management. R-P communal farmers represent the majority of farmers worldwide. Lack of resources prevents farmers from caring for their livestock in a sustainable scientific manner with timely information from knowledgeable animal scientists, agronomists, animal husbandry specialists and other animal health professionals. R-P farmers have smartphone access in extremely high proportions worldwide. The objective of this proposed research is to develop a server-supported automated Radio Frequency Identification (RFID)-based animal activity monitoring system to receive on-farm generated real-time data from transponders on animals for on-server analysis, interpretation, and training of Resource-Poor farmers to treat those animals through remote intervention of the animal health specialists. Ten animals (goats and cattle) will be identified from two locations, Fort Valley State University (FVSU), GA, USA's animal research farm, a farther location from UNG and a local cattle ranch in Flowery Branch, a farm of one of the PI's family. Eight goats (few healthy and few unhealthy) will be selected to wear the transponder during our project period. Two of the cows from our project PI's family ranch would wear the RFID assisted transponder collar. Data would be streamed to Microsoft Cloud (Azure) at UNG through the telemetry process and API coding and will be analyzed to develop the software for animal health monitoring based on the RFID based signals processed ASCII data. Finally, the software will be used to develop the smartphone APP so that farmers in the field will be contacted when the animal movement analysis confirms that it is sick. The APP will be tested and delivered locally to use. Later, new funding will be sought to improve the system (APP) to be universally used.

2020 Semester Presidential Incentive Awards

Semester Incentive Award

Dynamic Consent: Kant's Publicity for Food Justice

Dr. Yi Deng

Associate Profesor, Tenured, History - Anthropology - Philosophy, Arts & Letters

Abstract

My project is to use Presidential Semester Incentive Award to complete a book manuscript to submit for publication. The book aims to offer a coherent reconstruction of Kantian justice based of Kant's publicity principle, holding the practical aims of diagnosing injustices and prescribing individuals', states' and global institutions' responsibilities. The theoretical construction starts with my account of Kant's publicity as dynamic consent that differs from a series of commentators in that it reveals an inseparable relationship between Kant's moral and political theories. Its practical implications on issues surrounding food security, farmer solidarity, food safety, and global trade can entail moral expansions of Kant's cosmopolitan rights, republicanism, and a federation of free states as conditions for food justice.

In comparison with Immanuel Kant's well-appreciated moral philosophy along with his most influential three critiques, his legal-political philosophy has not received much attention until recent times, partially due to interpretive challenges from Kant's confusing and seemingly inconsistent political writings. However, in the last three decades, rapidly growing scholars of Kant's political thought, along with Kantian inspired Arendtians, Harbermasians, and Rawlsians, have revealed significances of Kant's political writings on thinkers up to present. A fair amount of secondary literatures on it shed lights on theoretical concerns and practical issues, such as just war theory, the international law of human rights, global institutional regulations, democratic and peace studies, welfare-related laws and institutions.

The recent prominence of secondary literatures on Kant's legal-political philosophy, primarily focusing on his Doctrine of Right (Rechtslehre) in the Metaphysics of Morals (1797), emphasizes distinctive groundings of his juridical-political philosophy. Numerous commentators declare that

the Doctrine of Right is independent of his moral theory, and Kant's universal principle of right is not derived from his principles of morality. However, I point out, under legalist and minimalist interpretations, an internal tension arises between an account of a state's central function in protecting of a right to private property and the demands of universality that are a part of Kant's account of international justice. Such a theoretical inconsistency might reveal the growing divide between domestic and global governance, and the current crisis of the postwar liberal international order, including the weakening global international agreements and institutions, say, the W.T.O. and the European Union. On the other strand, a comprehensive moral doctrine of justice fails to accommodate pluralism. In moments of crisis, could Kant's visions of justice still offer some insights upon the future of a diverse world?

With a consideration of above practical and theoretical challenges, in my book, I present a new interpretation of Kant's publicity principle, and aim to illuminate its substantial role in unifying Kant's political and moral theories and the transition from Kantian domestic to global justice. Specifically, my project's theoretical contributions include: 1) a provisional account of social contract theory as responses to continually changing, complicated, but practical issues, say, food security, food safety, farmer solidarity, and global trade; 2) a scholarly and philosophical contribution to the study of Kant by presenting a coherent reconstruction of Kantian justice, bridging the divide between his domestic and international justice; 4) an illumination of some key issues in political philosophy in a diverse world, including the relationship between justice and morality, citizenship, republicanism, and global governance. Besides, its practical implications on food issues will shed a new light on discourses of food issues, and prescribe responsibilities of individuals, states, and global institutions to address related injustices.