COMM 4558
SOCIAL MEDIA ANALYTICS
SPRING 2021

Instructor:

Professor Joseph Bayer, PhD [email: bayer.66@osu.edu]

Synchronous (Live) Online Lab: Thursday, 3:00pm-4:50pm EST [see Carmen for Zoom Links]

Office Hours: Thursday, 1:00pm-2:00pm EST [Zoom Link]

Course description

The is an online course. The course represents an introduction to analyzing social media data with an emphasis on the implications and applications for market research, communication strategy, and technology history. How do we know whether a feature on the new iPhone is working? What type of consumers are most likely to buy a given product? How does the perception of a platform change after a crisis? Social media streams can provide valuable insights into users, brands, audiences, and technologies. The course provides an overview of the approaches and challenges associated with collecting, analyzing, and visualizing social media data, including an involved case report using real-world social analytics software.

Course learning goals and outcomes

The primary objectives of this course are to teach students how to obtain, monitor, and evaluate social media data from major online platforms (e.g., Twitter). When we are finished, you will be prepared to approach future industry and academic problems with an understanding of how social media data can help accomplish your goals. You will learn the advantages/disadvantages of using social media data, how to operate established analytics platforms (e.g., Synthesio), and how to engage in market research to study emerging technologies. Altogether, you will acquire the fundamental perspectives and hands-on skills needed to work with social media data.

Mode of delivery

This course is delivered fully online. There are no in-person components required.

How this course works

- Each week, a new module will become available on the course Carmen site that contains all of the online requirements associated with that week.
- Each Thursday, you will participate in a live (i.e., synchronous) lab session at 3:00pm EST via Zoom (see link on Carmen). The lab session will involve weekly activities and data analysis through Netlytic and Synthesio.
- All assignments are due 11:59pm EST on Sundays.

Course materials

- All required readings and materials will be accessible through our Carmen site via the Files section. You can also access readings and materials by clicking through the links in the weekly course modules.
- Access to Netlytic (via this external URL) and Synthesio (via this external URL) for data analysis and vizualization. More information about accessing the analytics platforms will be provided within the lab demonstrations and Carmen modules.
- Access to a computer/laptop, a high-speed Internet connection, current web browser with video-related plugins, speakers/headphones, and Microsoft Office (available to OSU student free of charge via this external URL). Students should not attempt to complete this course using a smartphone. You must be comfortable working more independently than in an in-person classroom and using your computer, web-browser, and navigating Carmen. Additionally, you must ensure that your computer functions properly and that you use some form of data redundancy (e.g., cloud backups or physical duplication). Please see the technology policy below for more details.

- There is **no required textbook** for this hands-on analytics course. However, I recommend the following books related that are relevant to industry research for advanced students interested in pursuing social media analytics in their careers.
  - Finger, L. & Dutta, S. (2014). *Ask, Measure, Learn: Using Social Media Analytics to Understand and Influence Customer Behavior*. Sebastopol, CA: O'Reilly.
  - Knaflic, C. N. (2015). *Storytelling with Data: A Visualization Guide for Business Professionals*. Hoboken, NJ: Wiley.

Grading

This class has 100 possible points, which are distributed as follows:

Online Attendance	5 points
TopHat Participation	15 points
Software Comparison	10 points
Netlytic Report #1	10 points
Netlytic Report #2	10 points
Synthesio Report #1	10 points
Synthesio Report #2	10 points
Case Study Proposal	10 points
Case Study Report	20 points

Assignments

- **Online Attendance (5pts).** An attendance grade will be assigned at the end of the course based on your participation in synchronous (online) lab activities. You must attend at least 5 separate Live Labs during the semester (earning 1 point per lab).

- **TopHat Participation (15pts).** A participation grade will be assigned at the end of the course based on your active participation in TopHat activities. Each week during lab, a Weekly Discussion question will be posted on TopHat. You are required to submit a response to the weekly discussion by the following Sunday at 11:59pm EST (whether or not you attended live). You will lose 1 point for each missed Weekly Discussion thread. In addition, you are eligible to earn extra credit by participating in the optional TopHat crowdsourcing activities during the Live Labs (up to 2 points).

- **Software Comparison (10pts).** You will recommend implementation of a social media analytics platform to a self-selected company. See instructions on Carmen.

- **Netlytic Reports (10pts x2).** You will report the results of visualized analytics related to a self-selected a product on Netlytic. See instructions on Carmen.

- **Synthesio Report (10pts x2).** You will report on the results of visualized analytics related to a technology on Synthesio. See assignment instructions on Carmen.

