J460/560
Special Topics: Brand Insights with Data
Fall 2018

Lecture

Date and time: Fridays, 9am – 11:50 pm
Location: 162 Franklin Building

Instructor

Professor David Markowitz
e: dmark@uoregon.edu
Office Hours: Thursdays, 10am-12pm (153 Franklin Building)
Book appointment at: dave-markowitz.youcanbook.me/

Course Description

This class will allow students to understand and explore the growing world of big data. Students will learn how to obtain large datasets, generate statistical insights from big data, and interpret the findings to draw insights about people, institutions, or brands. Data sources will include those that are custom-made (e.g., data used for the purposes of research or investigation, such as Sprinklr) and readymade (e.g., data made for one purpose but are being repurposed for research, such as Twitter text). This course is project-based and therefore, students should finish the class with new empirical knowledge and the ability to communicate this knowledge to others.

Course Goals

The overarching goal of this course is to use social scientific and computational approaches to make insights about real-world phenomena. By the end of this course, all students are expected to:

1. Formulate research questions and testable hypotheses.
2. Determine the appropriateness of a method to support or reject hypotheses.
3. Analyze data to support or reject hypotheses, largely using quantitative approaches.
4. Present team-based research findings to an audience.
5. Develop recommendations or actionable steps for people, institutions, or brands based on the insights developed in the research projects.
6. Write a full research paper for conference submission.

Students specifically enrolled in J560 will be assigned as team leaders for the group projects that will be completed during the term. These students have the same course goal as reflected above, plus: (1) Organizing meetings and other logistics for team-based research, and (2) Providing weekly status updates to the professor to mark the team's progress.

Learning Approach

A fundamental part of this course is learning by performing the approaches that are taught in seminar and by handling data. Therefore, parts of the course will require data collection or data repurposing through some computational means. You will have support in carrying out these hands-on activities.

Students will use different tools to analyze and evaluate the data that you have collected. Data analysis is often statistical. You are therefore required to analyze your own data, but can also receive help from the resources throughout the university (https://casit.uoregon.edu/services/casit-data-services/statistical-computing-help).

Data collection and analyses are self-reflective as well. Was the data source appropriate to answer my research question? What are the biases associated with my data that change how I am able to interpret the findings? This course encourages students to approach research from a "learning by doing" perspective, while also reflecting on the quality and biases of the data. Further, students will consider ethical issues associated with obtaining and using data from different archives.

Course Website

The course website is located on Canvas: https://canvas.uoregon.edu/courses/119832

Text and Readings

We will use the following textbook throughout the term, which is available online and the university bookstore:

> Salganik, M. (2017). *Bit by bit: Social research in the digital age*. Princeton: Princeton University Press.

Readings are foundational for this seminar and are required. Seminar discussions will not review the readings, but instead, dissect them and use their insights to spark conversation. The readings are purposeful and will also help push your projects forward.

Software

Statistical tests will be computed using SPSS or *R*. Microsoft Excel is not permitted and assignments that are submitted using Excel will not be accepted. Excel can assist with data preparation and cleaning, but rigorous analyses require more robust statistical programs.

There are many benefits to using SPSS, including but not limited to:

1) You may already have experience with this statistics package from other courses.
2) Statistical outputs are clear, intuitive, and require little computational overhead.
3) Graphical commands can help to clearly identify the statistical tests that are run.

There are many benefits to using *R*, including but not limited to:

1) You may already have programming experience and such skills transferrable.
2) Results are more easily reproducible in this software environment relative to other environments.
3) You will learn new skills and join a growing community of scholars who subscribe to one of the most current statistical computing platforms.

Assignments and Grading

Category	Activity	Weight	Late day eligible	Group grade
Project Benchmarks	Benchmark 1	10%	No	Yes
	Benchmark 2	10%	No	Yes
	Benchmark 3	10%	No	Yes
Labs	Lab 1	10%	Yes	No
	Lab 2	10%	Yes	No
	Lab 3	10%	Yes	No
Final Project	Poster and presentation	10%	No	Yes
	Write-up and data storage	30%	No	Yes

Assignments and Grading (detailed)

Project Benchmarks (30% total): There are three benchmark assignments in the course. These assignments help to push the projects forward while also allowing for feedback. All benchmark assignments will be completed as a team, requiring students to collaborate in different but meaningful capacities. Note, since this course is project-based, a significant amount of time will be required to complete the project outside of seminar. There may be times when you and your team need to meet with the professor outside of class to provide project progress reports.

The exact requirements for each benchmark paper will be provided in class and on a specific assignment hand-out. Broadly, Benchmark 1 will be a project proposal with research questions and hypotheses, Benchmark 2 will be an improved literature search and a sketch of the Method section, and Benchmark 3 will be data analysis and interpretation.

