DSM 550: Analytics and Research Methodology

Spring 2022
Thursdays, 6:30-9:20 PM, Section 21869
Location: Wallis Annenberg Hall Room 210

Instructor: Raymond A. Lutzky, Ph.D.
Adjunct Lecturer of Communication
Annenberg School for Communication & Journalism
University of Southern California
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 Policies and Procedures

Diversity, Inclusion, Equity, and Access
An inclusive, welcoming, and accessible environment as well as intellectual freedom are priorities in this class and in class discussions. Please be respectful. Any form of racism, sexism, xenophobia, homophobia or other forms of discriminatory behavior on the basis of ethnicity, gender, sexuality, or class will not be tolerated. Please speak up if you have concerns about anything said in the classroom, during the class by contacting the instructor privately.

Attendance
Students are strongly encouraged to attend class meetings in person or virtually as announced; this is the best way to engage with the course and keep up to date with class activities and assignments. However, there will be no penalty for failing to attend live sessions, and students who miss sessions will be able to keep up with the class by reviewing Blackboard and engaging through asynchronous class activities and assignments.
Flexibility
Due to the nature of this course and the availability of guest speakers, there may be changes to the order of topics explored, addition or deletion of topics, and adjustment to speakers and speaker dates. Every effort will be made to give students ample notice if changes need to be made. The syllabus schedule should be viewed as preliminary.

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.
- **Slack**: This class will use Slack as a communication and collaboration tool. Further details are under “Descriptions of Assignments.” You may also contact me directly via Slack.
- **Blackboard**: Course materials and weekly slides will be posted on Blackboard.

Technological Proficiency and Hardware/Software Required
Class meetings and assignment study sessions will, from time to time, be held via USC provided Zoom. Students should have the latest version of Zoom on their laptops and access via their USC account (recordings will be provided after any virtual sessions). Examples of the websites and apps we will use in class include Blackboard, Slack and Google Analytics.

Required Readings and Supplementary Materials
Readings and other materials are noted. Links are included for those available in the public domain. Other readings and materials for weekly course meetings will be provided via Blackboard.

Primary Textbook:

Description and Assessment of Assignments: Eight (8) assignments will make up your total grade in this class. More detailed assignment summaries will be provided throughout the course.

Blackboard Prompts (5 discussions online) + Slack Collaboration
Via five prompts during the course, you will make a substantive and thoughtful contributions as part of Blackboard discussion (asynchronous) outside of class, based on in-class topics. You will also regularly contribute to Slack, providing at least 6 meaningful contributions during the course.

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 of Grade

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
<th>% of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion Posts and Slack Collaboration</td>
<td>150</td>
<td>15%</td>
</tr>
<tr>
<td>Sourcing Human Subjects with MTurk</td>
<td>50</td>
<td>5%</td>
</tr>
<tr>
<td>Network Analysis</td>
<td>100</td>
<td>10%</td>
</tr>
<tr>
<td>Collect and Analyze Social Data from Twitter</td>
<td>200</td>
<td>20%</td>
</tr>
<tr>
<td>Google Analytics</td>
<td>100</td>
<td>10%</td>
</tr>
<tr>
<td>Survey Design</td>
<td>200</td>
<td>20%</td>
</tr>
<tr>
<td>Final Analytics Project</td>
<td>200</td>
<td>20%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,000</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Overall Grading Rubric Standards for the Course
The grading rubric for this course is on a standard 90/80/70/60 scale:

| 100-94% | A | Exceptional performance in all areas |
| 93-90%  | A-| Excellent performance in all areas  |
| 89-87%  | B+| Very good performance in all areas. |
| 86-84%  | B | Good performance in all areas, with some areas of weakness found. |
| 83-80%  | B-| Good performance in all areas, with some significant areas of weakness or low performance. |
| 79-77%  | C+| Average performance in all areas, with strong weakness in academic performance in the class. |
| 76-74%  | C | Average to weak performance in all areas, with performance in some areas insufficient for course success |
| 73-70%  | C-| Below average performance in all areas, with significant performance insufficiencies. |

Performance below a C- is not considered passing for this course, regardless of the actual letter grade. For this graduate program, all students must achieve a minimum of a 3.0 GPA (a “B” grade) to earn the degree.

Add/Drop Dates for Session 001

15 weeks: January 10– April 29; Final Exam Period: May 4-11
January 28: Last day to register and add classes for Session 001
January 28: Last day to drop a class without a mark of “W,” except for Monday-only classes, and receive a refund for Session 001
February 25: Last day to drop a course without a mark of “W” on the transcript for Session 001. 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 (or the 20 percent mark of the session) to avoid tuition charges.
April 8: Last day to drop a class with a mark of “W” for Session 001

Course Outline (Subject to Change)
*Important note to students: Be advised that this syllabus is subject to change – and probably will change – based on the progress of the class, events, and/or guest speaker availability, where relevant.*

