DATA, THE POLITICS OF THE INFORMATION SOCIETY, AND YOU!

FYS 029  
Fall 2015  
Tuesday/Thursday 12:30-1:45 in Meredith 102

Co-instructors:

Dan Alexander, Professor and Associate Chair  
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Office hours:
M 12:30-1:30; 5-6;  
Wed 9:30-10:30; 3:30-4:30 (except 9-16, 10-21, 11-18 and 12-9)  
Th 2:30-3:30

Debra L. DeLaet, Professor and Chair  
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Office hours:
In office (Meredith 210): Wednesdays 1:30-3:30 or by appointment  
Via Face Time or Skype: Mondays and Fridays 9 a.m.-3 p.m., by appointment

Joint office hours with both instructors can be scheduled upon request between 1-2 pm on Wednesday.
COURSE DESCRIPTION

This first year seminar will examine and analyze the expanding role of data in our social, political, and economic lives. Economic efficiencies, technological developments such as artificial intelligence and machine learning, and an ascendant analytical worldview now allow for the storage and processing of massive amounts of information and data. ‘Big data’, a term that refers to extremely large data sets that companies, governments, non-profit organizations, and other actors use to identify patterns and trends to achieve their objectives, represents the extraordinary growth in the use of digitized information to structure and shape our daily lives in critical ways. Companies collect big data so you get better ad clicks and so they can improve their bottom lines. Governmental institutions use big data as a surveillance tool. Even social media—our tweets, family photos, news stories, personal opinions, daily routines and habits—has become a new source for big data and other data-driven approaches to collective decision-making and problem-solving. In turn, a data-driven approach to our everyday lives—whereby we track fitness and nutrition, travel and recreation, and our social plans via apps—is increasingly prevalent, not always for the good.

But data can have many positive uses. Foremost, it enables us to strive for decisions that are driven by analytical evidence rather than anecdotal or impressionistic thinking. Evidence-based decision-making should lead to more accurate analyses by individuals, organizations, and governments. At the same time, overreliance on data to structure collective decision-making has a downside. It involves information on such a vast scale that the evidence that informs decision-making may be very far removed from the individuals and communities affected by key decisions—moreover, it may ignore important evidence gathered by other means. Critics argue that a data-driven approach to our social, political, and economic lives risks diminishing our humanity as digitized interactions displace genuine interpersonal relationships and as individual privacy is threatened by an ever-expanding sphere of consumable ‘public’ data. This FYS will provide students with opportunities to investigate both the positive uses and downside risks of a digitized analytical approach to collective decision-making and problem-solving as they consider its effects in their daily lives as individuals, consumers, and citizens.

There are no quantitative pre-requisites for this course. The course will be informed by insights from multiple disciplines, and students whose primary interests are in mathematics, the natural sciences, the humanities, the social sciences, or the arts will be equally at home in this class.

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CORE ACADEMIC GOALS AND LEARNING OUTCOMES

• Our discussion briefs are intended to help students be responsible for reading the course material and for coming to class prepared to discuss assignments.
• Our reflection papers are designed to help students periodically synthesize material from throughout the course and to help them develop and improve their writing skills over the course of the semester.
• With our final project we hope to encourage students to apply insights gained throughout the semester to a deeper examination of the personal and social implications of analytical, data-based thinking, both independently and within a team structure.
• Careful reading of texts from a range of disciplines as well as online data sources will help students develop both their reading and critical thinking skills. In particular, course engagement with websites that focus on big data sets will help students develop their information literacy skills.
• The fact that the course is being taught by both a professor of mathematics and a professor of the social sciences whose training and research emphasizes different substantive and methodological approaches will give students multidisciplinary perspectives on academic inquiry.

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COURSE REQUIREMENTS

1. Discussion Briefs (15 total a 2% = 30% of your grade): These briefs are based on your daily readings. See Blackboard/syllabus for more details on the discussion briefs. See item #6 below for more information on the readings.

2. Digital catalog and class profile (10% of your grade): This assignment is introduced in the syllabus (see Day 1) and expanded upon in the handout you will receive on Day 2.

3. Unit reflection papers (3 @ 10% = 30% of your grade): The unit reflection papers will require students to integrate, synthesize, and analyze concepts and themes covered during each unit of the class. See Blackboard/syllabus for more details.

4. Project-based group assignment (25% of your grade): This project will be a combination of individual and group work and include a presentation. Around mid-semester, we will discuss this project in class and provide a handout describing the details of the project as well as our expectations for it. See Blackboard/syllabus for more details.

5. Class attendance and participation: (5% discretionary on the part of the instructors): Active student participation is an essential part of this course. Students should come to class prepared to discuss the assigned readings in a thoughtful, productive, and civil manner. You should be ready to ask and answer questions on the assigned readings. You need to participate actively in the class, but you should not attempt to dominate class discussion. We expect that students often will disagree with each other and (we hope) with us. We will encourage an atmosphere in which we are
free to challenge and criticize each other's arguments, but we expect all of us to be respectful and civil in our disagreements. This course will stress active student learning. We expect that your consistent attendance and participation will facilitate your understanding of the course material. Moreover, because you will be required to integrate information from readings, lectures, and classroom discussions on the midterm and the final, and in your papers, your performance in the course should benefit from consistent attendance and participation.

With this in mind, we will not grade your attendance and participation formally on a class-by-class basis, but we will assign a discretionary participation grade (5% of your total grade) based on our assessment of your overall contribution to the intellectual life of the class.

