

DMS 518 Dataveillance

Fall 2015

W 1:00-4:40 pm

CFA 246

Reg. # 24023

Instructor: Mark Shepard shepard6@buffalo.edu

Office: CFA 247

Office hours: Wednesday 12-1pm and by appointment

Description

That we live in a society permeated by data is by now commonplace. Our mobile devices generate data about our movements and transactions as we go about our daily business. Social media platforms aggregate data documenting our online interactions with others. Government agencies collect, store and process data on virtually every aspect of society through a wide range of public and private sources. This course will investigate how stories are told through data. Readings in the history and theory of surveillance and dataveillance will be complemented with analysis of selected projects and precedents in the media arts. We will study the work of media artists alongside stories told by mainstream media (data journalism) and the NSA. Students will learn how to create datasets (either through sensing, surveying, acquiring, or accessing data) from which they will develop visual and/or aural narratives around subjects of their choosing.

Course Requirements and Work Expectations

Students should expect to invest on average two hours of outside preparation for each hour in class (8 hours/week).

Reading: Assigned readings are to be completed prior to the class session in which they will be discussed. All required readings will be made available in PDF format.

Discussion: Everyone is required to participate in each class discussion. Working in pairs, students are required to direct the discussion of two class sessions. This includes meeting prior to class to discuss the readings, preparing topics for debate, researching works cited, and moderating the discussion in class.

Weekly Responses: Each week (with the exception of weeks where a workshop is scheduled) each student is expected to respond to the readings, works and discussions by contributing a minimum of 500 words to a blog. These may take the form of critical analysis on the topic at hand, annotated references to relevant art works or further readings, theoretical connections with previous material, etc. Students are required to set up their own blog dedicated for this purpose. Instruction on setting up a blog will be provided in class.

Workshops: Everyone is required to participate in scheduled workshops. Workshops introduce technical methods and skills through hands-on exercises designed to be completed in class, and provide an opportunity for students to receive critical feedback on project development.

Final Project: The final project will consist of visual and/or aural narratives around subjects of their choosing. Project development will be supported by the scheduled workshops. Work produced for another class or studio is not acceptable, however students are encouraged to pursue projects related to their personal lines of inquiry.

Schedule (subject to change)

9/2 Introduction

- Rob Kitchin and Tracey P. Lauriault, "Towards critical data studies: Charting and unpacking data assemblages and their work," *The Programmable City Working Paper 2* (2014)

9/9 From Disciplinary to Control Societies

- Michel Foucault, "Panopticism," *Discipline and Punish: The Birth of the Prison* (1975), <http://foucault.info/documents/disciplineandpunish/>
- Gilles Deleuze, "Postscript on Control Societies," *Negotiations* (1992)

9/16 Surveillance > Dataveillance I

- John Gilliom and Torin Monahan, "Introduction," *SuperVision: An Introduction to the Surveillance Society* (2013)
- Philip E. Agre, "Surveillance and Capture: Two Models of Privacy," *The New Media Reader* (1994)

9/23 Surveillance > Dataveillance II

- John Gilliom and Torin Monahan, "My Cell, My Self," *SuperVision: An Introduction to the Surveillance Society* (2013)
- Rita Raley, "Dataveillance and Countervailance," *"Raw Data" is an Oxymoron* (2013)

9/30 Data, Fact, Evidence

- Daniel Rosenberg, "Data Before the Fact," *"Raw Data" is an Oxymoron* (2013)
- Rob Kitchen, "Conceptualizing Data," *The Data Revolution* (2014)

10/7 Guest Lecture: Marc Böhlen

10/14 Data, Big and Small

- Rob Kitchen and Tracey Lauriault, "Small Data, Data Infrastructures and Big Data" (January 8, 2014). *The Programmable City Working Paper 1*. <http://dx.doi.org/10.2139/ssrn.2376148>

- danah boyd and Kate Crawford, “Six Provocations for Big Data,” paper presented at *A Decade in Internet Time: Symposium on the Dynamics of the Internet and Society*, Oxford Internet Institute (2011)

10/21 **Project Concept Presentations**

Workshop: Data Gathering

Sensing, surveying, acquiring, and accessing data

10/28 **Profiling, Sorting, Anticipating**

- Stephen Graham, “Software Sorted Geographies,” *Progress in Human Geography* 29 (2005)
- Rob Kitchen, “Ethical, Political, Legal, Social Concerns,” *The Data Revolution* (2014)

Workshop: Data Wrangling

Cleaning, parsing, and filtering data.

