UNIVERSITY *of* WASHINGTON

Undergraduate Research Symposium   May 17, 2019 Mary Gates Hall

Online Proceedings

2S

THE POWER OF MEDIA REPRESENTATIONS AND DIGITAL ARCHIVES

Session Moderator: Carmen Gonzalez, Communication
JHN 175
3:30 PM to 5:15 PM

* Note: Titles in order of presentation.

The Impact of the Media's Rhetoric
Min Su Kim, Junior, Pre-Major
   Mary Gates Scholar
Mentor: Shelby Lunderman, School of Drama

Unwanted Invaders. The "Others". Deceitful Criminals. Victims of Injustice. These themes were not ripped from the headlines of newspapers describing immigrants today, but rather are found in newspapers from the 1880s and the 1940s to describe Asian-American immigrants to the United States during two separate times of crisis- Chinese Exclusion and Japanese Internment. This project explores how print media has constructed the accounts of immigrants by seeking the answer to the question: What rhetoric have newspapers used to portray Non-European immigrants to the United States? Articles from three time periods (1880s, 1940s, today) were selected and the rhetoric used within these sources were divided into four descriptive categories: Unwanted Invaders, The "Others," Deceitful Criminals, and Victims of Injustice. Quantifying the use of particular phrases within these categorical themes led to an analysis of the intersection between language and media, and how media repertoire has changed in regard to its identification and treatment of immigrants. Preliminary findings indicate that the description of immigrants by media sources has shifted over time, from "deceitful criminals" and "unwanted invaders," to "victims of injustice." This historical analysis of the common rhetoric used throughout these three separate times of crisis characterizes how media has continued to shape the lens that we view and have viewed immigrants through, which allows us to better understand and address the current state of the immigration crisis.

Oversexualized and Misunderstood: A Critical Look at Romani Representation in Western Media
Erin Smith, Junior, Art History, Western Washington University
Mentor: Monique Kerman, Art and Art History, Western Washington University

This presentation compares past and present portrayals of Eastern European Romani women in Western media to show an incredible amount of homogeny and misrepresentation within publications. It is no secret that the region of Eastern Europe has been plagued by civil war, political upheaval, racism, and genocide. Due to this climate, there has been a level of mystery and complexity that has wrapped itself around the area, perpetuating mythological and romanticized images of its largest ethnic group: the Romani. The Romani are the most heavily criticized and marginalized group in Eastern Europe, seen as intruders and outcasts to this day. These prejudices have deep roots in Western folklore, which paint similar pictures of Romani men and women consistently throughout. I am examining a specific archetype common in Western media, particularly film: the oversexualized Romani woman. I am using anti-Roma propaganda from The United States and Germany and comparing them to popular films from the 20th century. The films used are Paramount Studios' production of *Golden Earrings (1947)*, the James Bond film *From Russia with Love (1963)*, and Disney's adaption of Victor Hugo's novel *The Hunchback of Notre Dame (1992)*. The goal is, by looking at these representations, we can see critical connections between the way Romani women have been cruelly depicted in the last century in order reconstruct misconceptions and establish a framework that illustrates a more accurate and multifaceted story.

Content Analysis: Representation in the Media of UW Undergraduate Academic Affairs
Bryan Woodward Nakata, Senior, Communication (Journalism)
Mentor: Kirsten Atik, Undergraduate Academic Affairs

Programs in the UW's Undergraduate Academic Affairs support undergraduates from across campus as they engage in academic opportunities found through research, scholarship, leadership, service and other learning experiences. We connect with students, staff and faculty through our website and Facebook page. On these sites, UAA utilizes images to share scholarship opportunities, UW-related news, and the stories of students engaged with the activities of our programs. As we continue to work toward our diversity and inclusion goals with our communications, this research project's purpose is to discover the current state of representation in our media. How are we representing the range of students whom our university and programs serve? The research was conducted following standard content analysis coding procedure. We went through more than 120 images posted during the 2017-18 academic year and recorded the sex and race of subjects in the photographs. When possible, the information was recorded using self-identified information. Those with unavailable information were coded by three different coders. We specifically sampled the photographs shown in UAA Facebook posts and its website, which display and support the undergraduate experience while having the farthest consistent reach to students, staff and faculty of our media outlets. The results will measure the demographics of people shown in our media, assist in media planning for the following year and set a baseline for content analysis' in coming years.

