COMM 618: Data-Driven Journalism

Spring 2020

Credits: 3

Instructor: Michelle Minkoff

Contact: [meminkoff@gmail.com](mailto:meminkoff@gmail.com), 847-331-0866 On weekdays, I will try to respond to all emails within 24 hours. If you do not hear from me within that time frame, feel free to send a follow-up

email. Also feel free to call or text, but not after 10pm. If you text, please tell me who you are in your message.

Class time: 9 a.m. - 5 p.m., Saturdays

Office hours: During class or by appointment

Description: Reporters find news every day by talking to people and unearthing secrets. In this class, we're going to do the same — but with data. This is not a graphic design or programming class, but a course that will teach you how to use the huge number of datasets available to reporters to break news and help inform your audience through text and visuals.

Data has never been as plentiful, and important, in human history. It shapes business decisions and government policies but understanding data and visualizing it clearly and without bias is still rare. It’s a large part of the world we cover, and often misunderstood. Without it, our stories are missing a key source. With it, we can get closer to exclusives that others may not be able to get.

When properly produced, data visualization and graphic analysis can vastly widen the range of stories we can tell, and how we tell them. Our goal is to understand four main areas in theory, through practical examples that can be applied as part of our journalism toolkit:

* why to use data and where to get it
* how to find the story within the data, by processing, cleaning and “interviewing” data, and developing a nose for data “smells”
* when and why to use visuals to tell a story
* how to shape data into appropriate, ethical and powerful visual storytelling.

Expectations

1. Come to class or let me know if you can't make it. I understand that situations occur

that make it difficult to attend, and I'm willing to help you if you get in touch with

me. Either way, you will be responsible for the material unless otherwise agreed

upon.

1. Because there are so few classes, you will only receive one excused absence. A

second absence for any reason will result in you losing half of your attendance

points (10% pts. off your grade). A third absence for any reason will earn you a zero

on attendance, and you will not be able to earn more than a B- in the class. After

one unexcused absence, an Early Warning notice will be filed to the student’s

academic advisor.

1. Complete assignments either in class or as homework due before the next class.
2. That means assignments are due at 12:01a.m. on Saturdays, unless otherwise stated. I will do a cursory review of turned-in assignments before our meetings, to optimize our time together.
3. Late assignments will only be accepted if you contact me before the class in which it was originally due, and we reach an agreement.
4. Submit assignments on GitHub (instructions in first lecture) as specified in the

assignment.

1. Consume the news every week, and come to class ready to share at least one story

that uses data in a substantial way. I will randomly select two students to share a story at the beginning of class, so please have a link ready to go.

1. Complete a final project, which will be a 1,000- to 1,300-word story with graphic

proposals, based substantially on data.

1. I reserve the right to change this syllabus at any time, provided all changes are

pushed to GitHub where you can track them in the "commits" section for this

repository. If at any time you feel a change made isn't fair, you can tell me why

and I'll reconsider it.

1. As for software, please make sure (by google searching and downloading) you have the following:
   * Microsoft Excel
   * Sublime text editor (free)
   * Tableau Public (free)
   * We might dabble in some other software as well, which we can download
   * together.
2. I will use email as the primary means of communicating with the class, making your

use a required element. Please make sure you check your AU email daily.

1. All lectures/assignments/class materials will be available on GitHub.
2. OPTIONAL: If you want to see what professional data journalists discuss, subscribe to the National Institute for Computer-Assisted Reporting’s email list NICAR-L (https://www.ire.org/resources/listservs/). This will not affect your grade, but may provide helpful fodder for class discussion, inspiration for your final project, and educate you more about this field.

Grading

Your grade will be made up of three components:

● 50%: Assignments

● 30%: Final project

● 20%: Class attendance and participation, including presenting data stories when I

call on you to do so

Assignment grading scale:

● A: publishable with minimal edits

● B: publishable with significant edits

● C: would need reporter’s revision to be published

o You cannot get more than a C on an assignment if there are factual errors.

● D: unpublishable, even with edits

● F: did not complete work as assigned

Assignments are graded 60% on completion, and 40% on being completed accurately.

Note: I will attempt to have all assignments graded within one week of you turning them

in, and I will send you your assignment grades via email. Questions about assignments can

be asked at any time. If you'd like to see your overall course grade, please talk to me

during class and I'll show you a detailed breakdown.

