

DSM 550: Analytics and Research Methodology (4 units)

Spring 2023 – Mondays, 6:30-9:20 PM

Section: 21865

Location: ASC 231

Instructor: Andy Lutzky

Office Hours: by appointment

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Course Description

The world's most valuable resource is no longer oil, but data, says *The Economist*, a weekly international news and business publication. Social media platforms as well as digital sites and apps are a critical part of this ecosystem because they generate substantial amounts of quantitative and qualitative data. Digital analytics is the practice of analyzing the data from these sources. Digital analytics can be applied to multiple scenarios.

A few examples include:

- Designing a social media campaign and assessing its success
- Creating a digital site or app and evaluating its effectiveness, and/or
- Making the business case for more resources for digital and social media.

For students in the Digital Social Media Master's Program at USC Annenberg, this course on analytics and research methodology teaches the use and interpretation of digital analytics as well as the use of research design, methodology, and basic statistics for digital sites and apps. Class sessions will focus on active learning activities that apply and put into practice the course readings and materials. The purpose is to prepare students to use analytics and research methodologies to make prudent decisions about digital social media strategies and tools used in corporations and organizations.

Student Learning Outcomes

Upon completion of this course, students will be able to:

1. Select appropriate statistical research methods to assess digital and social media effectiveness
2. Design a basic communication research study for a social media campaign, digital site, or an app
3. Use Google Analytics to process, organize, and analyze data for decision making
4. Evaluate digital and social media analytics and use them to make data-driven business decisions
5. Apply data visualization techniques to effectively communicate digital analytics

Course Notes

Lecture slides and notes will be provided on Blackboard following each lecture. When classes are held via Zoom, the recordings will be provided following the class.

Laptop Policy

All undergraduate and graduate Annenberg majors and minors are required to have a PC or Apple laptop that can be used in Annenberg classes. Please refer to the [Annenberg Digital Lounge](#) for more information. To connect to USC's Secure Wireless network, please visit USC's [Information Technology Services](#) website.

Required Readings and Supplementary Materials

This course will use a primary textbook: Salganik, Matthew J. 2018. *Bit by Bit: Social Research in the Digital Age*. Princeton, NJ: Princeton University Press. ([open review edition here](#))

Note: Students are welcome to purchase the textbook either digitally or physically, however, students are also welcome to use the free, open review edition linked above. The course does not require that students purchase the textbook.

Students will also regularly be assigned to read relevant articles on the internet, which are noted in the syllabus. Required internet articles are subject to change at any time. I will notify students of any changes.

Description and Assessment of Assignments

More detailed assignment summaries will be provided throughout the course. Assignments are subject to change. I will let you know, via Blackboard and in class, if any changes are made.

- **Sourcing Human Subjects with Amazon Mechanical Turk:** For this assignment you will explore Amazon's Mechanical Turk (MTurk), a popular crowdsourcing research platform where industry and academic researchers recruit online users for various goals.
- **Social Data Analysis with Twitter:** For this assignment, we will try collecting and interpreting the meaning of a small set of social data from Twitter.
- **Network Analysis:** The purpose of this assignment is to conduct a social network analysis by using real-world social conversational data acquired from users on a platform.
- **Google Analytics:** You will be required to complete the Google Analytics qualification certification for this course.
- **Survey Design Assignment:** From a non-researcher's point of view, survey and experimental research may look similar because experimental studies often use questionnaires just like survey studies do. However, surveys and experiments are two different research methods. Survey design is the most effective when a researcher wants to generalize findings to the target population. This assignment will challenge you to create an effective survey for a digital audience.
- **Final Analytics Project: Dashboard and Reporting Plan:** You will bring together the course learnings in a digital analytics dashboard and reporting plan of 5-7 pages/slides. You will choose an organization and identify goals for the dashboard and reporting, analytics to be included, reporting cadence and audience, and a data visualization overview.