11/4 **Edward Snowden and the NSA**

Screening: Laura Poitras, *Citizenfour* (2014)

- Glen Greenwald, “Contact,” *No Place to Hide* (2015)
- Trevor Paglen, “New Photos of the NSA and Other Top Intelligence Agencies Revealed For First Time,” *The Intercept* (2014), <https://firstlook.org/theintercept/2014/02/10/new-photos-of-nsa-and-others/>
- Trevor Paglen, “Turnkey Tyranny: Surveillance and the Terror State,” *Creative Time Reports* (2013), <http://creativetimereports.org/2013/06/25/surveillance-and-the-construction-of-a-terror-state/>
- The Guardian, *The NSA Files*, <http://www.theguardian.com/us-news/the-nsa-files>

Workshop: Data Visualization / Sonification

Representing data through sound and image.

11/11 **Data Journalism**

- Jonathan Gray, Liliana Bounegru and Lucy Chambers, “Introduction,” *The Data Journalism Handbook* (2012) <http://datajournalismhandbook.org/>
- Simon Rogers, “Wikileaks data journalism: how we handled the data,” *The Guardian*, <http://www.theguardian.com/news/datablog/2011/jan/31/wikileaks-data-journalism>

Workshop: Data Mapping

Mapping data, interactive filtering

11/18 **Project Development Review**

11/25 [no class, Thanksgiving break]

12/2 **Open Lab: Project Development**

12/9 **Open Lab: Project Development**

12/16 **Final Project Presentations**

Required Texts

All readings will be made available in PDF format.

Project References

- Enrico Bertini and Moritz Stefaner, *Data Stories* (2012– present) <http://datastori.es/>
- James Bridle, *Dronestagram* (2013– present), <http://dronestagram.tumblr.com/>
- Hasan Elahi, *Tracking Transience v2.0* (2002– present) <http://elahi.umd.edu/track/>
- Heather Dewey Hagborg, *Invisible* (2014) <http://biogenfutura.es/>
- Adam Harvey, *CV Dazzle* (2012– present) <http://cvdazzle.com/>
- Institute for Applied Autonomy, *i-SEE* (2001–2005) <http://www.appliedautonomy.com/isee.html>
- Chris Oakley, *The Catalogue* (2004) <http://www.chrisoakley.com/the-catalogue>
- Julian Oliver and Daniil Vasiliev, *PRISM: The Beacon Frame* (2014) <http://julianoliver.com/output/the-beacon-frame>
- Trevor Paglen, *Code Names of the Surveillance State* (2014) http://www.paglen.com/?l=work&s=code_names_of_the_
- Preemptive Media, *Swipe* (2004) <http://www.preemptivemedia.net/swipe/>
- Surveillance Camera Players (1996–2006) <http://www.notbored.org/the-scp.html>
- Christoph Wachter and Mathias Jud, *Can You Hear Me* (2014) <https://canyouhear.me>

Technical References

- School of Data - <http://schoolofdata.org/>
- Data Journalism Handbook - <http://datajournalismhandbook.org/>
- Jeffrey Stanton, *Introduction to Data Science* - https://ischool.syr.edu/media/documents/2012/3/DataScienceBook1_1.pdf
- Ben Fry, *Visualizing Data* (2008) https://books.google.com/books/about/Visualizing_Data.html?id=6jsVAiULQBgC
- D3.js <http://d3js.org/>

Attendance

Students are required to attend all class sections and to be on time to class. There is no such thing as an “allowable” unexcused absence. As your participation in class discussions amounts to 15% of your grade for this course, ANY missed class will result in a lowering of your grade. Arriving more than 15 minutes late for two (2) classes is considered one (1) absence. MISSING MORE THAN 3 CLASSES WITHOUT AN ACCEPTABLE EXCUSE WILL RESULT IN FAILURE OF THE COURSE. NO EXCEPTIONS. IT IS YOUR RESPONSIBILITY TO KEEP TRACK OF YOUR UNEXCUSED ABSENCES. Acceptable excuses include sickness, accidents, severe weather, family crisis and other contingencies. Let’s face it. Sometimes *\$%! happens. However, when it does, it MUST be documented in some concrete form in order not to be counted as an absence.

