USCAnnenberg

JOUR 477: Web Analytics
              for News and Nonprofit Organizations
2 units
Spring 2016: Tuesdays, 12-1:50 p.m.
Section #21456R
ASC 228

Instructor
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Office Hours
- By appointment
- I am generally on campus on Tuesdays and at the
  Norman Lear Center on Wednesdays.

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I. Course Description

This course will give you a foundation for using web traffic data to help news and nonprofit organizations measure and understand their impact on audiences. Web - or digital - analytics is an essential tool used by journalists, content producers, website managers, social media producers, communications directors and others who need to make data-driven decisions about site content, design, navigation and marketing.

This course starts with learning what metrics are available, or what types of data are available to describe how users have gotten to the site and what they did once they got there. We'll discuss both standardized metrics and those that are unique to an organization based on its goals and site architecture. After you have a solid understanding of basic site metrics, you'll get the data from Google Analytics, analyze it, and put it into a table, chart and/or graph that helps you tell the story that will give an organization insights into how it can be successful.

We will use Excel and PowerPoint extensively, and perhaps in ways that are new to you. However, the in-class workshops and weekly assignments will help you learn (or learn more about) these tools at your own pace.

II. Overall Learning Objectives and Assessment

	Step	What you need to know	Grading criteria
1	**State the question about an opportunity or a problem that needs to be answered.**	An organization's strategy, or what it's trying to do and how it's trying to do it	Is the question specific and measurable? Are the target audiences well-defined? Is question essential to the org's strategy?
2	**Identify the data or metrics that will help answer the question.**	How site traffic data is gathered, what metrics exist, what a specific metric does or doesn't indicate. How data can be segmented, or grouped.	Are the selected metrics relevant to the question? Are all possible metrics and ways of segmenting the data identified?
3	**Get the data from Google Analytics or other sources.**	Where to find the metrics you want. What default data is available, and what is available from other tools or if the tracking code is customized.	Were the correct data and segmentation used? Were the reporting periods (e.g., data by day vs. week; by month, quarter or year) relevant to the org's strategy and the question?
4	**Clean and organize the data using Excel and other tools.**	Basic database design, or how data should be put in a spreadsheet so it can be coded systematically and consistently with categories relevant to the org and the question.	Are the column and row labels correctly translated and formatted with unambiguous terms? Is the coding methodology transparent, i.e., is it clear why a piece of data got one code and not the other?
5	**Analyze the data using Google Analytics, Excel and PowerPoint.**	The quantitative calculations and qualitative assessments needed to compare, contrast and put the data into context. The difference between correlation and causation.	Have the correct and relevant calculations and formulas been used? Are they transparent and replicable? Have all differences (e.g., the amount and the percentages) and outliers been put into context and

			interpreted appropriately?
		How to use tables, charts and graphs to analyze trends, identify outliers, compare differences, etc.	Have both the trends over time and the totals been considered?
6	**Present relevant, data-based findings and recom-mendations understand-able to decision-makers.**	How your findings relate to the question. What data is missing that affects the strength and validity of your argument; what data is immaterial and thus not included. What tables, charts, graphs, infographics and formats present the data correctly and effectively. Terms the organization uses. Grammar, punctuation, spelling.	Is the question clearly stated and linked to the org's strategy? Are there findings drawn from multiple data points, not just basic calculations? Are the findings worded with the terms the org uses? Are hypotheses stated as such rather than as fact? Are any limitations or problems with the data identified? Are the recommendations based on the findings rather than personal opinion? Is the data in tables, charts and graphs presented properly and cleanly with no typos, confusing sentences, visual tricks or extra colors to distract from the info?

In this course you will learn to describe and compare the conceptual purpose, technical definitions, limitations and assumptions of various types of **behavioral metrics**:

- o **Basic content consumption metrics and segments**: Visits/sessions; visits/sessions from new vs. returning visitors; visits/sessions by geographic region. Weak and misused metrics: page views; unique visitors; time spent on site.

