SMU | Interdisciplinary Institute
DEDMAN COLLEGE OF HUMANITIES & SCIENCES

Research Clusters 2016-2017

Life Challenges and Human Resilience

Nia Parson, Anthropology; Lorelei Rowe, Psychology; Maria del Pilar Melgarejo, World Languages

This cluster explores how people employ healing and/or spiritual modalities outside of or in concert with western biomedical health interventions to cope with challenging life circumstances, ranging from extraordinarily challenging events to the various "ordinary" challenges of contemporary life. Such practices include meditation, mindfulness, curanderismo, prayer, and acupuncture, among others. We aim to develop specific and focused research questions and methodologies for understanding how, why and to what effects people use non-biomedical therapies to cope with both major and minor life challenges and the role of these therapies in human resilience and to apply for external funding to conduct research.

Medieval Matters

Bonnie Wheeler, English; Shira Lander, Religious Studies/Director of Jewish Studies; Danielle Joyner, Art History, Meadows

The "Medieval Matters" Research Cluster plans a year-long initiative to reinvigorate the strong, diverse, and engaged community of medievalists among the faculty and students at SMU and in the metroplex area. As a working group, we will examine fresh methodological approaches to the study of the Middle Ages with the goal of generating opportunities for new collaborative teaching and research across disciplinary boundaries. Among other possibilities, we envision a fully vetted book and digital project (with national and international contributors) that advances current understandings of the uses and limits of transdisciplinary teaching/research in the Middle Ages.

Looking at Animals/Thinking About Animals

Amy Freund, Art History, Meadows; Jean Kazez, Philosophy

This cluster brings together students and faculty across the humanities and sciences to engage with foundational and current research in the field of human/animal studies. The goals for the cluster are to reveal existing connections between faculty and student research and teaching, to develop a common set of readings useful for everyone's research and teaching, and to help faculty revise existing courses and develop new ones in the field, thus creating a thematic grouping of courses in human-animal studies across campus.

Operations Research and Statistics Towards Integrated Analytics

Tony Ng, Statistical Science; Halit Uster, Lyle School of Engineering, EMIS;

Statisticians and operations research analysts play important roles in analytics and contributes in the three major pillars of analytics—Descriptive, Predictive and Prescriptive analytics. In this Research Cluster, we aim to bring statisticians and operations research analysts together to achieve better teaching and research towards integrated analytics for the arts and science of decision-making in the presence of big data available through modern information technology.

Biopsychosocial Research: In Interdisciplinary Initiative

Pia Vogel, Biology; Thomas Ritz, Psychology

The Biopsychosocial Research Cluster brings together faculty from Psychology, Biology and Chemistry to use their combined expertise to discover molecular events linked to psychological, social, physical or medical challenges of humans. The *biopsychosocial* model of health incorporates, in its ideal conceptualization, processes on multiple levels, including biochemical and cellular processes, physiological function, psychological levels of behavior and experience of the individual, family and peer-group processes, as well as levels of the society, community and physical environment. The cluster has been active for a couple of years. The cluster research has been successful and resulted in several papers published over the last years, as well as in obtaining SMU a Dean's Research Council grant to two of the members. The group plans to continue meeting as a research cluster for AY2016-17.

Thinking Digitally: Understanding the Data in Humanities Disciplines

Dennis Foster, English; Katherine Engel, History

Over the past two decades, innovative researchers in a wide range of humanities disciplines have begun to develop research projects that take advantage of digital tools. As a consequence, the humanities as a whole have seen a shift in what counts as a knowable object of study, expanding the humanities into new and often multi-disciplinary fields. The goal of this cluster is to read and discuss some of the recent theoretical and practical work being done in the Digital Humanities with the goal of creating a network of SMU scholars who can create and sustain digital projects.

GIS at SMU

Klaus Desmet, Economics; Mark McCoy, Anthropology; Jessie Zarazaga, Lyle School of Engineering

This Research Cluster brings together faculty, graduate students, and staff who are interested in GIS (Geographic Information Systems, for mapping and spatial analysis). In recent years the greater availability of spatial data has led to a growing interest in GIS across a variety of fields, including anthropology, art, earth sciences, economics, engineering, human rights and the humanities. The goals of the cluster include 1) connecting SMU faculty and students who may be working independently in the area of spatial analysis, and sharing the different uses and potentials of GIS across their fields; 2) identifying specific needs for SMU faculty training in GIS tools; and 3) helping the library and the Ford Building in setting up facilities and support strategies for GIS at SMU

Ancient Biomolecules

Louis Jacobs, Earth Sciences; Ann Horsburgh, Anthropology; John Wise, Biological Sciences