- **Case Study Proposal (10pts).** You will propose a potential market research case study to conduct using Synthesio. See assignment instructions on Carmen.

- **Case Study Report (20pts).** You will complete a professional analytics report that puts together everything you have learned together over the semester.

Late assignments

Assume that all deadlines are in Eastern Time (ET). Students may submit all assessments late with a penalty. Penalties for late work increase cumulatively. Submitting work one second after the deadline yields a -2% point penalty for the submission. For each additional hour after the deadline, you lose an additional -2% off the submission.

Grading scale

Please note that Carmen Canvas, OSU's grading and class management software, does not round fractions up. Please take that into account in computing grades. I do not manually round up grades. The official grading scale is as follows:

93–100: A	**73–76.9: C**
90–92.9: A-	**70 –72.9: C-**
87–89.9: B+	**67 –69.9: D+**
83–86.9: B	**60 –66.9: D**
80–82.9: B-	**Below 60: E**
77–79.9: C+	

Credit hour and work expectation

This represents a 3-credit-hour course. According to Ohio State policy, students should expect around 3 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 6 hours of homework (reading and assignment preparation, for example) to receive a grade of (C) average. ASC Honors provides an excellent guide to scheduling and study expectations.

Faculty feedback and response time

I am providing the following list to give you an idea of my intended availability throughout the course. (Remember that you can call **614-688-HELP** at any time if you have a technical problem.)

Grading and feedback

For large weekly assignments, you can generally expect feedback within **7-14 days**.

E-mail

Prof. Bayer will reply to e-mails within **24 hours on school days**.

Discussion board

We will check messages in the discussion boards every **48 hours on school days**.

Virtual office hours

Virtual office hours will be held through Ohio State's conferencing platform, Carmen Zoom. Dr. Bayer's digital meeting room can be accessed during posted office hours at this link: https://osu.zoom.us/j/4327902829 (Links to an external site.). Students may use the audio and video functions if a webcam and microphone are available. If not, there is still a chat function within Zoom for the student to live chat with the professor in the virtual office hours room. A guide to accessing Zoom is available online here (Links to an external site.) and students can access support for Carmen Zoom here (Links to an external site.).

Common issues to avoid…

- **Carmen mail/messenger + submission comments.** Both of these are unreliable and the I will not check them regularly.
- **Weekend + evening emails.** Under most circumstances, I will respond to messages of this sort on the next business day.
- **Sending emails NOT from your OSU email.** Messages to our OSU accounts from non-OSU email services are regularly marked as spam and since their OSU cannot confirm their delivery, you may not use them as evidence of communication attempts.
- **Unprofessional emails.** Please ensure that your email messages are professional and informative by including your course info in the subject line, a salutation, adequate yet concise body text, closing, and your full name.

- **Emails that require immediate attention.** I aim to answer emails with 24 hours of receipt on business days. Be proactive and plan ahead.

Course Technology

For help with your password, university e-mail, Carmen, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available at https://ocio.osu.edu/help/hours, and support for urgent issues is available 24x7.

- **Carmen:**
  - Carmen, Ohio State's Learning Management System, will be used to host materials and activities throughout this course. To access Carmen, visit Carmen.osu.edu. Log in to Carmen using your name.# and password. If you have not setup a name.# and password, visit my.osu.edu.
  - Help guides on the use of Carmen can be found at https://resourcecenter.odee.osu.edu/carmen
  - **This online course requires use of Carmen (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor.**
    - Carmen accessibility
- **Carmen Zoom:**
  - Office hours will be held through Ohio State's conferencing platform, Carmen Zoom. A separate guide to accessing Carmen Zoom and our office hours is posted on the course Carmen page under Files.
  - Students may use the audio and video functions if a webcam and microphone are available. If not, there is still a chat function within Carmen Zoom for the student to live chat with the professor or TA in the virtual office hours room.
  - Carmen Zoom help guide
- **Turnitin:**
  - Students at The Ohio State University are accountable for the integrity of the work they submit. Therefore, you should be familiar with the guidelines provided by the Committee on Academic Misconduct (COAM) and Section A of OSU's Code of Student Conduct in order to meet the academic expectations concerning appropriate documentation of sources. In addition, OSU has made Turnitin, a learning tool and plagiarism prevention system, available to instructors. For this class, you will submit your papers to Turnitin from Carmen. When grading your work, I will interpret the originality report, following Section A of OSU's Code of Student Conduct as appropriate. For more information

about Turnitin, please see the vendor's guide for students. Note that submitted final papers become part of the OSU database.