- o **Visitor acquisition metrics**: Visits by traffic source (direct, search, referring sites, Facebook, Twitter, campaigns); keywords.

- o **Visitor behavior metrics**: Bounce rates; landing pages; pages per visit; verbs of online actions; frequency and recency

- o **Outcome metrics:** Macro- vs. micro-outcomes or conversions. Funnels.

- o **Facebook metrics:** Page Likes vs. post likes; daily engaged users.

III. Description of Assignments

The assignments will assess your knowledge of metrics specific to news and nonprofit organizations; your proficiency with the software tools; and your ability to analyze data, put it into context and use it to formulate recommendations.

Each assignment and the final project will require you to find data in Google Analytics; use Microsoft Excel for basic quantitative analysis; and use Microsoft PowerPoint to create charts (pie, bar and line graphs) and infographics to tell a story with data. Your final project will be an analysis of all of the basic web metrics for one of the organizations discussed during the semester.

Confidential information

Throughout the semester you will have direct access to the Google Analytics accounts for a variety of news and nonprofit organizations to complete your homework assignments. This is internal, proprietary data. Thus, all data, presentations and discussions in class with your fellow students and with the organizations are confidential. You can show prospective employers your assignments and projects if you strip out all identifying information.

IV. Grading
a. Breakdown of Grade

Homework assignments

Assignments 1-4	**15%**
Assignments 5-10	**40%**

Basic metrics test	**15%**
Final project	**30%**

Total	**100%**

b. Grading Scale

Each homework assignment will usually be worth 100 points.

A	95-100
A-	90-94
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
F   59 and below

c. Grading Standards

A
The analysis is relevant, uses the correct data and is concise and complete. It identifies any assumptions that were used, data integrity issues, and issues that need to be further addressed (if any) before a manager can make a decision.

The analysis is targeted to a managerial audience, is clearly written and is free of spelling and grammatical errors. It includes relevant charts and graphs with explanatory text. There are no 3D or other types of graphs in formats that obscure the trends or data points. It uses the correct colors, data labels and font size, and has a plain white or otherwise unobtrusive background. The analyses are in a hard copy format suitable for discussion at a meeting.

B
The analysis is relevant, uses the correct data and is complete. It identifies assumptions that were used, data integrity issues, and issues that need to be further addressed (if any) before a manager can make a decision. The report and presentation have most, but not all, of the attributes of an "A" assignment.

C
The analysis is relevant and uses the correct data, but isn't complete; it's a recitation of facts rather than an analysis. It can be used for decision-making if a manager could deduce some of the issues on his/her own. The report and presentation have some of the attributes of an "A" assignment.

D
The analysis is relevant, but doesn't use the correct data and isn't complete. It needs further work before it can be used for decision-making. The report and presentation have only a few of the attributes of an "A" assignment.

F
The analysis isn't relevant, doesn't use the correct data and isn't complete.   The report and presentation doesn't have any of the attributes of an "A" assignment.

V. Assignment Submission Policy

Assignment files are due on Blackboard before the beginning of each class. You can also e-mail them to me at chinn@usc.edu if you have trouble posting them on Blackboard.

The assignments and the final project must be in Excel and PowerPoint, which are industry standards. Analysts collaborate across departments and organizations and almost always have to hand off their files. If you use Numbers, Keynote, Google Docs, Prezi or other software, you'll need to convert your files and fix any formatting problems that happen during the conversion process.

Late and/or incomplete assignments

I would like to know where you are in the learning process at all times. So, if you're struggling with an assignment for any reason, please turn in what you have when it's due. Partial credit will be given for incomplete assignments. You can resubmit any assignment once, but the maximum score you can receive for a revised assignment is 75.

Late assignments will be accepted at any time in the semester but a full letter grade will be deducted regardless of the reason for the late submission.

VI. Required Readings and Supplementary Materials

The required readings include handouts I'll distribute in class and/or post on Blackboard. The readings will come from the books and pamphlets below and from whitepapers, blogs and analytics vendor sites from both media and e-commerce.

