USC Annenberg

CMGT 564: Methodological Fundamentals of Big Data in Communication
4 Units

Spring 2024 – Thursday – 6:30pm
Section: 21783
Location: ANN 210

Instructor: Drew Shackleton
Office: Zoom link tbd
Office Hours: Wednesday 5:00-6:00 pm
Contact Info: dhshackl@usc.edu

Course Description
The film and TV business has experienced significant transformation over the last decade with evolving business models, distribution practices, marketing strategies, and consumer behavior – and big data sits at the heart of it all. In this course, we will explore why data is so important to Hollywood today, where it is sourced, who utilizes it, and how it offers a competitive advantage. Specifically, we will examine the use cases of big data throughout the lifecycle of a title (i.e., all exploitation windows) and the key underlying performance metrics and concepts, such as box office, TV ratings, streaming activity, and generative AI. All exercises and assignments will be from the perspective of a data analyst/translator, where students will ultimately be asked to draw insights from datasets by employing data wrangling techniques and analytical methodologies to then communicate findings utilizing data storytelling best practices.

Student Learning Outcomes
The primary goal is to help students better translate data into actionable insights and utilize analytics to inform key decisions around content investment and programming, release strategy, optimal distribution model, and a title's marketing campaign. By completing this course, students will have the ability to:
- Derive conclusions from datasets toward real industry challenges
- Speak the language of entertainment research and analytics and be fluent in big data terminology
- Communicate insights to stakeholders connecting the data to business priorities
- Prepare data visualizations and dashboards to effectively present findings
- Articulate the current state of the film and TV industry, their changing business models, and the importance of consumer data

Prerequisite(s): None
Co-Requisite(s): None
Concurrent Enrollment: None
Recommended Preparation: CMGT 540 Uses of Communication Research or equivalent

Technological Proficiency and Hardware/Software Required
Zoom may be required at some point in the semester. Most course materials will be stored on Blackboard. Projects and coursework will also require Microsoft Excel and Tableau – those should be downloaded. USC Technology Support Links: Zoom information for students, Blackboard help for students, Software available to USC Campus.

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

The following book is required:

- Knaflic, C.N. (2015). *Storytelling with Data.* John Wiley & Sons, Inc. Hoboken, NJ:
    - Physical book, or
    - eBook via USC Library (free)

The following case is required (for purchase):

- HBS Legendary Analytics

The following movies are required:

- The Great Hack
- Moneyball

There will also be required articles throughout the semester that will be announced the week before class.

Grading Breakdown

Description of assessments and corresponding points and percentage of grade.

Assessment Tool (assignments)	% of Grade
Class Participation Class sessions will only be as valuable as the effort you put in and therefore a major component of the grade. To participate well takes preparation, i.e., to read and watch the various materials assigned, before class. Participation can take the form of answering questions, asking questions, making an assertion, responding to a point, or engaging in breakout sessions.	10%
Bi-Weekly Homework Students will be asked to respond to 1-3 thought starter questions related to the upcoming class session, often tied to the readings/viewings. These will be open-ended questions with the expectation of a thoughtful answer to better prepare for the topic at hand. [5-7 pieces of work; 100-250 words each]	15%
Midterm Between weeks 7 and 8, there will be a take-home assignment with a set of questions and exercises based on weeks 1-7 learnings. These will be short answer questions, totaling 500-800 words. Students will be graded on these topics: ● Extracting insights from Excel database ● Television & streaming data ● Box office data ● Film & TV business models ● Comping & forecasting	25%
Final Project	50%

Assessment Tool (assignments)	% of Grade
On teams of 4-5, students will advise on a programming and audience activation strategy for a new streaming service based on viewership data from a recent trial, consumer survey data, and the current competitive landscape. Students will be graded on these topics: ● Extracting Insights from Excel database ● Data communication and visualization ● Command of film and TV business (landscape and business models) ● Audience activation via consumer data ● Data driven programming ● Social and search data ● Presentation and delivery ● Attendance and participation in final session	
TOTAL	**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-	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
In each lecture, I will encourage and facilitate discussions among the class and within breakouts. These discussions need to be civilized and respectful and relevant to the topic we are covering. Class discussion should convey a variety of viewpoints – this can only be achieved if we respect each other and our differences.

Attendance
Class attendance and punctuality is critical for you and your classmates to get the most out of this course; however, health issues and personal emergencies are to be expected. I expect email notification in advance if you are going to miss or be late for class. First nondisclosed absence is excused no questions asked, second absence lowers final grade by 1%, 3rd lowers by another 2%, 4th lowers by additional 3%, missing more than 4 classes put you at risk for failing the class. Tardiness is ½ of the aforementioned penalty.

Grading Standards
What each letter grade demonstrates.

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.**

Assignment Submission Policy

All assignments must be submitted to Blackboard by the stated deadline. Any late homework assignment will be docked -1 point, late projects will be docked -10%.