<table>
<thead>
<tr>
<th>Date</th>
<th>Week</th>
<th>Topic</th>
<th>Reading Due</th>
<th>Assignment Due</th>
</tr>
</thead>
</table>
| 1/20 | 2    | Ethics & Human Subjects Research | Salganik Chapter 6 [https://t.co/DV2KQF4dPx](https://t.co/DV2KQF4dPx)  
| 1/27 | 3    | Interpreting & Understanding Data | Salganik, Chapter 2 [https://t.co/2B CfWYJ58u](https://t.co/2B CfWYJ58u) | Sourcing Human Subjects with Amazon MTurk |
| 2/3  | 4    | Designing Experiments / Research Techniques | Salganik Chapter 4 [https://t.co/iXsi6YM3dA](https://t.co/iXsi6YM3dA)  
| 2/17 | 6    | Guest Speaker TBD | Topic To Be Announced | Discussion Post 3 |
| 2/24 | 7    | Target Audiences & Content Analysis | "Sentiment Analysis and Opinion Mining," Bing Liu, Chapter 1 [https://drive.google.com/file/d/1-vmwODUgOLESDkVw6E22qS593Cb1Mgm/view?usp=sharing](https://drive.google.com/file/d/1-vmwODUgOLESDkVw6E22qS593Cb1Mgm/view?usp=sharing)  
“Digital Rhetoric,” James Zappen, *Technical Communication Quarterly* [https://drive.google.com/file/d/1EcHH52QX8xW9m6KlqN_Y9Bn-SnC3ziti/view?usp=sharing](https://drive.google.com/file/d/1EcHH52QX8xW9m6KlqN_Y9Bn-SnC3ziti/view?usp=sharing) | Collect and Analyze Social Data from Twitter |
| 3/3  | 8    | Social Media Metrics / Google Analytics | Google Analytics Individual Qualification  
<p>| 3/10 | 9    | Survey Research / Interview Research | Salganik, Chapter 3 <a href="https://t.co/R9KTeRN87S">https://t.co/R9KTeRN87S</a> | |
| 3/17 | 10   | Break | Spring Break – No Class Meeting | |</p>
<table>
<thead>
<tr>
<th>Date</th>
<th>Week</th>
<th>Topic</th>
<th>Guest Speaker/TBD</th>
<th>Extra Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/24</td>
<td>11</td>
<td>Survey Design</td>
<td>Guest Speaker TBD</td>
<td>Topic To Be Announced</td>
</tr>
<tr>
<td>3/31</td>
<td>12</td>
<td>Conducting Tests with Users</td>
<td>“Designing the User Interface,” Shneiderman et al. 4, 5, 6</td>
<td>Discussion Post 4</td>
</tr>
<tr>
<td>4/7</td>
<td>13</td>
<td>Persuading Participants</td>
<td>Salganik, Chapter 5</td>
<td>Discussion Post 5</td>
</tr>
<tr>
<td>4/14</td>
<td>14</td>
<td>Future Research</td>
<td>Salganik Chapter 7</td>
<td>Final Analytic Project</td>
</tr>
<tr>
<td>4/14</td>
<td>14</td>
<td>Future Research</td>
<td>Fogg Chapters 1, 2, 9</td>
<td>Google Analytics Individual Qualification</td>
</tr>
<tr>
<td>4/15</td>
<td>15</td>
<td>Guest Speaker TBD</td>
<td>Topic To Be Announced</td>
<td>Study Days/Exam Period</td>
</tr>
</tbody>
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**About Your Instructor**

Dr. Raymond Allen Lutzky is Adjunct Lecturer of Communication at the University of Southern California Annenberg School for Communication and Journalism. He brings more than 20 years of experience with digital media technology to his teaching, and is currently Director, Academic Network at InStride, a public benefit corporation in downtown Los Angeles, founded by Arizona State University. Dr. Lutzky has served as an instructor at NYU, Cornell Tech and Rensselaer Polytechnic Institute, teaching computer science, MBA, and digital media graduate students. He received his Ph.D. in Communication and Rhetoric from Rensselaer where his dissertation focused on human-media interaction and user experience and behavior. Dr. Lutzky also holds an M.S. in Public Relations from the S.I. Newhouse School of Public Communications at Syracuse University and an M.S. in Digital Audience Strategy from the ASU Walter Cronkite School of Journalism and Mass Communications. More at raylutzky.com.
Statement on Academic Conduct and Support Systems

a. Academic Conduct

Plagiarism

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in Scampus in Part B, Section 11, “Behavior Violating University Standards” policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in Scampus and university policies on scientific misconduct, policy.usc.edu/scientific-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, without approval of the instructor.

b. Support Systems

Counseling and Mental Health - (213) 740-9355 – 24/7 on call studenthealth.usc.edu/counseling
Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call suicidepreventionlifeline.org
Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention and Services (RSVP) - (213) 740-9355(WELL), press “0” after hours – 24/7 on call studenthealth.usc.edu/sexual-assault
Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office of Equity and Diversity (OED)- (213) 740-5086 / Title IX – (213) 821-8298 equity.usc.edu, titleix.usc.edu
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. The university prohibits discrimination or harassment based on the following protected characteristics: race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, age, physical disability, medical condition, mental disability, marital status, pregnancy, veteran status, genetic information, and any other characteristic which may be specified in applicable laws and governmental regulations. The university also prohibits sexual assault, non-consensual sexual contact, sexual misconduct, intimate partner violence, stalking, malicious dissuasion, retaliation, and violation of interim measures.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298 usc-advocate.symplicity.com/care_report
Avenue to report incidents of bias, hate crimes, and microaggressions to the Office of Equity and Diversity | Title IX for appropriate investigation, supportive measures, and response.

**The Office of Disability Services and Programs** - (213) 740-0776
dsp.usc.edu
Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

**USC Campus Support and Intervention** - (213) 821-4710
campussupport.usc.edu
Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

**Diversity at USC** - (213) 740-2101
diversity.usc.edu
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
dps.usc.edu, emergency.usc.edu
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) 442-120 – 24/7 on call
dps.usc.edu
Non-emergency assistance or information.

**Annenberg Student Success Fund**

https://annenberg.usc.edu/current-students/resources/annenberg-scholarships-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.