INF 397C - Understanding Research (28375)

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Teaching Assistant: Eunyoung Moon
Class meetings: UTA 1.208 Tuesdays, 9 am to 12 pm
Canvas page: https://utexas.instructure.com/courses/1176219

Prerequisites
- Graduate standing in the School of Information

Introduction

“This toothpaste will whiten your teeth three shades”.

“Our study has shown that people are not using libraries due to the availability of online information”.

“54% of Americans are unhappy with the president's performance”.

“This weight loss pill has helped people reduce over a 100 lbs.* Follow this link to read our testimonials and success stories”.

“A recent survey by the Cool Heritage Foundation concluded that unemployment on the west coast is down 1.3% in the third quarter of the year because of the policies enacted by John Doe. Reelect him to keep our wealth intact and our economy growing”.

“Our results indicate that 37% of library users want access to free wi-fi”.

“Scientists are now 95% certain that global warming is caused by human activity. The previous studies led to only 90% certainty regarding this causal effect”.

*Results not typical. The pill may not be taken by those with headaches, severe breathing congestion, two limbs, sugar intake, blood pressure, and vascular capacity. Several other disclaimers go here.

Claims such as these are directed at us via television programming, radio shows, print media, and Web pages several times a day. How do we treat these claims? Do we believe them? Do we disbelieve them? Do we decide not to make a decision and go about our next task? As individuals, we are free to do any of the above but the impact of our decisions may some times be more severe than at others. Use of a product with questionable claims may result in health complications. While believing claims about the economy may lead us to vote for or against a certain candidate.

As information professionals, you may be called upon to assess information for others. A reference librarian may be asked to suggest articles related to a faculty member's research. A corporate archivist may be asked to study a company's records and make recommendations on a new policy. A data analyst may be asked to recommend for or against a course of action. These are decisions could make or break your career.

An understanding of the methodology used to reach specific claims is critical when determining the reliability of that claim. What is the available data? Is the available data reliable? Was it acquired using the best practices? Was the data analyzed appropriately? Should it have been analyzed differently or more thoroughly? Does the analysis support the claims that are based on the data? Do the claims exaggerate certain aspects of the data while downplaying others?

These are some of the questions that we will address in this course. We will study the various ways of conducting systematic inquiry in order to gather reliable data, analyze it appropriately and draw conclusions with a justifiable degree of certainty.

Expect to hear about "research". A lot. We will learn about the use and evaluation of research methods and materials through readings, lectures, group exercises, hands-on activities, and a team project.

Objectives

This course will enable you to:

1. differentiate between data, analysis, and interpretation
2. compare and contrast the strengths and weaknesses of research methods employed
3. evaluate and critique research results (serve the role as a peer or as a referee)
4. articulate the implications of information obtained from research projects
5. frame research questions and hypotheses (required for a masters thesis)
6. design research proposals that include qualitative and quantitative methods (required for a masters thesis)
Pedagogy

This course will use a variety of techniques to maximize learning opportunities. This involves significant time investment outside of the classroom and our taking ownership of the learning process. There will be a few lectures but wherever possible, the course will include student discussions and group activities. The course will embody some aspects of the flipped classroom model. Another emphasis in this course is learning-by-doing, a principle embodied in the project-based learning (wikipedia, BIE) approach.

Grading

10% - Class participation (changed on 10/18)
40% - Assignments
50% - Group projects (changed on 10/18)
   - 10% - Problem statement, significance, and key literature
   - 10% - Data collection methods, instruments, metrics
   - 15% - IRB documentation, approved proposal
   - 40% - Research and data analysis (very, very small sample)
   - 15% - Final poster session (present the results)

95 to 100: A
90 to 94.X: A-
87 to 89.X: B+
83 to 86.X: B (You must get at least this in iSchool core courses for it to count toward your degree)
80 to 82.X: B- (and so on...)

Textbooks and resources

There is no textbook for this course. We will use a variety of online resources. Class-specific protected files will be made available via Canvas.

Academic integrity

All students are expected to abide by the University of Texas Honor code, reproduced below for your convenience.

The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the university is expected to these values through integrity, honesty, trust, fairness, and respect toward peers and community.

Violation of academic integrity, especially plagiarism, will not be tolerated. The first infraction will result in a grade of zero for that component of the course as well as a formal reprimand in your student file for future reference. Penalty for a second violation will include failure of the course and University-level disciplinary action.

Disability accommodations

The University of Texas at Austin provides upon request appropriate academic adjustments for qualified students with disabilities. For more information, contact the Services for Students with Disabilities (SSD) at (512) 471-6259 (voice) or (512)-410-6644 (video phone). An official letter from SSD is required in order to avail academic accommodations.

Please notify me as quickly as possible if the material being presented in class is not accessible (for example, instructional videos need captioning, course packets are not readable for proper alternative text conversion, etc.).

Emergency Preparedness

Please see details in the files section.