- **Self-Service and Chat support:** http://ocio.osu.edu/selfservice
- **Phone:** 614-688-HELP (4357)
- **Email:** 8help@osu.edu
- **TDD:** 614-688-8743

Baseline technical skills necessary for online courses

- Basic computer and web-browsing skills
- Navigating Carmen

Necessary equipment

- Computer: current Mac (OS X) or PC (Windows 7+) with high-speed internet connection
- Web cam and microphone

Necessary software

- Word processor with the ability to save files under .doc, .docx, .rtf, or .pdf. Most popular word processing software programs including Microsoft Word and Mac Pages have these abilities.
- OSU students have access to Microsoft Office products free of charge. To install, please visit https://osuitsm.service-now.com/selfservice/kb_view.do?sysparm_article=kb04733
- Access to Netlytic (via this external URL) and Synthesio (via this external URL) for data analysis and vizualization. More information about accessing the analytics platforms will be provided within the lab demonstrations and Carmen modules.

University Policies

Student Academic Services

Arts and Sciences Advising and Academic Services' website provides support for student academic success. Information on advising issues such as tutoring, transfer credits, academic standing, and contact information for Arts and Sciences advisors can be obtained through this website. The site is: http://advising.osu.edu/welcome.shtml

Student Services

The Student Service Center assists with financial aid matters, tuition and fee payments. Please see their site at: http://ssc.osu.edu

Copyright Disclaimer

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Diversity

The School of Communication at The Ohio State University embraces and maintains an environment that respects diverse traditions, heritages, experiences, and people. Our commitment to diversity moves beyond mere tolerance to recognizing, understanding, and welcoming the contributions of diverse groups and the value group members possess as individuals. In our School, the faculty, students, and staff are dedicated to building a tradition of diversity with principles of equal opportunity, personal respect, and the intellectual interests of those who comprise diverse cultures.

Title IX

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources

at http://titleix.osu.edu or by contacting the Interim Ohio State Title IX Coordinator, Molly Peirano, at titleix@osu.edu

Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you are or someone you know is suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614--292--5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at 614-292-5766. If you are thinking of harming yourself or need a safe, non-judgmental place to talk, or if you are worried about someone else and need advice about what to do, 24-hour emergency help is also available through the Suicide Prevention Hotline (Columbus: 614-221-5445)

COVID-19 and Illness Policies

University COVID policies

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. **SLDS contact information:** slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Health and safety requirements

All students, faculty and staff are required to comply with and stay up to date on all university safety and health guidance (https://safeandhealthy.osu.edu), which includes wearing a face mask in any indoor space and maintaining a safe physical distance at all times. Non-compliance will result in a warning first, and disciplinary actions will be taken for repeated offenses.

Student illness or absence

If *you* are too ill to participate in this course due to COVID-19 or another illness, please contact the instructor as soon as you are able. All materials will be made available on Carmen, including lecture recordings and slides. Alternate assignments or extensions may be arranged.

Instructor illness or absence

If the *instructor* is too ill to teach the course for a period of time, the designated backup for this course will step in. You will be notified via email from the School of Communication.

Academic integrity policy

Policies for this online course

- **Written assignments**: All written assignments, communications, and posts should be your own original work. In formal assignments, you should follow **APA** style to cite the ideas and words of your research sources. You are encouraged to ask a trusted person to proofread your assignments before you turn them in – but no one else should revise or rewrite your work.
- **Reusing past work**: In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you've explored in previous courses, please discuss the situation with me.
- **Falsifying research or results**: All research you will conduct in this course is intended to be a learning experience; you should never feel tempted to make your results or your library research look more successful than it was.

Academic Misconduct

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct http://studentlife.osu.edu/csc/

Accessibility accommodations for students with disabilities

Requesting accommodations

Students with disabilities (including mental health, chronic or temporary medical conditions) that have been certified by the Office of Student Life Disability Services will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office of Student Life Disability Services is located in 098 Baker Hall, 113 W. 12th Avenue; telephone 614- 292-3307, slds@osu.edu; slds.osu.edu.