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	Deliverable/Due Dates
Week 1 **Dates: 1/11**	Importance of Big Data in Hollywood: ● Review syllabus ● Discuss the history, evolution, and role of data in Hollywood ● Discuss the meaning of "big data" ● Preview Excel exercises in week 2	Articles posted separately	
Week 2 **Dates: 1/18**	Extracting Insights from Excel Databases (Video Recording) ● Examine how to build and manage a database in Excel ● Explore advanced filtering and pivot Tables ● Learn If-then formulas and text to columns ● Learn look-up formulas and sum-if(s)	Watch Excel instructional videos posted separately	[**Martin Luther King Day**: Monday, January 15]

	Topics/Daily Activities	Readings	Deliverable/Due Dates
	● Build graphs in Excel		
Week 3 **Dates: 1/25**	Linear Television: ● Review the evolution of the TV business ● Explore the fundamentals of linear TV data (ratings, reach, etc.) ● Weigh the pros and cons between panel-based data vs. user level data	Articles posted separately	Homework assignment due
Week 4 **Dates: 2/1**	OTT Streaming: ● Examine cord cutting and the shift to streaming ● Discuss studios' DTC strategy ● Explore the fundamentals of OTT data Guest Speaker: Head of Film Acquisitions @ Hulu	Articles posted separately	
Week 5 **Dates: 2/8**	Film and TV Business Models: ● Dive deeper into windowing and the different revenues streams for TV and film ● Examine how independents versus majors approach distribution	Articles posted separately	Homework assignment due
Week 6 **Dates: 2/15**	Theatrical: ● Introduce basic box office metrics ● Examine how the data is collected and how it is used to measure performance and inform release strategy ● Explore different types of distribution rights Guest Speaker: VP Business Strategy @ NBCUniversal	Articles posted separately	Homework assignment due
Week 7 **Dates: 2/22**	Comping and Forecasting: ● Explore methods of projecting performance with historicals ● Introduce ultimates and greenlight modeling	Articles posted separately	[**Presidents' Day:** Monday, February 19]

	Topics/Daily Activities	Readings	Deliverable/Due Dates
	• Examine different ways to comp titles and metadata to categorize them		
Week 8 Dates: 2/29	Data Driven Creative Development and Programming: • Examine how studios are utilizing big data to inform creative decisions • Explore different approaches to extract insights from viewership data to guide programming strategy Guest Speaker: Lead Film Campaign Planner @ Netflix	Articles posted separately	Midterm Due
Week 9 Dates: 3/7	Leveraging Social and Search Metrics: • Examine how social and search data can be used to keep a pulse on the mainstream and represent a reliable alternative data source • Introduce social listening and sentiment analysis • Review key sources of social and search data Guest Speaker: VP Patnerships @ Parrot Analytics	N/A – Explore GoogleTrends and Wikipedia Pageviews	Homework assignment due
Spring Break Dates: 3/14			
Week 10 Dates: 3/21	Consumer Data for Audience Activation • Take a closer look at what it means to "own the consumer" via 1P data • Explore how consumer data is leveraged for targeted activations • Introduce closed loop attribution for monitoring of campaign performance	**Required Viewing:** The Great Hack [Movie] **Required Reading:** Legendary Business Case	Homework assignment due

	Topics/Daily Activities	Readings	Deliverable/Due Dates
	● Examine the roles and capabilities of a data driven marketing org ● Define programmatic marketing and cookies Guest Speaker: SVP Digital Marketing & Consumer Insights at Sony Pictures		
Week 11 **Dates: 3/28**	Introduction to Data Visualization and BI Dashboards: ● Review the key graphs and visuals offered by Excel and how to construct them ● Explore different types of business intelligence dashboards and how they are utilized	**Required Reading:** *Storytelling with Data*: Chapters 1-3	
Week 12 **Dates: 4/4**	Designing Effective Visualization: ● Explore how to make data visuals consumable for all stakeholders ● Discuss the common pitfalls of data visualizations Guest Speaker: Director, Strategic Insights & Integration @ Disney	**Required Reading:** *Storytelling with Data*: Chapters 4-6	Homework assignment due
Week 13 **Dates: 4/11**	Final Project Workshop *Meet on your own with your teams*		
Week 14 **Dates: 4/18**	Data Storytelling: ● Examine how data can be incorporated into presentations/discussions to persuade ● Review the do's and don'ts of communicating analytics ● Discuss how to adapt communication based on the audience	**Required Reading:** *Storytelling with Data*: Chapters 7-8	
Week 15 **Dates: 4/25**	Finals Group Presentations		Final presentation materials due

	Topics/Daily Activities	Readings	Deliverable/Due Dates
STUDY DAYS **Dates: 4/27-4/30**			
FINAL EXAM PERIOD **Dates: 5/1-5/8**			

Policies and Procedures

Communication

All students are encouraged to schedule time outside of class to discuss assignments, class concepts, and other relevant topics, such as career advice. Coordination over email is preferred.

Statement on Academic Conduct and Support Systems

Academic Integrity

The University of Southern California is foremost a learning community committed to fostering successful scholars and researchers dedicated to the pursuit of knowledge and the transmission of ideas. Academic misconduct is in contrast to the university's mission to educate students through a broad array of first-rank academic, professional, and extracurricular programs and includes any act of dishonesty in the submission of academic work (either in draft or final form).