- "Understanding Media Metrics" - Guides published by the USC Annenberg Media Impact Project

- Avinash Kaushik, Analytics Evangelist, Google, and advisory board member, Media Impact Project
  - Web Analytics An Hour a Day, Sybex/Wiley Publishing, 443 pages
  - Web Analytics 2.0, Sybex/Wiley Publishing, 475 pages
  - Occam's Razor, http://www.kaushik.net

- The Wall Street Journal Guide to Information Graphics/The Dos and Don'ts of Presenting Data, Facts, and Figures, by Dona M. Wong, W.W. Norton and Company, 158 pages

- Numbers in the Newsroom/Using Math and Statistics in News, by Sarah Cohen for Investigative Reporters and Editors, Inc., 108 pages

- Short explanatory videos on my YouTube channel (http://www.youtube.com/danachinn or use the link in the Readings and Videos section in Blackboard) that will demonstrate some of the Google Analytics, Excel and PowerPoint techniques explained in class.

If you need more basic instruction on Excel and PowerPoint, you have access to an extensive library of Lynda.com tutorial videos through Blackboard.

You are welcome to e-mail me during the week with any question about the homework assignment, technical or otherwise. The software we use can be very quirky, and sometimes is frustrating even for me. I don't want you to spend hours and hours with the tools, especially with PowerPoint. I'd rather have you focus on the analysis!

VII. Laptop Policy
Please bring a laptop to class that has Excel, PowerPoint and Internet access to each class. We will often be looking at websites in class.   Also, we will be walking through the Google Analytics, Excel and PowerPoint functions for the homework assignments.

VIII. Course Schedule

Week 1 – January 12
What is web success for an organization? How do you know?
>   Why measure?
>   What metrics matter?

What is web analytics?

Homework
- Assignment 1 (in the Assignment section on Blackboard) – Initial qualitative assessment of the class websites and target audiences

- Readings and videos for Assignment 1
    - "Web analytics - present and future" from Web Analytics: An Hour a Day
    - "The bold new world of web analytics 2.0" from Web Analytics 2.0

- Additional readings and videos for the lectures, assignments and the basic metrics test through Week 5.

    How is traffic data gathered?
    - Video: Google Analytics Platform Principles - Lesson 1.3 - The data model
    - Video: Google Analytics Platform Principles - Lesson 2.2 - Website data collection

    Basic metrics
    - "Revisiting foundational metrics" from Web Analytics: An Hour a Day
    - "The awesome world of clickstream analysis: metrics" from Web Analytics 2.0

- Video: Google Analytics Academy - Lesson 3.2 - Key metrics and dimensions defined
- Video: Google Analytics Academy - Lesson 2.2 - Core analytics techniques
- "Web Metrics for Journalists" by the USC Media Impact Project
- "Engaged Minutes and Google Analytics," by Jonathan Weber of LunaMetrics for the USC Media Impact Project

Week 2 – January 19

Basic metrics part 1
- How digital audience behavior data is gathered
- Strong vs. weak metrics
- Conceptual and technical definitions of visits/sessions, page views, unique visitors/users

Homework
- Assignment 2 – Basic metrics part 1

Week 3 – January 26 (The last day to drop this class without a mark "W" and receive a refund is Friday, January 29.)

Basic metrics part 2
- Analytical reporting periods
- Trends vs. totals or aggregations
- Time on site/avg. session duration vs. scroll rate vs. attention minutes
- Bounce rates
- Pages per visit

Homework
Assignment 3 - Basic metrics part 2

Week 4 – February 2

Dimensions or segments
- Metrics vs. dimensions
- Sessions from new users vs. sessions from returning users
- Sessions from users in different geographic areas

Homework
Assignment 4 - Segments

Week 5 – February 9
Basic metrics test (15% of course grade) on Blackboard - bring laptop

Homework
- Assignment 4 – Basic math and Excel skill-level assessment and customized toolbar set-up. PowerPoint basics and customized toolbar set-up.