Grading

Participation in Class Discussions: 20%

Weekly Responses: 40%

Final Project: 40%

Grading is viewed as a mechanism for communicating an evaluation of the student's work and progress. It is an assessment, not reward nor punishment. Grades will be interpreted in the following way:

A *Exceptional work.* Meets and exceeds all criteria. Clear understanding of concepts and techniques. Exhibits insights indicating that the experiences from one project/exercise to the next are cumulative and transferable. Constructively challenges and criticizes issues brought forth during the semester. Develops capability to be constructively self-critical. Assumes responsibility for intellectual development of self and encourages intellectual development of colleagues. Maintains perfect attendance. This grade indicates clear capability to perform well at the next level.

B *Above average work.* Meets all criteria. Good understanding of concepts and techniques. Reasonable carry-over from previous exercises. Constructively challenges issues brought forth during the semester. Maintains excellent attendance. This grade indicates a reasonable prediction of competent performance at the next level.

C *Average work.* Meets minimum requirements. Indicates some difficulty in understanding concepts and techniques or in transferring experience from one project to the next. Exhibits need for improvement in critical thinking skills. Maintains good attendance. This grade indicates mediocre to poor performance at the next level.

D *Below average work.* Does not meet minimum requirements. Indicates serious difficulties in understanding concepts and techniques, and/or in the transfer of information. Probable indication of poor attendance and lack of motivation.

F *Poor work.* This grade is a probably indication of late work, incomplete work, work not submitted, or overall work so weak that a passing grade is not reasonable.

Incomplete Policy

Incompletes are only granted in the case of legitimate, documented emergencies, and only to students in good standing in the course.

Academic Integrity

Academic integrity is a fundamental university value. Through the honest completion of academic work, students sustain the integrity of the university while facilitating the university's imperative for the transmission of knowledge and culture based upon the generation of new and innovative ideas.

Academic dishonesty includes, but is not limited to, the following:

- *Previously submitted work.* Submitting academically required material that has been previously submitted—in whole or in substantial part—in another course, without prior and expressed consent of the instructor.
- *Plagiarism.* Copying or receiving material from any source and submitting that material as one's own, without acknowledging and citing the particular debts to the source (quotations, paraphrases, basic ideas), or in any other manner representing the work of another as one's own.
- *Cheating.* Soliciting and/or receiving information from, or providing information to, another student or any other unauthorized source (including electronic sources such as cellular phones or other devices), with the intent to deceive while completing an examination or individual assignment.
- *Falsification of academic materials.* Fabricating laboratory materials, notes, reports, or any forms of computer data; forging an instructor's name or initials; resubmitting an examination or assignment for reevaluation which has been altered without the instructor's authorization; or submitting a report, paper, materials, computer data, or examination (or any considerable part thereof) prepared by any person other than the student responsible for the assignment.
- *Misrepresentation of documents.* Forgery, alteration, or misuse of any University or Official document, record, or instrument of identification.
- *Confidential academic materials.* Procurement, distribution or acceptance of examinations or laboratory results without prior and expressed consent of the instructor.
- *Selling academic assignments.* No person shall sell or offer for sale to any person enrolled at the University at Buffalo any academic assignment, or any inappropriate assistance in the preparation, research, or writing of any assignment, which the seller knows, or has reason to believe, is intended for submission in fulfillment of any course or academic program requirement.
- *Purchasing academic assignments.* No person shall purchase an academic assignment intended for submission in fulfillment of any course or academic program requirement."

Specific Needs

If you require classroom or testing accommodations due to a disability, please contact Accessibility Resources, located at 25 Capen Hall. AR can be reached by phone at (716) 645- 2608 and (716) 645-2608 or by email at stu-accessibility@buffalo.edu. Please inform me as soon as possible about your needs so that we can coordinate your accommodations.