Uncertainties in Science News: How Science Journalists Evaluate the Credibility of Scientific Studies
Emily Qiao, Senior, Informatics: Data Science
Mentor: Jessica Hullman, iSchool

Journalists play a vital role in science communication. As media coverage of science is the gateway for the general public to engage in scientific issues, journalists are responsible for presenting understandable and reliable scientific news. What journalists report on and the underlying tones of their depictions largely shape how lay audience perceive science. Peer-reviewed journals serve to be journalists' main source of information. The ongoing replication crisis in studies of life and social science, however, indicates that publication in a scholarly venue is not enough to acknowledge the validity of a study anymore. This leads to the question of how journalists determine whether the result of a study is robust enough to communicate to the public. The goal of this research is to understand how journalists interpret scientific findings and how uncertainties in scientific research impact journalists' decision-making. To understand these questions, I have interviewed journalists about their evaluation criteria of assessing the reliability of scientific findings in their depictions. I have also delivered surveys to draw insights about how journalists interpret quantitative reports from scientific researches, and how different factors, such as statistical significance mean or sample size, may affect journalists' judgement about the reliability of the studies they report on. This study, qualitative in nature, contributes to understanding how aware journalists are to uncertainties in science as well as to possibly suggesting ways to improve accuracy and reliability in science news.

Presenting Digitized Historical Manuscripts: A User-Centered Approach
Yogasai Gazula, Sophomore, Linguistics, International Studies: Asia
     UW Honors Program
Cheryl Wu, Freshman, Pre-Sciences
Simon Talusan, Freshman, Pre-Sciences
Darren Huang, Junior, Pre-Sciences
     UW Honors Program
Daniel Kim, Sophomore, Pre-Major (Arts & Sciences)
Jennifer Wang, Sophomore, Pre-Major
Chuangzuo Liu, Junior, Pre-Major (Arts & Sciences)
Corina Geier, Senior, Mathematics
Nicholas Verghese, Sophomore, Pre Engineering
Mentor: Annie Chen, Biomedical Informatics and Medical Education, University of Washington School of Medicine
Mentor: Walter Andrews, Near Eastern Languages and Civilization

The Svoboda Diaries Project works with personal diaries written at the turn of the 19th century, capturing over 40 years of the life, politics, and landscape of Ottoman Iraq. Written through the unique lens of a British steamship purser with a rich family history and connections in the area, these texts provide a unique insight into a locale on which there exists minimal literature for this time period. Undergraduate interns transcribe these diaries and develop open-source tools to make the texts available in a variety of formats. We are currently redesigning our website to better serve the needs of its various users, and our main question is: How do we realize the needs of prospective users when creating a digital platform for viewing historical manuscripts? Our current website is not sufficient in meeting the needs of the project's diverse users: historians/researchers, contributors, and the general public. Therefore we intend to create an engaging and interactive user interface. At its core, the Svoboda Diaries comprise a personal narrative. We also intend to infuse a storytelling approach to present these unique documents in a larger political and historical context, and allow the user to explore them in different ways. We utilize a variety of user-centered research and design methods, such as conducting user interviews with domain experts and other interested individuals, creating prototypes, and conducting pilot usability sessions to refine the website.We anticipate that our website redesign

will allow users greater access to explore the diaries. In addition, the redesign will draw attention to the most important aspect of the website: the diaries themselves, and the fascinating and valuable accounts within them.

Record Linkage and Multiple Imputation across Geospatial and Demographic Data on Fatal Police Encounters

Vaughn Isaac Johnson, Senior, Statistics
Mentor: Martina Morris, Statistics and Sociology

