

Sport, Social Media, & Advanced Data Analytics

SPM 4905

Class 20203

3 Credits | Spring 2024

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Course Information

INSTRUCTOR

Gidon Jakar, Ph.D.

Office: FLG 304

Office Phone: 352-294-1685

Preferred Method of Contact: gkalar@ufl.edu

Expect a response within 24 hours M – F, 48 hours after 4pm Fri, and 48 hours on Sat or Sun

OFFICE HOURS

Monday and Wednesday from 12:00 pm – 2:00 pm & by appointment

MEETING

TIME/LOCATION

Thursday (P.3-4) 9:35-11:30 (FLG 245) & Wednesdays 3:00pm (virtual) or another time if specified.

.Access the course through Canvas on UF e-Learning (<https://elearning.ufl.edu/>) and the Canvas mobile app by Instructure.

COURSE DESCRIPTION

- The course accounts the historical development of social media and human society culminating in the social media boom. Students discuss the theories behind social media and human society, usages of social media in the sport industry, and learn different ways of analyzing social media including data collection, descriptive statistics, quantitative analysis, and machine learning (artificial intelligence) sentiment analysis.

PREREQUISITE KNOWLEDGE AND SKILLS

- STA 2023 & Sophomore standing & above

REQUIRED TEXTBOOK

- There is no required book for this class
- Reading material will be allocated via Canvas
- NVivo and R Studio are both available through UF Apps, though R is also free to download. Links to do so will be shared in the first couple of weeks but can be found via <https://info.apps.ufl.edu/> and online searches.

MATERIALS AND SUPPLY FEES

There are no supply or material fees for this course.

COURSE FORMAT

- **Instructional Methods:** This course consists of asynchronous lectures, readings, and discussions to provide students with a variety of learning methods. You are responsible for observing all posted due dates and are encouraged to be self-directed and take responsibility for your learning.
- **Minimum Technology Requirements:** The University of Florida expects students to acquire computer hardware and software appropriate to his or her degree program. Most computers can meet the following general requirements. A student's computer configuration should include:
 - Broadband connection to the Internet and related equipment (Cable/DSL modem)
 - Microsoft Office Suite installed (provided by the university)
- **Minimum Technical Skills:** To complete your tasks in this course, you will need a basic understanding of how to operate a computer, and how to use word processing software.
- **Lectures & Assignments:** Students will watch pre-recorded lectures and complete weekly assignments and discussions based on assigned due dates.

COURSE LEARNING OBJECTIVES:

The primary objectives of this class are to introduce the interaction of sport and social media and examine tools to analyze social media content. By the end of the course students will be able to:

1. Describe social media terms
2. Discuss social media and the sport industry
3. Explain ways to collect social media (big) data
4. Analyze social media descriptively using analytical tools including R Studio and NVIVO
5. Apply quantitative analyses to examine trends in social media
6. Examine social media content using artificial intelligence and machine learning techniques
7. Create an executive report using social media analytics discussing current issues in sport

Grading

The overall distribution of evaluation requirements is as follows:

<u>Assignment</u>	<u>Assignment grade</u>	<u>Final grade</u>
Social media and sport (1)	100pts each = 100pts	20%
Social media data collection (1)	100pts each = 100pts	20%
Data collection (1)	100pts each = 100pts	20%
Final Project & Presentation (1)	200pts each = 200pts	37%
Weekly Unit assignments (11)	1pts each = 11 pts	2%
Weekly Unit assignments (2)	2pts each = 4 pts	1%
Total grade	515pts	100%

Assignments:

During the semester there will be four assignments at the end of modules 2-5. The final assignment/project (assignment 4) for module 5 will consist of a brief presentation and report submitted at the end of the semester and will be an analysis of social media content using the machine learning techniques we will be using in class. The final project can be done in pairs. Specific grading rubrics for each assignment are listed below following the description of each assignment; however, in all instances, grading will consider articulation and organization of the written sections of the assignments. The first 3 assignments will have a final grade worth 100 points while the final project is worth 200 points that will then be adjusted to the grades appearing in the table above to account for the course's final grade.