Labs (30% total): Labs are individual assignments that take lecture material into the wild for testing, application, and reinforcement. The exact requirements for each lab will be provided in class and on a specific assignment hand-out.

Final Project (40% total): The final project will synthesize the previous three benchmark assignments to produce a research paper that will be submitted to a major communication conference (National Communication Association or International Communication Association). This paper will take the form of a standard social science journal article (Abstract, Introduction, Method, Results, and Discussion), written in APA format (6th Edition). It is crucial that you submit all assignments in APA format (6th Edition) and failure to do so will result in grade reductions. A convenient resource for help with APA formatting is located online, for free: https://owl.english.purdue.edu/owl/resource/560/01/

The final project will also be presented to the J460/560 and School of Journalism and Communication community with a poster presentation. Posters are intended to teach students how to distill a large project into its crucial elements and to communicate a new idea to others.

Note, the University of Oregon (UO) Honor Code applies to all work completed in this course. For more information on this code, please see: https://policies.uoregon.edu/vol-3-administration-student-affairs/ch-1-conduct/student-conduct-code

Grading: Grades will be based on the following scale (note, this is subject to change based on the grade distribution at the end of the term):

A+ 98-100%

A	93-97%
A-	90-92%
B+	87-89%
B	83-86%
B-	80-82%
C+	77-79%
C	73-76%
C-	70-72
D	60-69%
F	Below 60%

All labs will be graded in 0.5 increments with the following levels:

5 = Exceptional (above and beyond expectations)
4 = Excellent (no mistakes, all expectations met)
3 = Good (some mistakes, most expectations met)
2 = Fair (some major conceptual errors, many expectations not met)
1 = Poor (did not finish, most expectations not met)
0 = Did not participate/did not hand in

If you have questions or concerns about any grade, you may submit a **1-page written request for grade re-review within three days** after you receive the grade. A grade re-review may result in a higher or lower grade as the Instructor may review your entire assignment.

Late Submission Policy

Students may submit one lab assignment up to 24 hours late during the course of the quarter. This can be for any or no reason. Beyond this, *late assignments without prior arrangements or notification will not be accepted; and will result in a zero for that assignment.* If you anticipate not being able to turn in an assignment on time, please contact the Instructor as soon as possible.

Extensions are provided at the Instructor's discretion and will not always be granted. They should be an absolute last resort, requested only in genuinely extenuating circumstances. In cases where an extension is granted, grades on late assignments will typically be reduced at least one point per day of lateness.

Attendance

Attendance on the first meeting and all days of the term are mandatory, as there will be substantial time devoted to discussion, exercises in class, lab presentations, and material that will not be covered elsewhere. Failure to attend class could result in your course grade being lowered, or your dismissal from the course, at the Instructor's discretion. Please communicate with the Instructor if extended absences will occur (e.g., for health, athletics reasons).

Per the University's academic calendar, the Fall quarter begins on September 24th. All class dates for this course are included on this syllabus, and students are expected to plan any travel or activities unrelated to class with these dates in mind.

Research Participation

Students can gain extra credit of up to 2% to their final grade by participating in experiments conducted in the School of Journalism and Communication. Experiments are hosted on the SONA system (link to be provided).

For each hour of experiments completed throughout the term (not each experiment), 1% of extra credit will be gained. You are allowed to "double-dip" if you are in another class that requires or may be offering experiment participation. It is your responsibility to ensure that you receive credit for each class, however.

Recordings and Privacy

It is essential to the success of this class that participants feel comfortable sharing questions, fears, reservations and various experiences during discussions. Therefore, you may not create any audio or video recordings during class time nor share verbatim comments with those not in class whether through text messages, email, social media updates, or any other format.

Students with Disabilities

Students with disabilities that need accommodations in this class are encouraged to contact the Accessible Education Center as soon as possible (i.e., during the first week of classes, barring extenuating circumstances that prohibit this) to ensure that such accommodations are implemented in a timely fashion (https://aec.uoregon.edu/request-accommodations). In general, and to ensure fairness to all students, the Instructor will not make accommodations for disabilities without sufficient documentation. You are also welcome to contact Disability Services in 164 Oregon Hall at (541) 346-1155 or disabsrv@uoregon.edu.

Academic Integrity at the University of Oregon

Students are expected to comply with University regulations regarding academic integrity. If you are unclear about what constitutes academic dishonesty, speak to the instructors before the assignment is due and/or examine the University website. Academic dishonesty includes but is not limited to: cheating on an exam (e.g., copying others' answers, providing information to others, using a crib sheet) or plagiarism of a paper (e.g., taking material from readings without citation, copying another student's paper). Failure to maintain academic integrity on an assignment will result in a loss of credit for that assignment, at a minimum. Other penalties may also apply, including academic suspension. The guidelines for determining academic dishonesty and procedures followed in a suspected incident of academic dishonesty are detailed on the website (https://dos.uoregon.edu/academic-misconduct).