Every year, hundreds of people die from fatal police violence, and there is no official repository that records this information. Over the past decade several crowd-sourced efforts have emerged to fill this gap, creating online repositories that compile the geospatial and demographic information of victims of fatal police force. Our team is working with three of these. The oldest and largest data set has information dating back to 2000, and contains roughly 17,000 observations, while the other two date back to 2013, and closer to 4,400 observations. There is missing data in all of the repositories, and the missingness levels are particularly high for the race of the victim, a variable of interest. We know a priori that there is substantial overlap in the cases covered by these three data sets, so we hope to use record linkage methods to combine the information across the data sets to recover or impute the missing data. Previously, we harmonized the three data sets, so the problem of inconsistencies in variable names, formatting or other irregularities has been addressed. We now have four sequential, dependent goals. Our first goal is to perform record linkage within each data set to eliminate duplicate records. Our second goal is to perform record linkage across the three data sets, using the victim's state as a blocking key to reduce the computational burden. Our third goal is to address the remaining missing values through statistical imputation. Our final goal is to provide a public repository with a clean unified data set, and the code needed to reproduce this from the original raw data. This will be paired with a corresponding browser-based public tool for data exploration in the form of an online R Shiny App.

Meme Bans and Link Taxes: Discourse and Public Understanding of Digital Copyright

Hannah Noele Jolibois, Senior, Public Health-Global Health, International Studies
    Mary Gates Scholar, UW Honors Program
Mentor: Margaret O'Mara, History

The Internet fundamentally altered what copyright means and how it functions in society. Now anyone who downloads music or uploads videos to YouTube is deeply implicated in the complex set of laws known as copyright. Despite this daily interaction, the public at large is unaware of or even apathetic towards the current copyright system. The question then is why is there a gap between public opinion and understanding of copyright and the copyright legislation itself? To answer this question this research investigates the copyright discourse across time as the internet and thus digital copyright expanded. To do this a discourse analysis was conducted surrounding three different pieces of proposed copyright legislation: The Digital Millennium Copyright Act (DMCA), the Stop Piracy Online Act (SOPA) and the EU Copyright Directive. The analysis included the bills themselves, congressional/parliamentary hearings, newspaper reporting, statements by supporters/opposition, and online discussion forums. These data were then coded to gauge what the public was informed of and how they were interpreting digital copyright legislation and the impact it would have. Preliminary findings indicate that public awareness of copyright and copyright violations has grown over time, as has concern and involvement by the public in copyright debates. These findings show that as the Internet became more ingrained in people's day to day lives copyright or at least concern over copyright legislation and the impact it would have on the Internet also became more prevalent. Understanding this discourse and how various parties are interpreting copyright is important because in the digital age copyright is a fight over who gets to control, alter, create, and access content and information. In a world that relies on access to information, the importance of this decision should not be underestimated.

Compromising Science for Political Gain: Analyzing the Use and Misuse of Scientific Information on Twitter

Daniel Jacob Snitkovskiy, Senior, Computer Science, Informatics: Data Science
Mentor: Jevin West, Information School
Mentor: Lovenoor Aulck, iSchool

The 2016 United States presidential election illustrated the pervasiveness of foreign information campaigns - state-backed operations aimed at influencing political discourse within a target nation state. Twitter has uncovered several such campaigns and has released datasets containing tweet activity of over 4,000 accounts identified as information operatives. The work presented here utilizes these datasets to study the interactions these campaigns have with science, scientific discourse, and the broader public understanding of science. A primary objective of these campaigns is to weaken a foreign adversary through information warfare. For example, one strategy might be to reduce vaccination rates. One way this is accomplished is by sparking debates in politically controversial scientific claims, such as the safety of vaccines, by referencing pseudo-scientific and predatory literature. To understand the extent of this strategy, we utilize document clustering to measure the concentration of engagement - total tweet frequency - around these controversial topics, comparing against a baseline random sampling of tweets from the Twitter real-time data stream. In addition to this, we per-

form exploratory analysis to detect references to both legitimate and illegitimate scientific articles, leveraging data from the Web of Science (WoS), a bibliographic database of more than 50 million papers across all disciplines since the mid-19th century. We expect the proportion of tweets mentioning controversial scientific topics to be higher in the Twitter data disclosure than in the random sampling of tweets. Of those tweets mentioning science related issues, we expect a small proportion of tweets to be direct references to scientific papers, which will likely be studies that are either controversial, disinformative, or directly related to foreign policy interests. Our goal for this study is to assess the strategic role that science disinformation plays in these campaigns and to contribute to the growing body of research aimed at detecting and preventing misinformation.