- I. Social media and Sport (100 pts): In this assignment, students must choose a topic that interests them and discuss how they will examine it from a social media perspective.** This assignment will be related to the readings assigned for the classes leading up to week 5. The assignment will include an overview of the challenge/problem they intend to address and its relevance to the sport industry. Topics can include fans’ reaction to sporting events, team engagement with fans, social issues related to sport and how they are portrayed in social media, athletes’ use of social media, how teams use social media, etc.

Grading Rubric Social Media and Sport

Criterion	Exemplary	Proficient	Unsatisfactory	Score
Argument/question	(25-30 pts)	(10-24.9)	(0-9.9)	
	The student clearly stated and articulated their argument and research question, and how it is related to the topic they are discussing.	The student stated the research question and argument in a sufficient manner but still required clarifications and corrections.	The student either failed to include a research question and/or argument or did so in a manner that required substantial corrections regarding content	_____/30 pts
Referencing data and examples	(25-30 pts)	(10-24.9)	(0-9.9)	
	The student included all the necessary references to data and external sources as requested in the assignment and included sufficient examples from social media	The student failed to include some references or referenced then incorrectly and did not include enough examples	The student failed to include any references or missed out on several references to data included and the student also failed to include examples as requested	_____/30 pts
Reading material and other sources	(25-30 pts)	(10-24.9)	(0-9.9)	
	The student included both academic and non-academic sources in their assignment including referencing the material discussed in class and other sources	The student included very few references to the reading material and only included reading materials included in class	The student failed to include reading materials from class and/or did not include references not included in the class materials	_____/30 pts

Format and structure	(8-10 pts)	(5-7.9)	(0-4.9)	
	The student presented an assignment that is coherent and structured as requested	Submitted an assignment that was sufficiently coherent but still required edits in both the format and structure	Submitted an assignment that is both lacking in format and structure and requiring substantial changes failing to comply with the instructions	_____/10 pts
				Total __/100

II. Data assessment and organization (100 pts): In this assignment students will be first acquainted with social media data from Fanatics and will be required to organize the data, generate general rubrics (categorizing posts), and provide a preliminary report on the data included in the dataset they are allocated. Data allocated to students will be based on the social listings assigned to them for the final project.

Grading Rubric Social Media Data Collection

Criterion	Exemplary	Proficient	Unsatisfactory	Score
Social media posts	(43-50 pts)	(30-42.9)	(0-29.9)	
	The student submitted the necessary file as requested	Submitted partial data	Either failed to submit this part of the assignment or submitted incorrect data	_____/50 pts
Data outline	(43-50 pts)	(30-42.9)	(0-29.9)	
	The student described the data collected including sources and description of the data in an organized and coherent way	Submitted a document that included a partial description of the data or in a less coherent way	Either failed to submit the assignment or submitted a brief document that failed to meet the assignment's requirements (e.g., including only one or two paragraphs with little to no relevant information)	_____/50 pts
				Total __/100

III. Data analysis (100 pts): Using data from one of the NBA franchise social media posts on Twitter/X (uploaded on Canvas, students are asked to select one franchise and submit a report discussing the descriptive statistics of social media posts which includes both the data presentation (graphs and tables) of content and volume, and discuss the data presented. This assignment should be submitted as if it is an executive report/summary and therefore should be designed as such.

Grading Rubric Data Collection

Criterion	Exemplary	Proficient	Unsatisfactory	Score
Written discussion	(55-60 pts)	(40-54.9)	(0-39.9)	_____/60 pts
	The student clearly articulated their argument and description of the data and referenced the graphs and tables included in the assignment	Presented an adequate discussion of their argument and data but failed to properly address the data included in the assignment	Did not submit this section or failed to address the data and include graphs and tables in their discussion	
Data outline	(43-50 pts)	(30-42.9)	(0-29.9)	_____/30 pts
	The student included clear graphs and tables created in Excel or other programs	Submitted graphs and tables that required editing and were not clearly presented	Failed to include graphs or tables, and/or required substantial edits	
Format and structure	(8-10 pts)	(5-7.9)	(0-4.9)	_____/10 pts
	The student presented an assignment that is coherent and structured as requested	Submitted an assignment that was sufficiently coherent but still required edits in both the format and structure	Submitted an assignment that is both lacking in format and structure and requiring substantial changes failing to comply with the instructions	
				Total __/100

IV. Final project (200 pts): This assignment is the final project and will be conducted in groups and will account for 40% of the final grade (as noted in the table above). This assignment will be a summary report working with data from Fanatics that will also be presented to the social media team and therefore will include some recommendations/suggestions based on the analyzed data. The final project and report will focus on social listing mentions assigned to each group and will include data organization, coding, sentiment analysis, identifying patterns etc.