Course Schedule
(Tentative)

Unit A: Collecting Social Media Data

Module Weeks	Week Overview	Assignments
Week 1 Start: Monday 1/11 End: Sunday 1/17	**Introducing the Course** • Live Lab (Thursday @ 3:00pm EST) • Syllabus Overview • Carmen Overview	**Required Reading:** Wiener, A. (2018). What it's like to wallow in your own Facebook data. *The Atlantic.* [URL]
Week 2 Start: Monday 1/18 End: Sunday 1/24	**Crowdsourcing via Live Labs** • Live Lab (Thursday @ 3:00pm EST) • TopHat Overview • TopHat Discussion	**Required Reading:** Lampinen, A. (2016). Why we need to examine multiple social network sites. *Communication and the Public*, 1-5.
Week 3 Start: Monday 1/25 End: Sunday 1/31	**Finding Social Analytics Tools** • Live Lab (Thursday @ 3:00pm EST) • TopHat Discussion • G2 Overview	**Required Reading:** PC Magazine Report on 2020 social media analytics tools. [URL]
Week 4 Start: Monday 2/1 End: Sunday 2/7	**Obtaining and Cleaning Data** • Live Lab (Thursday @ 3:00pm EST) • TopHat Discussion • CSVs Overview	**Submission:** Submit Software Comparison on Carmen.

Unit B: Collecting Data via Netlytic

Week 5 Start: Monday 2/8 End: Sunday 2/14	**Collecting Data on Netlytic** • Live Lab (Thursday @ 3:00pm EST) • TopHat Discussion • Watch Module Content	**Required Reading:** Lewis, K. (2016). Three fallacies of digital footprints. *Big Data & Society*, 1-4.
Week 6 Start: Monday 2/15 End: Sunday 2/21	**Text Analyses on Netlytic** • Live Lab (Thursday @ 3:00pm EST) • TopHat Discussion • Watch Module Content	**Submission:** Submit Netlytic Report #1 on Carmen.
Week 7 Start: Monday 2/22 End: Sunday 2/28	**Network Analyses on Netlytic** • Live Lab (Thursday @ 3:00pm EST) • TopHat Discussion • Watch Module Content	**Required Reading:** Centola, D. (2016). Influential Networks. *Nature Human Behaviour*, 1-2.
Week 8 Start: Monday 3/1 End: Sunday 3/7	**Building Reports on Netlytic** • No Online Lab • No TopHat Discussion • Watch Module Content	**Submission:** Submit Netlytic Report #2 on Carmen.

Unit C: Collecting Data via Synthesio

Week 9 Start: Monday 3/8 End: Sunday 3/14	**Introducing Synthesio** • Live Lab (Thursday @ 3:00pm EST) • TopHat Discussion • Watch Module Content	**Required Reading:** Diesner, J. (2015). Small decisions with big impact on data analytics. *Big Data & Society*, 1-6.

Week 10 Start: Monday 3/15 End: Sunday 3/21	**Filtering Data on Synthesio** • Live Lab (Thursday @ 3:00pm EST) • TopHat Discussion • Watch Module Content	**Submission:** Submit Case Study Proposal on Carmen.
Week 11 Start: Monday 3/22 End: Sunday 3/28	**Generating Widgets on Synthesio** • Live Lab (Thursday @ 3:00pm EST) • TopHat Discussion • Watch Module Content	**Required Reading:** Brooker, P., Barnett, J., & Cribbin, T. (2016). Doing social media analytics. *Big Data & Society*, 1-12.
Week 12 Start: Monday 3/29 End: Sunday 4/4	**Building Reports on Synthesio** • Live Lab (Thursday @ 3:00pm EST) • TopHat Discussion • Watch Module Content	**Submission:** Submit Synthesio Report #1 on Carmen.

Unit D: Storytelling with Social Traces

Week 13 Start: Monday 4/5 End: Sunday 4/11	**Describing Your Final Datasets** • Live Lab (Thursday @ 3:00pm EST) • TopHat Discussion • Watch Module Content	**Required Reading:** Park, M., & Macy, M. (2015). The paradox of active users. *Big Data & Society*, 1-4.
Week 14 Start: Monday 4/12 End: Sunday 4/18	**Describing Your Final Figures** • Live Lab (Thursday @ 3:00pm EST) • TopHat Discussion • Watch Module Content	**Submission:** Submit Synthesio Report #2 on Carmen.

Week 15	Storytelling through Reports	
Start: Monday 4/19 End: Friday 4/23	• Live Lab (Thursday @ 3:00pm EST) • Case Report Check-Ins • Final Takeaways	**Submission:** Submit Case Study Report on Carmen. **Suggested Reading:** boyd, D., & Crawford, K. (2012). Critical questions for big data: Provocations for a cultural, technological, and scholarly phenomenon. *Information, Communication & Society*, 662-679.