Apr 18th, 9:00 AM - 9:50 AM

TCU: Honors Research Across the Disciplines

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Claire Carter
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See next page for additional authors

Presenter Information
Amal Khan, Christian Nguyen, Hyong Nguyen, Martin Ptak, Claire Carter, and Emma Holland

Panel Title: TCU: Honors Research Across the Disciplines
Traditional panel presentation *with technology* needed: speakers and projector

Sponsoring Faculty Member
Wendy Williams
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Student Presenters
Amal Khan
Christian Nguyen
Huong (Heidi) Nguyen
Martin Ptak
Claire Carter
Zoe Nelson
Emma Holland

Academic Affiliation
Texas Christian University
We understand that submitting this research functions as a contract; We promise to attend and present at the conference should our submission be accepted.

Author's Name: Amal Khan
Author's Email: amal.khan@tcu.edu
Title: Mercury Contamination in Terrestrial Spiders along the Trinity River
Academic Affiliation: Biology
Abstract:
Mercury (Hg) is a toxic environmental contaminant found in all waterbodies on earth. Aquatic emergent insects, such as mosquitoes, can transfer Hg from waterbodies to terrestrial ecosystems. Terrestrial shoreline spiders consume aquatic emergent insects and may become contaminated with Hg. This may pose a risk to birds consuming terrestrial spiders. This study focuses on Hg contamination in long-jawed orb weavers, a common shoreline spider, along two forks of the Trinity River—Clear Fork and West Fork. Hg contamination in long-jawed orb weavers has rarely been assessed in rivers and only once in the Trinity River. The objectives of this study are 1) evaluate the relationship between the size of the long-jawed orb weavers and their MeHg contamination and 2) evaluate if the MeHg concentrations in the spiders pose a risk to songbirds. We collected 206 long-jawed orb weaver spiders: 101 spiders along the Clear Fork and 105 spiders along the West Fork of the Trinity River in Fort Worth, TX. I used a Direct Mercury Analyzer to determine the total Hg concentration of the long-jawed orb weavers. All

spiders were contaminated with MeHg. Spiders along Clear Fork had higher MeHg concentrations than spiders along West Fork. Mercury in spiders increased with spider size in the Clear Fork of the Trinity River.
5-8 Keywords: mercury, methylmercury contamination, long-jawed orb weavers, Trinity River

Author's Name: Christian Nguyen
Author's Email: thien.n.nguyen@tcu edu
Title: Why Do We Love Celebrities? -A Search for Success Recipe and Effects on Internet Searches
Academic Affiliation: Marketing
Abstract:
This research aims to (1) provide a deeper understanding on how traditional celebrities and influencers initiate and sustain one-sided relationships with fans on SNSs through a variety of behavior and conversational cues and (2) analyze the impact that endorsed contents on SNSs have on brand awareness, through Google search trends.
5-8 Keywords:
parasocial relationship, celebrities, influencers, celebrity endorsements, Google search.

Author's Name: Huong (Heidi) Nguyen
Author's Email: huong.t.nguyen@tcu.edu
Title: Trust in the Sharing Economy - the Case of Uber & Self-driving Cars
Academic Affiliation: Neeley School of Business
Abstract:
A new concept called the "sharing economy" gives rise to the shift from the mentality of "What's in it for me" to "What's in it for us." (Bostman, 2011). Consumers now share their idle resources via the facilitation of technology. The main, and potentially most important, factor that facilitates the sharing economy is trust. Joe Gebbia, the co-founder of Airbnb, shares in his TED talk that one of the initial challenges of Airbnb was to create trust among strangers and that he had to design Airbnb in a way that build trusts. Trust is an indispensable part of the sharing economy that encourages users to provide and receive services from strangers.
To specifically examine consumers' trust in this environment, the paper only focuses on Uber, the major player in the automobile and transportation industry. This industry is also being changed by the introduction of self-driving cars. As self-driving car manufacturers are collaborating with sharing economy platform providers to transform the industry, it is important
5-8 Keywords: sharing economy, millennial consumers' trust, uber, self-driving cars, trust in technology, technology humanness

Author's Name: Martin Ptak
Author's Email: martin.ptak@tcu.edu
Title: Deus Ex Machina

Academic Affiliation: Biology
Abstract:
The purpose of this research is to examine the connections between trauma physician care and patient satisfaction with reference to values and instances of empathy. The research for this paper was conducted in the form of collecting statistical and qualitative data from primary sources such as thesis's, articles, and other research publications. By understanding how empathy plays a major role in the success of patient healing, this new area of study within medicine can open opportunities for delivering better care, as well as preparing current and future physicians for work-related hardships and the effect it can have on their performance.
Keywords: Empathy, Trauma, Physician, Compassion, Fatigue, Patient, Connection

Author's Name: Claire Carter
Author's Email: Claire.e.carter@tcu.edu
Title: Disability Through the Lifespan: How Empathetic Is Our Society?
Academic Affiliation: Speech Pathology
Abstract
Disability presents itself in various ways through the lifespan. Before birth, disability is a doubt, or a fear, but in general, it is unwanted. Prenatal testing is an example of such fear being acted upon through potential abortions. After birth, disability is an inhibitor, or a tool used for division. Through the lifespan, disability can be a piece of an identity that society can use against an individual. On the other hand, society can use disability through employment and education as an avenue for inclusion and empathy. As seen through special education legislation, society has advocated for disability rights. Empathy and disability does not simply mean to tolerate difference, but rather embrace difference.
Keywords: advocate, disability, difference, education, employment, inclusion, prenatal testing

Author's Name: Zoe Nelson
Author's Email: z.nelson@tcu.edu
Title: Lemonaid
Academic Affiliation: BFA Graphic Design, College of Fine Arts
Abstract (1 paragraph):
This project involved the marketing and branding of an online learning platform for people to learn how to adult. This was accomplished by extensive research about educational companies with a web component. Competition and the existing market was evaluated. In addition, the historical foundations of art and design related to motion, light, video and web was researched. The final result included a website design, template for videos and posts, an advertising campaign as well as the branding and collateral of the company overall.
5-8 Keywords: Learning platform, higher education, web component, design, branding, advertising

Author's Name: Emma Holland
Author's Email: emma.holland@tcu.edu
Title: Alchemi
Academic Affiliation: Graphic Design, BFA, College of Fine Arts
Abstract (1 paragraph): The population of the earth is growing at rapid speeds. By 2050 The United Nations predict the population of the earth will be 9.6 billion. In order to keep up with this population growth the rate of food production will have to grow by roughly 85% rather than the predicted 52%. Additionally, farming currently consumes about 80% of the U.S.'s fresh water. Wouldn't it be great if there was a company able to combat overpopulation, fresh water waste, the carbon footprint associated with food transportation, food deserts and eliminate the use of chemical fertilizers and harmful pesticides? Aeroponics allow for the growth of produce through a fine nutrient mist without the use of water and harmful pesticides.
5-8 Keywords: growth, resources, education, waste, aeroponics, e-commerce, futuristic