Grading Breakdown

Description of assessments and corresponding points and percentage of grade.

Assessment Tool (assignments)	Points	% of Grade
Sourcing Human Subjects with MTurk	50	5%
Network Analysis	100	10%
Collect and Analyze Social Data from Twitter	200	20%
Google Analytics	100	10%
Survey Design	200	20%
Final Analytics Project	350	35%
TOTAL	1,000	100%

Course Grading Scale

Letter grades and corresponding point value ranges.

Letter grade and corresponding numerical point range		
95% to 100%: A	80% to 83%: B- (B minus)	67% to 69%: D+
90% to 94%: A-	77% to 79%: C+	64% to 66%: D
87% to 89%: B+	74% to 76%: C	60% to 63%: D-
84% to 86%: B	70% to 73%: C-	0% to 59%: F

Classroom Policies

The world of digital analytics changes in real time. What constitutes a “best practice” at the start of the semester may become out of date by the end of the semester. In an effort to provide you the most current, cutting-edge education possible, the syllabus will likely adjust throughout the semester.

I am conscious that changes to assignments, readings, and lecture material can be disruptive, and could make the course seem hard to follow. Changes will only be made when truly necessary, and students will be informed promptly. My request to you is for patience, agility, and flexibility.

It is OK to ask questions about course material at any time. “The only bad questions are the questions that go unasked.”

Attendance

Class will begin promptly at the listed start time. Being late will result in you missing a vital portion of the day’s lesson. Class participation and in-class assignments missed due to unexcused absences cannot be made up.

More than three unexcused absences during the term may result in you being dropped from the class or suffer from a severe point loss. If you need to be late or absent for a period, please consult with me ASAP (via any of the provided methods of communication) so that we can plan to continue your participation in the class so that you may finish the class.

If you arrive very late (e.g., over one hour from the start of class) this is considered as absent (especially since this is over half the class), unless prior arrangements have been made with me.

Grading Standards

Letter Grade	Description
A	Excellent; demonstrates extraordinarily high achievement; comprehensive knowledge and understanding of subject matter; all expectations met and exceeded.
B	Good; moderately broad knowledge and understanding of subject matter; explicitly or implicitly demonstrates good, if not thorough understanding; only minor substantive shortcomings.
C	Satisfactory/Fair; reasonable knowledge and understanding of subject matter; most expectations are met; despite any shortcomings, demonstrates basic level of understanding.

D	Marginal; minimal knowledge and understanding of subject matter; more than one significant shortcoming; deficiencies indicate only the most rudimentary level of understanding.
F	Failing; unacceptably low level of knowledge and understanding of subject matter; deficiencies indicate lack of understanding.

Grading Timeline

Assignments will typically be graded within one week of the due date. I will keep you updated on assignments that require longer to grade.

Assignment Submission Policy

All assignments are due on the dates specified. Lacking prior discussion and agreement with the instructor, late assignments will automatically be given a grade of F.

Assignments must be submitted via Blackboard unless otherwise noted.

Add/Drop Dates for Session 001

(15 weeks: 1/9/2023 – 4/28/2023; Final Exam Period: 5/3-10/2023)

Link: <https://classes.usc.edu/term-20231/calendar/>

Last day to add: Friday, January 27, 2023

Last day to drop without a mark of "W" and receive a refund: Friday, January 27, 2023

Last day to change enrollment option to Pass/No Pass or Audit: Saturday, January 28, 2023 [All major and minor courses must be taken for a letter grade.]

Last day to add/drop a Monday-only class without a mark of "W" and receive a refund or change to Audit: Tuesday, January 31, 2023

Last day to withdraw without a "W" on transcript or change pass/no pass to letter grade: Friday, February 24, 2023 [Mark of "W" will still appear on student record and STARS report and tuition charges still apply.]

*Please drop any course by the end of week three for session 001 (or the 20 percent mark of the session in which the course is offered) to avoid tuition charges.]