Collaboration

Students are encouraged to discuss assignments. For the most part, you will be working

on different things, so talking about your work should not be a problem. Whiteboarding

your way through a sticky problem with a friend or looking online for answers to technical

questions are encouraged (data journalists do that all the time, and it is an important skill to build!). Your final work, however, must be entirely your own. A good rule of thumb is that no one else should take over your keyboard while completing an assignment. All American University policies regarding cheating apply to this class.

A typical class

● 9a - 9:15a share data stories

● 9:15a - 11a lecture

● 11a - 12p interactive lesson

● 12p introduce assignment 1

● 12p - 2p working lunch (assignment, office hours)

● 2p - 4p lecture

● 4p introduce assignment 2

● 4p - 5p free time (assignment, office hours, leave early)

Schedule

**Class 1: Start here!/Finding data (Jan. 22, on zoom)**

* Intro to course
* Review pre-class survey
* What can data do
* What is data?
  + What makes something data?
  + Basic data terminology
  + Intro to spreadsheets

o Steps to a data story:

▪ Find data

▪ Clean data

▪ Analyze/interview data

▪ Present data

o Learn how to critique data stories/visualizations

o Kinds of data journalism

o Introduce final project

● Interactive lesson

o Learn to use GitHub

● Assignment 1

o Come up with two final project ideas, complete first data reporting critique

on a published data story related to each topic

● Lecture

o Government data

o Other data sources

o Data types

o Thinking critically about data

● Assignment 2

o Compile own dataset

**Class 2: Cleaning data/intro to exploratory data visualization (Jan. 29, on zoom)**

● Share data stories

● Lecture

o Cleaning overview

● Interactive lesson

o Five cleaning activities done with partners

o Advanced data cleaning techniques

● Assignment 3

o Clean a messy dataset

● Lecture

o Exploratory data visualization, design principles, how to (not) lie with statistics and graphs

● Assignment 4

o Interactive intro to DataWrapper to create basic visualization, independently create a data story using exploratory viz to find a nut graf

**Class 3: Creating structured data from the unstructured (Feb. 5, in-person)**

● Share data stories

* Lecture: Scraping data, without programming and with programming
* Assignment 5
  + Scrape a dataset, attempting both techniques
* Lecture: Unstructured text mining/analysis to understand large corpuses (ex: president’s speech, long govt. document, inspection reports)
* Assignment 6
  + Write a news brief on your own findings based on a text corpus

**Class 4: Analyzing data/Stats for journalists (Feb. 12, in-person)**

* Share data stories
* Lecture
  + Analyzing data, going beyond the basics
* Interactive lesson
* Assignment 7
  + 3 interesting questions to analyze a dataset
* Lecture
  + Working with larger data sets/combining data sets
* Assignment 8
  + “Big” data assignment

**Feb. 19 Presidents' Day Weekend No Class**

**Class 5: Data visualization/Continually updating data (Feb. 26, in person, note there is a two-week break before this session)**

* Share data stories
* Lecture

o Mapping

● Interactive lesson

o QGIS and Tableau Public

● Assignment 9

o Work on visualization component of final project

● Lecture

o Working with continually updating data

● Assignment 10

o Setting up a system to track an updating data set that interests you

* Free time to discuss/work on final project

**Class 6: What the hell is an API, and other questions I was too afraid to ask / Final story**

**presentations (March 5, in-person)**

● Lecture

o What is an API and why does it matter?

● Interactive lesson

o Learning how to learn

● Final project presentations

● Class wrap-up

Critiques

Over the course of the quarter, complete two written critiques on items that are up for discussion in the class spreadsheet. They could be ones you submitted, or ones your classmates submitted. This is to be an at least 750-word essay on what story you think the piece is trying to tell, what it does well and ways in which you would improve it. An “A” critique will cover praise and constructive criticism for both story-driven and presentation-driven parts of a work. You can submit these critiques anytime you like, but one must be submitted on our second week of class, Jan. 29. The second one is due on the fifth session, Feb. 26.

Final project

Due by the last class (March 5) will be a data-driven story of between 1,000 and 1,350

words. This should include at least two proposals for data visualizations and interviews

with multiple sources. The graphics for this story should be integrated into the story's

presentation — not separate pieces. Unless otherwise discussed, the "nut graf" of your

story should be something you discovered using the data skills covered in this course.

You should begin thinking about your final project subject in the first week of class. Considerable value will be given to unique story ideas and execution.

Your project should include original data reporting, analysis and visuals. The project is intended to be published in your portfolio, but the work doesn’t have to meet a certain level of interactivity. More importantly, you’ll be graded on the news value, choice and quality of visuals, and the effectiveness of your data and graphics at telling a story. If your visuals include web interactivity that is smart and effective, you will be rewarded, but the most important trait of your project is effective visual storytelling.