Grading Rubric Final Project & Presentation

Criterion	Exemplary	Proficient	Unsatisfactory	Score
Argument/question	(8-10 pts)	(5-7.9)	(0-4.9)	_____/10 pts
	The student clearly stated and articulated their argument and research question, and how it is related to the topic they are discussing.	Stated the research question and argument in a sufficient manner but still required clarifications and corrections.	Either failed to include a research question and/or argument or did so in a manner that required substantial corrections regarding content	
Methods	(8-10 pts)	(5-7.9)	(0-4.9)	_____/10 pts
	The student clearly outlined the methods used to collect the data and analyze the data	Included a methods section but did not clearly state the methods	Methods section was not included or was lacking in coherency and actual discussion of the methods	
Data overview	(8-10 pts)	(5-7.9)	(0-4.9)	_____/10 pts
	The student included clear graphs and tables created in Excel or other programs	Submitted graphs and tables that required editing and were not clearly presented	Failed to include graphs or tables, and/or required substantial edits	
Summary statistics	(8-10 pts)	(5-7.9)	(0-4.9)	_____/10 pts
	The student included and discussed briefly summary statistics	Summary statistics included but did not include a coherent overview of the summary statistics	Failed to include summary statistics, failed to discuss summary statistics included, or failed to present the data and only included a discussion	
Data analysis	(35-40)	(20-34.9)	(0-19.9)	_____/40 pts
Conclusions	(8-10 pts)	(5-7.9)	(0-4.9)	_____/10 pts
	The student clearly stated conclusions based on the previous sections	Partial conclusions and/or insufficient reference to the previous section	No conclusions or conclusions that are not related to the previous sections	

Format and structure	(8-10 pts)	(5-7.9)	(0-4.9)	_____/10 pts
	The student presented an assignment that is coherent and structured as requested	Submitted an assignment that was sufficiently coherent but still required edits in both the format and structure	Submitted an assignment that is both lacking in format and structure and requiring substantial changes failing to comply with the instructions	
Presentation*	100	100	0	___/100
	Submitted a presentation discussing the final project		Did not submit a presentation	
				Total ___/200
*All students are required to submit a presentation that is approximately five minutes long and includes preliminary data and states the topic of the final project and the methods.				

Weekly Unit Assignments (11 x 1pts = 11 pts + 2 x 1 = 4 pts): Thirteen units (not including the first week) will include a one paragraph deliverable related to the topics discussed in the unit that will be submitted at the end of each week. Eleven of the thirteen deliverables will be worth one point and two of the unit deliverables will be worth two points. Inadequate paragraphs (1-2 short sentences) will not receive a point.

Grading Rubric Weekly Unit Assignments

Criterion	Exemplary	Proficient	Score
Weekly assignment	1	0	_____/1 (or 2) pts
	The student submitted the assignment and coherently discussed the topic of the assignment	Failed to submit an assignment, address the actual topic, submit an insufficient assignment	

GRADING SCALE

The final letter grades will be based on UF grading policies as shown in the table below following the aggregation of the grades in each of the assignments and the final project:

- More detailed information regarding current UF grading policies can be found here: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

Letter Grade	Percent of Total Points Associated with Each Letter Grade
A	93-100
A-	90-92
B+	87—89

B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
E	0-59

Course & University Policies

ATTENDANCE POLICY

Attendance guidelines follow the University’s guidelines outlined below. While attendance will not be recorded during class, there will be weekly deliverables, and it is expected that students will attend all classes unless circumstances prevent them from attending and an email was sent prior to class.

<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

For all planned absences, a student in a situation that allows an excused absence from a class, or any required class activity must inform the instructor as early as possible prior to the class. For all unplanned absences because of accidents or emergencies, students should contact their instructor as soon as conditions permit.