- Readings and videos for next week
    - "A Newsroom Math Guide," from Numbers in the Newsroom
    - Excerpt from The Wall Street Journal Guide to Information Graphics
    - Video: Google Analytics Academy - Lesson 5.1 - Reporting overview

Week 6 – February 16
Introduction to Google Analytics
Getting basic metrics data out of Google Analytics

Review of basic analytical calculations and Excel formulas: percentages; average vs. median; amount vs. percent of change; percentage point differences; maximum vs. minimum values. Rounding. Adding trend lines with PowerPoint.   Line chart colors; axis and data labeling.

Homework
- Assignment 5 - Basic metrics analysis with line charts

- Readings and videos for next week
    - "Beginner's guide to web data analysis: ten steps to love & success (Step #2: How good is the acquisition strategy?)," by Avinash Kaushik
    - "Excellent analytics tip #18: make love to your direct traffic," by Avinash Kaushik
    - Video: Google Analytics Academy - Lesson 5.3 - Acquisition metrics
    - "Email newsletter metrics for journalists," by the USC Media Impact Project

Week 7 – February 23 (The last day to drop this class without a mark "W" is Friday, February 26.)
Traffic sources (or visitor acquisition) metrics: How did users find the site? How should an org market its site to its target audience segments?
Direct
Search - external
Social media
Referring sites

Bar chart formats, colors and labeling

Homework due October 12
- Assignment 6 – Traffic sources analysis with bar charts

- Readings and videos for next three weeks
  - Brand vs. generic search traffic reading TBD
  - Video: Keyword Not Provided in Google Analytics - Part 1: Queries Report, by KISSmetrics
  - Video: Keyword Not Provided in Google Analytics - Part 2: Landing Page Report & Geo Summary Report, by KISSmetrics
  - "Tags don't cut it" and "Topics, themes, subjects," by Stijn Debrouwere

Week 8 – March 1

Basic external search keyword analysis - increasing click-through rates, improving landing pages

Cleaning and organizing keyword traffic data
Analyzing keyword traffic using Excel pivot tables

Homework
- Assignment 7- External search keyword analysis with tables and charts

Week 9 – March 8

Continue working on Assignment 7 - External search keyword analysis with tables and charts

Homework
- Continue Assignment 7- External search keyword analysis with tables and charts
- Readings and videos for next class
  - Video: Google Analytics Academy - Lesson 5.5 - Behavior reports

SPRING BREAK - March 14-18

Week 10 – March 22

Visitor behavior metrics part 1: Story/content analysis

Finding the top story of the week
Page views vs. unique page views by story
Differentiating between home pages, section fronts and story pages

Homework due November 2
- Assignment 8 - Visitor behavior metrics part 1

- Readings and videos for next week
  - "Segmenting Google Analytics by session frequency," by Jonathan Weber, LunaMetrics
  - "How count of sessions is calculated," from the Google Analytics help desk
  - "Reading reports in Google Analytics: recency," by Robbin Steif, LunaMetrics

Week 11 – March 29
    Visitor behavior metrics part 2: Frequency and recency

    Homework due November 9
    - Assignment 9 – Frequency and recency

    - Readings and videos
        - Video: Google Analytics Academy - Lesson 4.4 - Setting up goals and ecommerce
        - "The Google Analytics conversion funnel survival guide," by KISSmetrics
        - "What funnel shapes can tell you," from Advanced Web Metrics with Google Analytics by Brian Clifton

Week 12 – April 5 (The last day to drop this class with a mark "W" is Friday, April 8.)
    Outcome metrics; funnels
    Micro vs. macro conversions; Google Analytics "goals"

    Homework
    - Assignment 10 - Outcomes

Week 13 – April 12

    Differences between web metrics and social media metrics
    Facebook Page metrics and Facebook Insights overview

    Homework
    - Review the Facebook Page of the organization you'll be analyzing for the final project.