The deadline for choosing your final project story is Feb 5, the third week of class. After I have approved your story idea by Mon, Feb 7, you should submit a **formal, but short memo** about your story idea by Sat, Feb 12. I will meet individually with each of you to make sure you have a good plan for completing it thoroughly and on time. It is imperative that you communicate your story ideas with me before that date, so that we can be sure you have selected a story with good potential by the deadline.

**The final project is due on March 5.**

On that date you will give a short presentation showing off your work to the class, explaining your process behind the story.

**Project guidelines**

This is the breakdown on how your final project will be judged. This should help you decide what’s the most important way to spend your time.

**Appropriate use of visuals**

**30%**

Is it a story that is strengthened by your choice of visuals? Did you choose the right visuals to tell the story?

**Quality of visuals**

**30%**

Are your visuals easy to understand? Are they interesting and enlightening? The visuals should be professional and polished.

**News value**

**20%**

Is your story relevant to your beat? Is it an original story idea? This is also where you will score points on good reporting and writing that complement and explain the visuals.

**Design**

**10%**

On the last day of class, you will be expected to give a 5–10-minute presentation to the rest of the class on why you chose your topic, how you found/cleaned your data, how you turned it into a story and why you made the visual storytelling decisions that you did. Presentation should show what you learned, show the reasoning behind your decisions, and be clear enough that others can learn from the lessons you learned.

**Presentation**

**10%**

Does your story have appropriate fonts, colors, alignment and hierarchy? Is there a clear sense of order on the page?

Misc.

Discrimination and Harassment (Title IX)

American University expressly prohibits any form of discriminatory harassment including

sexual harassment, dating and domestic violence, sexual assault, and stalking. The

University is an equal opportunity, affirmative action institution that operates in

compliance with applicable laws and regulations. AU does not discriminate on the basis of

race, color, national origin, religion, sex (including pregnancy), age, sexual orientation,

disability, marital status, personal appearance, gender identity and expression, family

responsibilities, political affiliation, source of income, veteran status, an individual's genetic

information, or any other bases under federal or local laws in its programs and activities.

If you experience any of the above, you have the option of filing a report with the

University Police (202-885-2527) or the Office of the Dean of Students

(dos@american.edu or 202-885-3300). To file a Title IX complaint or for more information

on your rights, contact the Title IX Program Officer

(202-885-3373 or TitleIX@american.edu). Please keep in mind that all faculty and staff who

are aware of or witness this conduct are required to report this information to the

university, regardless of the location of the incident, with the exception of counselors in

the Counseling Center, victim advocates in OASIS, medical providers in the Student Health

Center, and ordained clergy in the Kay Spiritual Life Center. For more information, including

a list of supportive resources on and off-campus, contact OASIS (oasis@american.edu or

202-885-7070) or check out the comprehensive list of resources to help you find support.

Emergency preparedness

In the event of an emergency, American University will implement a plan for meeting the

needs of all members of the university community. Should the university be required to

close for a period of time, we are committed to ensuring that all aspects of our educational

programs will be delivered to our students. These may include altering and extending the

duration of the traditional term schedule to complete essential instruction in the traditional

format and/or use of distance instructional methods. Specific strategies will vary from

class to class, depending on the format of the course and the timing of the emergency.

Faculty will communicate class- specific information to students via AU e-mail and

Blackboard, while students must inform their faculty immediately of any absence.

Students are responsible for checking their AU e-mail regularly and keeping themselves

informed of emergencies. In the event of an emergency, students should refer to the AU

Student Portal, the AU Web site (www.prepared.american.edu) and the AU information

line at (202) 885-1100 for general university-wide information, as well as contact their

faculty and/or respective dean’s office for course and school/ college-specific information.

Support Information

There is a wide range of university services available to support you in your efforts to meet

the course requirements and successfully completing this course, including:

● Academic Support Center (x3360, MGC 243) offers study skills workshops,

individual instruction, tutor referrals, and services for students with learning

disabilities. Writing support is available in the ASC Writing Lab or in the Writing

Center, Battelle 228.

● Counseling Center (x3500, MGC 214) offers counseling and consultations regarding

personal concerns, self‐help information, and connections to off‐campus mental

health resources.

● Disability Support Services (x3315, MGC 206) offers technical and practical support

and assistance with accommodations for students with physical, medical, or

psychological disabilities.

If you qualify for accommodations because of a disability, please notify me in a timely

manner with a letter from the Academic Support Center or Disability Support Services so

that we can make arrangements to address your needs.