HONOR CODE POLICY

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code specifies behaviors in violation of this code and sanctions. Click here to read the Honor Code

<http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

MAKE-UP POLICY

- Late assignments will not be accepted unless in accordance with UF’s Attendance
- Policies: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>. For all planned absences (late submission), a student in a situation that allows an excused absence (late submission) from a class, or any required class activity must inform the instructor as early as possible prior to the class. For all unplanned absences because of accidents or emergencies, students should contact their instructor as soon as conditions permit.

TECHNOLOGY PROBLEMS

- Technology is not an acceptable excuse for late work including assignments and quizzes.
- If technology becomes an issue in submitting assignments or other work to eLearning, please contact the UF Help Desk 352-392-HELP (4357).
- After contacting the Help Desk, ensure you receive a ticket number with the time, date, and explanation of the problem for your records.
- You must email the instructor within 24 hours of the technical difficulty.

ACCOMMODATING STUDENTS WITH DISABILITIES

- Accommodating students with disabilities is especially important to me. If you are aware of your
- disability or might be concerned you have a disability, please register with the Disability Resource Center by visiting their Get Started page at <https://disability.ufl.edu/students/get-started/>, call them at 352-392-8565, online <https://accessibility.ufl.edu/>, or visit the Dean of Students Office. Once registered, please contact me via email or in person during the first two weeks of class to provide me with a copy of your accommodation letter to ensure I fully understand your needs. It is my goal to provide you with the tools necessary to ensure you are successful in this course.

ZOOM

- Zoom is an easy-to-use video conferencing service available to all UF students, faculty, and staff that allows for meetings of up to 100 participants. You can find resources and help using Zoom at <https://ufl.zoom.us>.

COURSE EVALUATIONS

- Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

SOFTWARE USE

- All faculty, staff, and students at the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

CIVILITY, ACCESSIBILITY, AND COMMUNITY RESOURCES

I'm committed to creating an environment of inclusion that respects and affirms the fundamental dignity, value, and distinctiveness of all individuals and their perspectives. My teaching will reflect the understanding of the complexity of identity and the mutuality of

our global community. It is my responsibility to help promote and maintain a community of compassion, embracing the rich depths of diversity, while facilitating opportunities for equity and inclusion.

Getting Help

STUDENT SUPPORT

- **U Matter, We Care:** If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575.
- **Counseling and Wellness Center:** <https://counseling.ufl.edu/>, 352-392-1575.
- **Crisis Lifeline:** 988
- **Sexual Assault Recovery Services (SARS):** Student Health Care Center, 392-1161.
- **University Police Department:** 392-1111 (or 911 for emergencies) <http://www.police.ufl.edu/> .
- **Student Health Care Center:** Call 352-392-1161 for 24/7 information to help you find the care you need or visit shcc.ufl.edu.
- **UF Health Shands Emergency Room/Trauma Center:** For immediate medical care in Gainesville, call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; ufhealth.org/emergency-room-trauma-center.

ACADEMIC SUPPORT

- **E-learning Technical Support:** UF HELP Desk - 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. <https://lss.at.ufl.edu/help.shtml>
- **Career Connections Center, Reitz Union:** 392-1601. Career assistance and counseling. <https://career.ufl.edu/>
- **Library Support:** <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using libraries or finding resources.
- **Teaching Center, Broward Hall:** 392-2010 or 392-6420. General study skills and tutoring. <http://teachingcenter.ufl.edu/>
- **Writing Studio, 302 Tigert Hall:** 846-1138. Help with brainstorming, formatting, and writing papers. <http://writing.ufl.edu/writing-studio/>
- **Student Complaints On-Campus:** <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>
- **On-Line Students Complaints:** <http://distance.ufl.edu/student-complaint-process/>

Weekly Tentative Course Schedule

This course schedule below is tentative and might change based on the pace of the lectures and student needs; however, changes will be announced through CANVAS. The instructor bears no responsibility for announcing the changes to each individual student. All times are in Eastern Standard Time (EST).

