Re-Membering Time: Reimagining Deleuzian Memory through Literature and Theoretical Physics
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In this research, I address an intersection which up until now has been overlooked: that of literary theory and theoretical physics. The research intersects on three levels: Gilles Deleuze’s theory of time and memory in his work Cinema II, novelist W.G. Sebald’s piece Austerlitz, which traverses the same ground, and finally, physicists Stephen Hawking and Roger Penrose’s theories of time in relation to the ’Big Bang’. The catalyst for this collision of the conceptual and the literary is rooted in what is this project’s attempt to re-imagine Deleuze’s theory of memory, which in its current state lays at risk of countering the philosopher’s own claim and becoming a linear depiction of time, through the lens of theoretical physics in order to maintain its applicability to representations of non-linear time in literature through the use of memory. To achieve this, I first look into the inherent linearity of Deleuze’s current depiction of time: if, as the philosopher claims, memory resembles a layered cone whose base layer represents the beginning of time, then all layers that proceed it will be caused by its predecessor, thus giving us a linear image of time. This being the case, Hawking’s conception of the beginning of time in the ’Big Bang’ as arising out of a point of temporal vacancy, essentially resembling a black hole, can be applied in order to restore Deleuze’s claim of non-linearity. Here, we have a way of envisioning causal time which is not inherently linear, given that it does not arise from a single moment in time, but rather from a vacancy of time, meaning that all proceeding events can be drawn back to its predecessor, but will inevitably be traced to this vapid origin which denies it of its caustic root, and thus, linearity.

Undergraduate Humanities and Technologies Majors Working Together: Researching and Publishing the Svoboda Diaries
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The Svoboda Diaries Project works to research and digitally publish the 45 diaries of Joseph Mathia Svoboda, an Iraqi businessman of Central European descent living in Baghdad in the late nineteenth and early twentieth century. The diaries provide a valuable insight into the economic and social life of the time, as well as local weather patterns and the history of disease outbreaks. In conjunction with its parent project, Newbook Digital Texts in the Humanities, interns and staff further work toward increasing readership of and access to lesser known manuscripts like the Svoboda Diaries by developing a systematic and programmatic workflow to transform handwritten, or otherwise paper-format source texts, into digitized publications available for web or print formats. Tools include scripts and programs to transform transcriptions collected in a standardized format into TEI-XML documents, which are in turn converted to HTML for web or LaTeX for PDF publication. Through continued development, Newbook hopes to improve and facilitate access to this open source software to allow other similar textual projects to progress their own research and goals more seamlessly and thoroughly. The project allows undergraduates the uncommon opportunity to work directly in research, giving interns hands-on experience in both technical and editorial work. One of the
project’s most distinctive features is its combination of editorial, historical research and technical development of relevant tools and platforms to process and display texts in a digital format. Each side of the project does not work in isolation. On the contrary, undergraduates in the humanities try their hand at programming and learn about digital textual processing, while students in technical fields are introduced to historical and humanities research, the types of problems and factors one must consider when working with a primary source text to maintain its authenticity, and the value of historical inquiry.

Natural Identity
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Mentor: Barbara Miller, Art History, Western Washington University

Lawren Harris, a Canadian artist practicing in the 20th century, banded together with six contemporaries in hopes of forming a nationalistic artistic identity based in emotive expressions of nature. At first glance, their works resemble the Fauves. The vibrant patchworks of color found in Georges Braque, André Derain, and Henri Matisse’s abstract landscapes. Expressions of nature. At first glance, their works resemble the Fauves. The vibrant patchworks of color found in Georges Braque, André Derain, and Henri Matisse’s abstract landscapes. Rather than abstraction and European aesthetic debate, the Canadian Group of Seven’s works are grounded in the environment; icebergs, frozen tundras, and isolated bays populate their oeuvre. Fast forward to the 21st century, Edward Burtynsky eerily reprises their program of study. Burtynsky’s work deals with manipulations of environs, yielding jarring and sublime chromatic depictions of our world. Through diachronic comparison of our subjects I seek to place Burtynsky in a next generation of Canada’s Group of Seven. Burtynsky expands his representations of nature beyond his Great White backyard to a global reality without the stigma of environmentalism. I look at how color resonates within these works and inevitably a broad political environmental culture.

The Influence of Zen Buddhism on John Cage
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In this paper I look at the influence of Zen Buddhism on art. In America, interest in Zen Buddhism started to grow after World War II. During that time, in the late 1940’s and 50’s, Daisetz Teitaro (D.T.) Suzuki, a renowned Buddhist philosopher, began traveling around America to give lectures on Zen Buddhism. John Cage attended his lectures and took courses from him when he taught at Columbia University and was profoundly influenced. Cage resonated with the Suzuki statement “Zen is quite chaotic if you choose to say so” and based the rest of his artistic career on the logic within it. Following Suzuki’s teaching, Cage began to incorporate chance and silence into his music and wrote one of his more famous pieces, 4’33”. This piece is about Zen and the art of silence as being chaotic; it fully exemplifies the influence of Suzuki’s Zen Buddhism. In my argument, I consider the writings of Suzuki and his influence on Cage and how silence is never silent.