Last day to drop with a mark of "W": Friday, April 7, 2023

Course Schedule: A Weekly Breakdown

A weekly schedule of the topics, readings, and deliverables for the course.

Important note to students: Be advised that this syllabus is subject to change - and probably will change - based on the progress of the class, news events, and/or guest speaker availability.

	Topics/Daily Activities	Readings and Homework	Deliverable/Due Dates
Week 1 1/9	Welcome and Course Introduction	Salganik Chapter 1	
Week 2 1/16	Martin Luther King's Birthday: No Class		
Week 3 1/23	Ethics & Human Subjects Research	Salganik Chapter 6	

	Topics/Daily Activities	Readings and Homework	Deliverable/Due Dates
		VIDEO: Philip Zimbardo, "The Stanford Prison Experiment"	
Week 4 1/30	Interpreting & Understanding Data	Salganik, Chapter 2 VIDEO: Marshall McLuhan, "The End of Polite Society"	Sourcing Human Subjects with Amazon MTurk
Week 5 2/6	Designing Experiments / Research Techniques	Salganik Chapter 4 Goncalves, A. SN Video Coding and Web Development, Mastering Social Media Analytics	
Week 6 2/13	Social Media Engagement & Research Methods	"Analyzing social media networks with NodeXL: Insights from a connected world," Hansen, Shneiderman & Smith. (on Blackboard)	
Week 7 2/20	President's Day: No Class		
Week 8 2/27	Target Audiences & Content Analysis	"Sentiment Analysis and Opinion Mining," Bing Liu, Chapter 1 (on Blackboard) "Digital Rhetoric," James Zappen, <i>Technical Communication Quarterly</i> (on Blackboard)	Collect and Analyze Social Data from Twitter
Week 9 3/6	Social Media Metrics / Google Analytics	Google Analytics Individual Qualification VIDEO: Goncalves, A.: Mastering Social Media Analytics . Strategy. Tactics. Future of Social Analytics. 42:24 – 01:42	Network Analysis
Spring Break	Spring Break – No Class		
Week 10 3/20	Survey Research / Interview Research	Salganik, Chapter 3	Survey Design
Week 11 3/27	Conducting Tests with Users	"Designing the User Interface," Shneiderman et al. 4, 5, 6a	
Week 12 4/3	Persuading Participants	Salganik, Chapter 5	
Week 13 4/10	Future Research	Salganik Chapter 7 VIDEO. Futurist Peter Schwartz "Planning for the Unthinkable"	

	Topics/Daily Activities	Readings and Homework	Deliverable/Due Dates
Week 14 4/17	Final Presentations	In-Class Presentations I	Final Analytics Project
Week 15 4/24	Final Presentations	In-Class Presentations II	Google Analytics Individual Qualification
FINAL EXAM PERIOD 5/3-5/10	Summative experience		

Policies and Procedures

Communication

Students are encouraged to contact the instructor outside of class, as needed to support your academic success, via office hours, email, and/or Slack.

- *Office Hours:* Student meetings are by appointment only. Please schedule time by contacting me directly.
- *Email:* You are also encouraged to email me with questions on any topic you would like to discuss. In general, I will respond to emails within 24 hours or sooner.
- *Blackboard:* Course materials and weekly slides will be posted on Blackboard.

Statement on Academic Conduct and Support Systems

Academic Integrity:

The University of Southern California is a learning community committed to developing successful scholars and researchers dedicated to the pursuit of knowledge and the dissemination of ideas. Academic misconduct, which includes any act of dishonesty in the production or submission of academic work, compromises the integrity of the person who commits the act and can impugn the perceived integrity of the entire university community. It stands in opposition to the university's mission to research, educate, and contribute productively to our community and the world.

All students are expected to submit assignments that represent their own original work, and that have been prepared specifically for the course or section for which they have been submitted. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s).