Advances in analytical techniques applied to biomolecules and their residues have opened deep time and the evolution of life to a wide range of research questions relating to phylogeny, biogeography, extinction, paleoenvironments and paleoecology, domestication, and other significant topics across the spectrum of Archaeology, Biology, and Earth Sciences. This research cluster will facilitate communication among interested parties at SMU through discussion sessions and will catalyze specific research projects. As an initial research focus, we have begun discussion of protocols and experimental methods to determine the closest living relatives of desmostylian mammals (an obscure group of unknown affinities; it is the only order of marine mammals to go totally extinct), testing the hypotheses that desmostylians are sister to elephants, to sea cows, or to horses on the basis of type I collagen characteristics found in fossil bone.

This is a clearly defined test case that will allow investigation of more general questions concerning the potential of a variety of biomolecules and protocols that will maximize extraction of useful data

Interdisciplinary Approaches to Inebriation, Addiction and Recovery Literature

Bruce Levy, English

This research cluster brings together scholars and professionals working both directly and indirectly within the areas of inebriation, addiction, and recovery. In spite of the strong contemporary interest in these issues, approaches to them issues have generally failed to foster conversations across the disciplines and the professions, with the major focus isolated within the realm of clinical psychology. This research cluster will address this shortcoming by examining these issues from historical, literary, anthropological, legal, and medical perspectives. Participants will come from a cross-section of professions, local institutions and disciplinary practices.

Linking the Mathematical and Biological Sciences

Brandy Stigler, Andrea K. Barreiro, Mathematics

In this cluster, we will explore interdisciplinary connections between the mathematical, physical, and life sciences by conducting informal seminars and discussions led by cluster participants. We will use an on-campus retreat as a forum for strategizing further steps for interdepartmental collaboration.

Cognitive Science

Justin Fisher, Philosophy; Alan Brown, Psychology

The Cognitive Science Cluster sponsors a series of talks and other activities intended to draw together various people who do research on cognition at SMU. Cognition is information processing that occurs in brains or artificial systems, including gathering information from the environment (perception), drawing further conclusions (reasoning and inference), storing away information for future usage (learning and memory), using information to guide further activity (planning, decision making, and action), and other mental activities involving that information (emotion, creativity, conscious experience, and aesthetic response).

Postsecularism

Denise DuPont, World Languages; Beth Newman, English

What is postsecularism? How is this relatively new concept reshaping thought in different disciplines? What are the political, cultural, legal, and social implications of attempts to dislodge secularism from its place of pride in contemporary societies and epistemologies? What would it look like to engage in the “complementary learning process” that Habermas calls for—one in which religious traditionalism and secularism “accept an interpretation of the relation between faith and knowledge” that would enable them to live together? At our monthly meetings, we will explore these and other relevant questions. We are eager to include members from multiple disciplines as well as from diverse cultural and faith traditions, including no faith at all, to explore a topic that has been reshaping the humanities, the social sciences, and theology.

Mapping Human Rights Sites in Dallas

Dr. Rick Halperin, Director, Embrey Human Rights Program; Edward Gray, DLS candidate, Simmons School; Jennifer McNabb, DLS candidate, Simmons School

According to Michael Philips in his book, *White Metropolis,* Dallas has created a series of false narratives around its history, leading to an obfuscation of human rights abuses, especially where race is concerned. Dallas has not come to terms with its true history, which has had repercussions into the present and recent past, from the Kennedy assassination to current injustices in racial and economic inequality to Dallas's part in the incarceration epidemic. All over Dallas there are sites redolent of an untold past. We propose a project to map the human rights sites in Dallas through an interdisciplinary approach with a prominent educational component. This proposal envisions partnerships with the new Dallas Holocaust Museum, as well as area high schools (especially Booker T. Washington), and community colleges.

Creative Intersections in Interdisciplinary Education: Making Connections among Various Sectors of Creativity Research

M. Carmen Smith, Director of education, meadows Museum; Ige Guobadia, DLS candidate, Simmons School; Gina Weber, DLS candidate, Simmons School

Trends in education are pointing in an interdisciplinary direction. But what does "interdisciplinary" mean? SMU recently inaugurated the third Doctor of Liberal Studies program in the world, building on its interdisciplinary Master's Program. Creativity research approaches the innovative, novel, and valuable in multiple fields, encompassing education, psychology, leadership and organizational management, and many others; it is by definition an interdisciplinary research endeavor. This cluster will look at ways in which creativity research can inform and enrich interdisciplinary education at SMU, and the potential ripple effects of this type of education in the wider community.