Week 14 – April 19
    Final project workshop

Week 15 – April 26
    Final project workshop

FINAL PROJECT - Due on Monday, May 16

IX. Policies and Procedures

Internships

The value of professional internships as part of the overall educational experience of our students has long been recognized by the School of Journalism. Accordingly, while internships are not required for successful completion of this course, any student enrolled in this course that undertakes and completes an approved, non-paid internship during this semester shall earn academic extra credit herein of an amount equal to 1 percent of the total available semester points for this course. To receive instructor approval, a student must request an internship letter from the Annenberg Career Development Office and bring it to the instructor to sign by the end of the third week of classes. The student must submit the signed letter to the media organization, along with the evaluation form provided by the Career Development Office. The form should be filled out by the intern supervisor and returned to the instructor at the end of the semester. No credit will be given if an evaluation form is not turned into the instructor by the last day of class. Note: The internship must by unpaid and can only be applied to one journalism class.

Statement on Academic Conduct and Support Systems

a. Academic Conduct

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 Section 11, *Behavior Violating University Standards* https://scampus.usc.edu/b/11-00-behavior-violating-university-standards-and-appropriate-sanctions/. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct/.

USC School of Journalism Policy on Academic Integrity

The following is the USC Annenberg School of Journalism's policy on academic integrity and repeated in the syllabus for every course in the school:

"Since its founding, the USC School of Journalism has maintained a commitment to the highest standards of ethical conduct and academic excellence. Any student found plagiarizing, fabricating, cheating on examinations, and/or purchasing papers or other assignments faces sanctions ranging from an 'F' on the assignment to dismissal from the School of Journalism. All academic integrity violations will be reported to the office of Student Judicial Affairs & Community Standards (SJACS), as per university policy, as well as journalism school administrators."

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.

b. Support Systems

Equity and Diversity

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* http://equity.usc.edu/ or to the *Department of Public Safety* http://dps.usc.edu/contact/report/. This is important for the safety of the whole USC community. Another member of the university community - such as a friend, classmate, advisor, or faculty member - can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* http://www.usc.edu/student-affairs/cwm/ provides 24/7 confidential support, and the sexual assault resource center webpage https://sarc.usc.edu/ describes reporting options and other resources.

Support with Scholarly Writing
A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* http://ali.usc.edu/ which sponsors courses and workshops specifically for international graduate students.

The Office of Disability Services and Programs
http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html provides certification for students with disabilities and helps arrange the relevant accommodations.

Students requesting test-related accommodations will need to share and discuss their DSP recommended accommodation letter/s with their faculty and/or appropriate departmental contact person at least three weeks before the date the accommodations will be needed. Additional time may be needed for final exams. Reasonable exceptions will be considered during the first three weeks of the semester as well as for temporary injuries and for students recently diagnosed. Please note that a reasonable period of time is still required for DSP to review documentation and to make a determination whether a requested accommodation will be appropriate.

Stress Management
Students are under a lot of pressure. If you start to feel overwhelmed, it is important that you reach out for help. A good place to start is the USC Student Counseling Services office at 213-740-7711. The service is confidential, and there is no charge.

Emergency Information
If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* http://emergency.usc.edu/ will provide safety and other updates, including ways in which instruction will be continued by means of Blackboard, teleconferencing, and other technology.

X. About Your Instructor
My teaching, research and consulting focus on digital analytics for news and nonprofit organizations, data journalism, and the role of journalism in open data. I am the director of the Norman Lear Center's Media Impact Project and the project lead of Open Data LA, a project with the Center for Communication Leadership & Policy and the USC Sol Price School of Public Policy.

I started as a full-time faculty member at USC Annenberg in 2002 as director of the Convergence Core Curriculum. My work experience includes management and consulting positions in online planning and operations, strategic planning, marketing and finance at Gannett, the Los Angeles Times and Media Insight Group. I have an undergraduate degree in journalism and an MBA from USC.