This course will follow the expectations for academic integrity as stated in the USC Student Handbook. All students are expected to submit assignments that are original work and prepared specifically for the course/section in this academic term. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s). Students suspected of engaging in academic misconduct will be reported to the Office of Academic Integrity.

Other violations of academic misconduct include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), 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 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.

Course Content Distribution and Synchronous Session Recordings Policies
USC has policies that prohibit recording and distribution of any synchronous and asynchronous course content outside of the learning environment.

Recording a university class is prohibited without the express permission of the instructor and announcement to the class, or unless conducted pursuant to an Office of Student Accessibility Services (OSAS) accommodation. Recording can inhibit free discussion in the future, and thus infringe on the academic freedom of other students as well as the instructor. (Living our Unifying Values: The USC Student Handbook, page 13).

Distribution or use of notes, recordings, exams, or other intellectual property, based on university classes or lectures without the express permission of the instructor for purposes other than individual or group study is also prohibited. This includes but is not limited to providing materials for distribution by services publishing course materials. This restriction on unauthorized use also applies to all information, which had been distributed to students or in any way had been displayed for use in relationship to the class, whether obtained in class, via email, on the internet, or via any other media. (Living our Unifying Values: The USC Student Handbook, page 13).

Use of AI
Use of AI (e.g., ChatGPT and image generation tools) in this class is permitted. Learning to use AI is an emerging skill, and I welcome the opportunity to meet with you to discuss these tools during office hours or after class. Keep in mind the following:
- Students ALWAYS need to be able to (and should be prepared to) defend all assignment submissions and work product, regardless of resources utilized
- AI tools are permitted to help you brainstorm topics or revise work you have already written.
- If you provide minimum-effort prompts, you will get low-quality results. You will need to refine your prompts to get good outcomes. This will take work.
- Proceed with caution when using AI tools and do not assume the information provided is accurate or trustworthy If it gives you a number or fact, assume it is incorrect unless you either know the correct answer or can verify its accuracy with another source. You will be responsible for any errors or omissions provided by the tool. It works best for topics you understand.
- AI is a tool, but one that you need to acknowledge using. Please include a paragraph at the end of any assignment that uses AI explaining how (and why) you used AI and indicate/specify the prompts you used to obtain the results what prompts you used to get the results. Failure to do so is a violation of academic integrity policies.
- Be thoughtful about when AI is useful. Consider its appropriateness for each assignment or circumstance. The use of AI tools requires attribution. You are expected to clearly attribute any material generated by the tool used.

Unauthorized Assistance
Please ask me if you are unsure about what constitutes unauthorized assistance on an exam or assignment, or what information requires citation and/or attribution.
Collaboration. In this class, you are expected to submit work that demonstrates your individual mastery of the course concepts.
Group work. Unless specifically designated as a "group project," all assignments are expected to be completed individually.
Computer programs. Plagiarism includes the submission of code written by, or otherwise obtained from someone else.

If found responsible for an academic violation, students may be assigned university outcomes, such as suspension or expulsion from the university, and grade penalties, such as an "F" grade on the assignment, exam, and/or in the course.

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
Annenberg Student Success Fund
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
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.

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.

TrojansAlert
TrojansAlert is an alert system that allows university officials to contact you during an emergency. It is your connection to real-time updates, instructions on where to go, what to do, or what not to do, who to contact and other important information. Visit the website to sign up.

Emergency Preparedness/Course Continuity in a Crisis
In case of a declared emergency if travel to campus is not feasible, USC executive leadership will announce an electronic way for instructors to teach students in their residence halls or homes using a combination of Blackboard, teleconferencing, and other technologies. See the university's site on Campus Safety and Emergency Preparedness.

ITS Customer Support Center (CSC): (213) 740-5555
The ITS Customer Support Center (CSC) provides support to the USC community for connecting to the USC Network and using supported applications. For help with network connectivity and software, contact CSC. Walk-in support is available in Leavey Library's Information Commons.

Violence-Free Campus
Visit the website to read more about prohibited behaviors, reporting responsibilities and where to report.

Student-Athlete Travel Excuse Letters
Prior to a university-sponsored away competition, Student-Athletes are responsible for providing their Instructor with a Competition Excuse Letter (provided by their academic counselor) for the classes missed while on the road (i.e., excused absence). It is the responsibility of the Student-Athlete to provide the letter prior to leaving on their trip and to make arrangements for a make-up of any missed assignments or exams. Please refer to the SAAS site where they detail travel and travel excuse letters.

Add/Drop Dates for Session 001
(15 weeks: 1/8/2024 – 4/26/2024; Final Exam Period: 5/1-8/2024)
Link: https://classes.usc.edu/term-20241/calendar/
Last day to add: Friday, January 26, 2024
Last day to drop a class without a mark of "W," except for Monday-only classes, and receive a refund: Friday, January 26, 2024
Last day to change enrollment option to Pass/No Pass or Audit: Friday, January 26, 2024 [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 30, 2024
Last day to withdraw without a "W" on transcript or change pass/no pass to letter grade: Friday, February 23, 2024 [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 5, 2024