Other violations of academic integrity include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), collusion, knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university. All incidences of academic misconduct will be reported to the Office of Academic Integrity and could result in

outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see [the student handbook](#) or the [Office of Academic Integrity's website](#), and university policies on [Research and Scholarship Misconduct](#).

The School of Communication maintains a commitment to the highest standards of ethical conduct and academic excellence. Any student found responsible for plagiarism, fabrication, cheating on examinations, or purchasing papers or other assignments will be reported to the Office of Student Judicial Affairs and Community Standards and may be dismissed from the School of Communication. There are no exceptions to the school's policy.

In addition, it is assumed that the work you submit for this course is work you have produced entirely by yourself and has not been previously produced by you for submission in another course or Learning Lab, without approval of the instructor.

Students and Disability Accommodations:

USC welcomes students with disabilities into all of the University's educational programs. The Office of Student Accessibility Services (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at osas.usc.edu. You may contact OSAS at (213) 740-0776 or via email at osasfrontdesk@usc.edu.

Support Systems:

[Counseling and Mental Health](#) - (213) 740-9355 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

[988 Suicide and Crisis Lifeline](#) - 988 for both calls and text messages – 24/7 on call

The 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. The Lifeline is comprised of a national network of over 200 local crisis centers, combining custom local care and resources with national standards and best practices. The new, shorter phone number makes it easier for people to remember and access mental health crisis services (though the previous 1 (800) 273-8255 number will continue to function indefinitely) and represents a continued commitment to those in crisis.

[Relationship and Sexual Violence Prevention Services \(RSVP\)](#) - (213) 740-9355(WELL) – 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender- and power-based harm (including sexual assault, intimate partner violence, and stalking).

[Office for Equity, Equal Opportunity, and Title IX \(EEO-TIX\)](#) - (213) 740-5086

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

[Reporting Incidents of Bias or Harassment](#) - (213) 740-5086 or (213) 821-8298

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

[The Office of Student Accessibility Services \(OSAS\)](#) - (213) 740-0776

OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

USC Campus Support and Intervention - (213) 740-0411

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity, Equity and Inclusion - (213) 740-2101

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-1200 – 24/7 on call

Non-emergency assistance or information.

Office of the Ombuds - (213) 821-9556 (UPC) / (323-442-0382 (HSC)

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

Occupational Therapy Faculty Practice - (323) 442-2850 or otfp@med.usc.edu

Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.

Annenberg Student Success Fund

<https://annenbergscholarship.usc.edu/current-students/resources/annenbergscholarships-and-awards>

The Annenberg Student Success Fund is a donor-funded financial aid account available to USC Annenberg undergraduate and graduate students for non-tuition expenses related to extra- and co-curricular programs and opportunities.

Annenberg Student Emergency Aid Fund

<https://annenbergscholarship.usc.edu/current-students/resources/annenbergscholarships-and-awards>

Awards are distributed to students experiencing unforeseen circumstances and emergencies impacting their ability to pay tuition or cover everyday living expenses. These awards are not intended to cover full-tuition expenses, but rather serve as bridge funding to guarantee students' continued enrollment at USC until other resources, such as scholarships or loans, become available. Students are encouraged to provide as much information in their application, as well as contact their academic advisor directly with questions about additional resources available to them.

About Your Instructor

My 15-plus year career in marketing and communications has taken me from sports, to technology, and government, both agency and in-house, to earned media, social media, influencer marketing, and more.

I have served as CMO for a City, executed global/integrated campaigns for tech brands like Samsung, Microsoft, Google, and others, and led editorial strategy with the San Francisco 49ers of the National Football League.

Through all that, I've learned the importance of blending a sound strategy with an environment of creative safety, openness and empathy. When together, truly great work emerges.

When I'm not thinking deeply about communications and marketing problems, you're likely to find me watching NBA basketball or eating some kind of burrito.

Read more of my writing at <https://www.andylutzky.com/>.