CRITICAL DATES & UF OBSERVED HOLIDAYS

- January 15: Martin Luther King Jr. Day
- March 9 - 16: Spring Break
- Complete list available here: <https://catalog.ufl.edu/UGRD/dates-deadlines/2023-2024/#fall23text>

Weekly Course Schedule

Module 1

Unit	Topic	Reading and assignments
Week 1 (Jan8-12) Unit 1: Introduction	Introduction and overview of the class, reviewing the syllabus, student introduction, reviewing the pre-class excel file	No reading required Due: Weekly Unit Assignment 1

Module 2

Week 2 (Jan15-19) Unit 2: Social media in sport – theory and practice (1)	What is social media? Theoretical background and the history of social media	Ch1. “Understanding Media” (McLuhan) Carr, C. T., & Hayes, R. A. (2015). Social media: Defining, developing, and divining. <i>Atlantic journal of communication</i> , 23(1), 46-65. Due: Weekly Unit Assignment 2
Week 3 (Jan 22-26) Unit 3: Social media in sport – theory and practice (2)	Ethics, integrity, personal versus corporate use, social media and the application in business and the sport industry	Latané, B. (1981). The psychology of social impact. <i>American psychologist</i> , 36(4), 343. Due: Weekly Unit Assignment 3
Week 4 (Jan 28-Feb 2) Unit 4: Social media in sport – theory and practice (3)	Social media data: production and consumption	Jakar, G., & Carr, J. (2022). A Comparative Analysis of Social Media Fan (Community) Engagement in a European and a North American Pro-Sport League and Their Reaction to Industry-Wide Disruptions. <i>American Behavioral Scientist</i> , 00027642221118269. Due: Weekly Unit Assignment 4 Due: Social media and sport assignment

Module 3

Week 5 (Feb 5-9) Unit 5: Data collection and sorting (1)	Data types, sources, and data collection tools	Filo, K., Lock, D., & Karg, A. (2015). Sport and social media research: A review. <i>Sport management review</i> , 18(2), 166-181. Due: Weekly Unit Assignment 5
Week 6 (Feb 12-16) Unit 6: Data collection and sorting (2)	Data collection and creating datasets	https://www.r-bloggers.com/2022/03/how-to-get-twitter-data-using-r/ https://developer.twitter.com/en/docs/twitter-api/getting-started/getting-access-to-the-twitter-api Due: Weekly Unit Assignment 6
Week 7 (Feb 19-23) Unit 7: Data collection and sorting (3)	Meeting with Fanatics & Data organization and datasets	Due: Weekly Unit Assignment 7

Module 4

Week 8 (Feb 26-Mar 1) Unit 8: Analyzing social media data (1)	Descriptive statistics and preliminary analysis using Excel (1)	Due: Weekly Unit Assignment 8
Week 9 (Mar 4-8) Break (Mar 11-15)	Catch up and work on projects	Due: Data assessment and organization assignment Break
Week 10 (Mar 18-22) Unit 9: Analyzing social media data (2)	Descriptive statistics and preliminary analysis using Excel (2)	Due: Weekly Unit Assignment 9
Week 11 (Mar 25-29) Unit 10: Analyzing social media data (1)	Introduction to analyses of social media: volume and context	Gong, H., Watanabe, N. M., Soebbing, B. P., Brown, M. T., & Nagel, M. S. (2021). Do consumer perceptions of tanking impact attendance at National Basketball Association games? A sentiment analysis approach. <i>Journal of Sport Management</i> , 35(3), 254-265.

Watanabe, N. M., Shapiro, S., & Drayer, J. (2021). Big data and analytics in sport management. *Journal of Sport Management*, 35(3), 197-202.
 Due: Weekly Unit Assignment 10
 Due: Descriptive and basic statistical analysis assignment

Module 5

Week 12 (Apr 1-5) Unit 11: Analyzing social media data (2)	Statistical analyses of social media data (“interactions” and “impact”)	Due: Weekly Unit Assignment 11
Week 13 (Apr 8-12) Unit 12: Analyzing social media data (3)	Statistical analyses of social media data (sentiment analysis - NVIVO)	https://help-nv11.qsrinternational.com/desktop/concepts/How_to_coding_sentiment_works.htm Due: Weekly Unit Assignment 12
Week 14 (Apr 15-19) Unit 13: Analyzing social media data (4)	Statistical analyses of social media data (sentiment analysis - R)	Due: Weekly Unit Assignment 13
Week 15 (Apr 22) Unit 14: Presentations	Presentations and concluding remarks	Students will upload a ten-to-fifteen-minute presentation discussing their final project Due: Presentations
Final Exam Week	Final Project	Final Project due

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