Equal Opportunity Classroom Environment

The University of Oregon, and this course, affirms and actively promotes the right of all individuals to equal opportunity in education and employment at this institution without regard to race, color, sex, national origin, age, religion, marital status, disability, veteran status, sexual orientation, gender identity, gender expression or any other extraneous consideration not directly and substantively related to effective performance.

Mandatory Reporting

University of Oregon employees, including faculty, staff, and GEs, are mandatory reporters of prohibited discrimination and of child abuse. This statement is to advise you that that your disclosure of information about prohibited discrimination or child abuse to a UO employee may trigger the UO employee's duty to report that information to the designated authorities. Please refer to the following link for detailed information about mandatory reporting: https://president.uoregon.edu/content/employee-reporting-responsibilities

Discrimination and Harassment Reporting

Any student who has experienced sexual assault, relationship violence, sex or gender-based bullying, stalking, and/or sexual harassment may seek resources and help at safe.uoregon.edu. To get help by phone, a student can also call either the UO's 24-hour hotline at 541-346-7244 [SAFE], or the non-confidential Title IX Coordinator at 541-346-8136. From the SAFE website, students may also connect to Callisto, a confidential, third-party reporting site that is not a part of the university.

Students experiencing any other form of prohibited discrimination or harassment can find information at respect.uoregon.edu or aaeo.uoregon.edu or contact the non-confidential AAEO office at 541-346-3123 or the Dean of Students Office at 541-346-3216 for help. As UO policy has different reporting requirements based on the nature of the reported harassment or discrimination, additional information about reporting requirements for discrimination or harassment unrelated to sexual assault, relationship violence, sex or gender based bullying, stalking, and/or sexual harassment is available at Discrimination & Harassment.

Topics and Readings

J460/560 meets once per week for approximately two hours and fifty minutes. Each class will include a mixture of seminar discussion and in-class activities. A tentative day-by-day schedule is represented below. Readings will also be provided on the course Canvas site and are required.

Week 1

Friday, September 28th: Introduction, data science overview, and research topic discussion

In-class activity: Group project formation

Readings: Salganik (2017, Ch. 2); Shah et al. (2015); Stephens-Davidowitz (2017, Ch. 3)

Due: Learning survey due before class on September 28th

Week 2

Friday, October 5th: Social as data

In-class activity: Conversation with Paul Herman, VP Platform Marketing & Education, Sprinklr

Readings: Bem (2003); Fan & Gordon (2014, pp 74-78); Kosinski et al. (2013); KKV (Ch. 1)

Week 3

Friday, October 12th: Text as data

In-class activity: Scraping Twitter and introduction to descriptive statistics

Readings: Golder & Macy (2011); Kramer et al. (2014); Tausczik & Pennebaker (2010)

Due: Benchmark 1 due Friday, October 12th (11:59pm); Lab 1 due Tuesday, October 16th (11:59pm)

Week 4

Friday, October 19th: Big data ethics and the Open Science Framework (OSF)

In-class activity: Brief lab presentations, OSF setup

Readings: boyd & Crawford (2012); Munafò et al. (2017); Salganik (2017, Ch. 6);

Week 5

Friday, October 26th: Noticing patterns; in-class project feedback and discussion

In-class activity: Learning more about your data

Readings: Salganik (2017, Ch. 3); Smith & Anderson (2018)

Due: Benchmark 2 due Friday, October 26th (11:59pm); Lab 2 due Tuesday, October 30th (11:59pm)

Week 6

Friday, November 2nd: Diving into other data sources

In-class activity: Audience and content measurement, brief lab presentations

Readings: Lipsman et al. (2012); Shalev & Morwitz (2012)

Week 7

Friday, November 9th: Quantifying relationships between variables

In-class activity: Statistical approaches to notice relationships and make predictions

Readings: Silver (2017)

Due: Benchmark 3 due Friday, November 9th[h] (11:59pm); Lab 3 due Tuesday, November 13th (11:59pm)

Week 8

Friday, November 16th: What data can tell us (and what they cannot)

Readings: Brooks (2013); Silver (2012, Ch. 6); Stephens-Davidowitz (2017; Ch. 7-8)

Week 9

Friday, November 23rd: No class – Thanksgiving Break

Week 10

Friday, November 30th: In-class poster presentation

Due: Final write-up and data storage due Thursday, December 6th (11:59pm)