QAC 250L-01 Topics in Journalism: Introduction to Data Journalism

Instructor(s): Andrew Ba Tran (Koeppel Fellow, ACSPL), Robert Kabacoff (QAC)
Term: Spring 2017
Credits: 1
Prerequisites: none

Course Location:

This course has both lab and discussion components. Labs will take place in ALL204, while discussions will take place in SCIE189. Please check Moodle for the correct location of each meeting.

Course Description:

This course serves as an introduction to the field of data journalism. Students will learn how the best practices of journalism and data science used together can lead to great stories. The R software platform will be the primarily vehicle for data analysis and visualization. Through case studies and practical assignments, students will gain knowledge of how to tell compelling stories while practicing modern, hands-on methods in acquiring, exploring, analyzing and reporting about data. By the end of the course, students will be able to produce polished data stories and be prepared to continue pursuing their interests in either journalism or data science.

Throughout the course, students' skills and comprehension will be assessed via frequent writing and lab assignments and participation in discussions. Students will also be required to conduct original reporting and data visualization creation. The course will end with a final group project of a story based on reporting, writing, data analysis, and visualization methods learned in class. The story should achieve the quality of publication in a local or national news site. The entire process of story creation will mirror the process in a newsroom from pitch to draft to edits to copy-edits and each step will be evaluated.

Assessment:

- Class participation (20%)
- Writing assignments (25%)
- Programming assignments (25%)
- Final project – written article based on original data based reporting (30%)

Readings:

- A. Alberto, The Truthful Art: Data, Charts, and Maps for Communication
- J. Gray, I. Chambers, & I. Bounegru, The Data Journalism Handbook
C. Wheelan, *Naked Statistics: Stripping the Dread from the Data*
D. Huff, *How to Lie with Statistics*
Assigned articles

Note that each text is also on reserve at the Olin Library in both hard copy and electronic formats.

**Unit 1: Introduction to data journalism (2 weeks)**

**Concepts**

- Understanding the basics of good reporting, structure, and storytelling
- The evolution of data journalism. From computer-assisted reporting to integrating social science methods
- Types of data journalism projects that exist today, e.g. data-driven investigation, “explanatory” journalism, polling, predictive journalism
- The different kinds of roles on a newsroom data or investigative team, and how students’ individual skills and interests might fit in
- Introduction to data analysis tools for loading data, basic summarization and visualization, and presenting findings.

**Unit 2: Getting data (3 weeks)**

**Concepts**

- What data is and is not, how data is most effectively structured
- Gathering and visualizing original data
- Open data— Where and from whom
- How to acquire data from the government by using the Freedom of information law, and what the government is and is not required to disclose
- Determining whether a data source is reliable and cleaning data so that it’s usable
- Dealing with difficult sources and difficult data
- Cleaning and preparing data for further analysis
- Other methods of acquiring data, e.g. scraping, APIs, crowdsourcing, polling, surveys

**Unit 3: Understanding data (4 weeks)**

**Concepts**

- Joining and summarizing data sets for deeper insight
- “Interviewing” data as if it were a source, using intuition to make hypotheses and testing intuition against data
- Treating data as a source. Interviewing data by making a hypotheses and testing intuitions against data.
- Spatial analysis and telling stories with maps
- Introduction to advanced data analysis techniques for describing relationships among variables.
Unit 4: Telling stories with data (4 weeks)

Concepts
- Methods for exploring data visually
- Process of pitching and storyboarding stories in a newsroom
- Forms that data stories come in, e.g. text features, news apps, data visualization
- Newsworthiness, ethics, and the difference between a dataset and a story
- Fundamental concepts of data visualization, identifying the appropriate type of visualization for a dataset, creating accurate and easily readable charts
- Mining text as a method for data analysis and stories
- Creating interactive data products
- The 2016 presidential elections, or the trouble with statistics and expressing concepts of probability

Class Structure
Classes take the form of discussions, lectures, and hands-on data analysis and visualization workshops. Students will need to devote a substantial amount of out of class time completing readings and assignments. In particular, it is important that readings be completed prior to the class in which they will be discussed.

Grade Reappraisal
The professors will be available to discuss individual grades throughout the semester. Students seeking reappraisal of graded assignments should discuss his/her work with the instructor within two weeks of the assignment due date. No reappraisal will be considered after this two-week period.

Accommodations
It is the policy of Wesleyan to provide reasonable accommodations to students with documented disabilities. Students are responsible for registering with Disabilities Services and making requests known to their instructor. If you require accommodations in this class, please make an appointment with your professors during the 1st week of the semester, so that appropriate arrangements can be made.

Passing Letter Grades/Percentages
A 95-100%; A- 91-94.9%; B+ 88-90.9%; B 85-87.9%; B- 81-84.9%; C+ 78-80.9%; C 75-77.9%; C-71-74.9%; D+ 68-70.9%; D 65-67.9%; D- 60-64.9%