Non-Disclosure among Couples Coping with Cancer: A Mixed Methods Investigation
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Mentor: Shelby Langer

Communication deficits are not uncommon among couples coping with cancer. Interactions characterized by non-disclosure of cancer-related thoughts and feelings have been associated with psychological distress and relationship dissatisfaction. A variety of questionnaires have been developed to assess communicative behaviors, including a measure of protective buffering, defined as hiding concerns from one’s partner, denying worries, concealing discouraging information, and yielding to avoid disagreement. This measure has not yet been subject to validity testing. The present study used mixed methods to examine non-disclosure among couples in which one person had undergone hematopoietic stem cell transplantation, a rigorous treatment for hematologic malignancies (cancers of the blood or bone marrow). Fifty-nine spouses/partners were asked to talk out loud for 10 minutes about their thoughts and feelings regarding the transplant and their experiences as caregiver. Transcripts of these audiotaped sessions were subject to deductive coding using Dedoose software. Aims were three-fold: (1) to examine base rates of non-disclosure mentioned by partners (for example, withholding bad medical news from the patient or others) and (2) motivations for such (protecting self or others from personal upset); and (3) to examine associations between rates of qualitatively-derived instances of protective buffering and patient- and partner-reported protective buffering, psychological distress and relationship adjustment per questionnaire-based indicators of these constructs. Partners who score high on the protective buffering scale are expected to cite more instances of non-disclosure in describing their transplant-related experiences and to report higher levels of distress and relationship maladjustment. Findings will provide important psychometric information regarding this increasingly utilized scale, and capture unique information about communication not easily captured via traditional self-report measures. Better understanding of the association between communicative processes and individual and relationship functioning can inform the design of interventions to improve communication and optimize patient recovery.
Respeak: A Crowdsourcing Platform for Speech Transcription
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Mentor: Aditya Vashishta, Computer Science and Engineering
Mentor: Richard Anderson, Computer Science & Engineering

Transcription of audio files is demanded by a wide variety of customers. Television stations use audio transcription to display live captions of programs, universities provide subtitles for recorded lectures, and business professionals seek written records of meetings. However, manual transcription via typing is not only slow, but also expensive; trained professionals typically charge 1 to 2.50 USD per minute of recording. The alternative, Automatic Speech Recognition (ASR), while efficient, tends to have a high recognition word error rate (WER). Ambient noises and unclear speech in raw recordings present difficulties for ASR, leading to inaccuracies in transcriptions. WER is also high when ASR is performed on languages commonly spoken in developing countries and even on localized accents of English. Our solution, Respeak, is an Android mobile application that combines the benefits of human intelligence and ASR technologies using crowdsourcing. Large recordings are first segmented into small pieces (of several seconds length) that can be easily remembered. These segments are then distributed to Respeak users, with multiple users receiving the same segment. After a few minutes of training the Respeak ASR system to understand their voice, a user is then presented with a segment and asked to “respeak” what they heard as clearly as possible. The new recording is transcribed by ASR and finally merged with the results from other users who also respoke the same segment. Assuming that errors are randomly distributed, merging the outcomes from different speakers improves the overall accuracy as the correct word will be recognized by ASR for the majority of users. Users are given a monetary reward based on their own accuracy relative to the final result. We expect that by taking a crowd-based approach, Respeak will be able to lower costs and lend more accuracy to ASR transcription methods.

A Qualitative Study of Teachers’ Perspectives on Family Literacy Practices: Discovering the Outcomes for Literacy Learning of Children from Diverse Demographic Backgrounds
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Mentor: Mary Clevenger-Bright, Early Childhood & Family Studies

A recent Child Trends study pointed to a huge and continually growing body of research supporting the importance of home literacy habits, parenting practices and how these support early literacy programs and children’s academic success. There hasn’t been a great deal of experimental studies to support these findings across multiple settings, and with lots of different groups of children. As a UW teacher education program teacher candidate, I will be doing my student teaching in a poverty impacted public school in Seattle beginning in September 2015, and so this makes me particularly interested in how these questions could impact low income students and families in poverty-impacted and high risk communities and schools. I’ve designed a qualitative case study that focuses on teachers’ perspectives on their students’ family literacy practices and how that impacts their literacy learning in the classroom. I collected data through face to face and phone interviews with eight teachers. The questions my study is asking are: How do teachers in schools that reflect different demographic characteristics describe the opportunities and barriers to family literacy practices in their classroom community? How can findings from this case study inform my own development of a family literacy program as an early elementary teacher? I expect that my interviews with teachers will inform our discussion around the impact of family literacy practices on students’ literacy learning. I expect these interviews will affirm the importance of parental involvement through family literacy practices and the greater impact of the relationship between a child’s literacy and learning development and the home environment. My research will help inform my own, and other early elementary teachers’ planning of a literacy instruction curriculum and how to better support relationships between students and families around literacy learning, especially with families of diverse demographic populations.

"After All This Becomes Lit": Becoming and Performativity in Contemporary English-Language Native Poetry
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Mentor: Dian Million, American Indian Studies, University of Washington, Seattle

Contemporary Native poetry often takes colonial history as its subject matter in an attempt to unsettle accepted narratives about Indigeneity and Indigenous peoples, but sometimes it must do so in the language of the settlers. In this project, I focus on three English-language poems—“Simple Four Part Directions for Making Indian Lit” by Gordon D. Henry, “Lean Cuisine” by Sherman Alexie, and “The Devil’s Language” by Marilyn Dumont—written by Indigenous North American poets who actively rework conventions of the “enemy’s language” to make poetry viable for participation in decolonizing processes. I argue that one way in which we can understand these Native poems to be subversive in their use of a non-Native language is by reading them not only as describing and reiterating facts but also as making “counter-texts”
and enacting their own histories and epistemologies—that is, as texts that are in the process of becoming. I engage with the theoretical apparatuses of “becoming” proposed by the three different poems in conjunction with J.L. Austin’s formulation of performativity in order to highlight the world-making potentials of poetic language. Through this analysis, I explore the ways in which poetry can be mobilized to repurpose the settlers’ language and, in turn, interrogate the textual basis of colonial realities.