6. **Required daily readings and viewings:** In addition to the hand-in assignments described above, there will be readings, and in some cases viewings, that you need to read before a given class. These readings or viewings are listed in the entry for the class prior to the day they are due. For example, the readings or viewings that need to be completed by Thursday, September 17 will be listed in the Tuesday, September 15 class entry. These readings also form the basis for your discussion briefs. So, the discussion brief due on Thursday, September 17 will be based on the readings that are also due on the 17th.

7. **Answering your questions about Drake:** Each day we will begin class by addressing questions you might have about Drake. These questions could be as simple as “how do I get to Alexander’s office in Howard?” or “where can I get a good milk shake?” as complex as “how do I choose a major?” or “what is the class registration process like?”

8. **Cheating and plagiarism will not be tolerated:** Plagiarism is the act of trying to pass off someone else's ideas, words, thoughts or inventions as one's own. Plagiarism may be intentional or unintentional, but it is a violation of academic integrity in either case. You must acknowledge your use of other's work when you quote them word for word (you must use quotation marks in the case of direct quotations), paraphrase, borrow ideas, incorporate factual information from someone else's work, or rely on another person's organization of material. Any unattributed cut and paste of text, images, etc. also constitutes plagiarism. You do not need to provide citations for common knowledge, but it is better to err on the side of caution if you have any doubts. If your paper does not include adequate citation and/or we suspect plagiarism, we will not grade your paper until you provide satisfactory documentation of your sources. If we discover a case of cheating or plagiarism, we will impose the most serious penalty allowed under university regulations and contingent on the nature of the violation. In cases of egregious plagiarism or cheating, We will give you a failing grade for the course and may recommend additional penalties at the college or university level, including suspension or expulsion. See the statement on Academic Honesty and Integrity at the Department of Political Science homepage for further details. Also, see me if you still have questions about academic dishonesty.

9. **Technology in and out of the Classroom:** Phones, tablets, computers and other electronic devices may only be used in the classroom for academic purposes related to the course. If students abuse the privilege of using these devices in the classroom,
If a student’s use of electronic devices becomes disruptive to the learning of other students and the student refuses to turn off or disable the device upon request, we reserve the right to ask the student to leave the classroom. Students must turn off and put away any electronic devices during in-class quizzes, exams, or any other assessments unless we explicitly indicate otherwise. Email is the best way to reach me outside of class. We check my email frequently during normal business hours but do not check or respond to email during classes or meetings. Under normal circumstances, it is reasonable for you to expect me to respond to your email queries within 24 hours on weekdays. If you have an urgent question that you would like me to respond to promptly, you will be more likely to reach me if you send the email prior to the end of the workday at 5 p.m. Although we may try to answer emails sent on the weekend as possible or appropriate, we do not guarantee that we will respond promptly to email sent on the weekends.

10. **Disability Accommodations:** Students with disabilities requiring reasonable academic accommodations should see us during the first weeks of class. We can discuss your needs and work with Student Disability Services to design appropriate accommodations.

11. **Office for Sexual Violence Response and Healthy Relationship Promotion:** Drake University is committed to the prevention of sexual assault and sexual misconduct and to support for victims when it does occur. If you are dealing with the consequences of sexual assault or misconduct, you may consult the [Office for Sexual Violence Response and Healthy Relationship Promotion](https://www.drake.edu/studentaffairs/sexualequality) for assistance with your options and for potential resources for support. Due to the nature of the material for this course, some topics may serve as triggers for survivors of sexual assault. We will strive to provide appropriate trigger warnings. Students should also feel free to speak with me about exemptions from participation or alternative assignments if material on the syllabus suggests that it might serve as a trigger.

12. **Writing Workshop:** Students who would like help to improve and develop their writing should consider making an appointment at the Writing Workshop. The workshop offers individualized support from trained student tutors who will work with students on a range of writing issues, including fluency, organization, development, analysis, and argument. Click here to schedule an appointment with the [Writing Workshop](https://www.drake.edu/studentaffairs/sexualequality).

**Home.**

**GRADING SCALE (for both individual assignments and for course)**

- A 90-100 (Excellent)
- B 80-89 (Good)
- C 70-79 (Satisfactory)
- D 60-69 (Poor)
- F 0-59 (Failure)

**Home.**
REQUIRED TEXTS/ COURSE MATERIALS


4. Additional required readings will be available in at least one of the following three formats: 1) as electronic links directly within the syllabus or on Blackboard; 2) as pdf files available in the Course Readings folder on Blackboard; and 3) as hard copies to be distributed in class.

Home.

READING ASSIGNMENTS AND SCHEDULE

Part We: Our Digital World

Class 1 (Tuesday, September 1) WELCOME TO COLLEGE

- Ice breaking discussion
- Discussion: How to Make a Successful Transition to College
- Introduction to course
- Assignments for next class
  - Read syllabus
  - Begin to read *The Circle*. (Book I of the novel goes from pp. 1-306. We will begin to discuss this part of the novel on September 8 so read as much as you can.)
  - Discussion brief– a digital device census: How many digital/wifi/online devices are in your home? How/ for what purposes do you use these devices? Your digital census is due in class on Thursday September 3.
  - Your digital catalog (due Class 3, Tuesday September 8): Record your digital behavior for Friday (a weekday), Saturday or Sunday (a weekend) and Labor Day (a holiday). How frequently (and for what duration) did you use your phone, tablet, computer, etc.? For what purposes did you use these devices? In addition to personal devices, what other digital devices or computer sensors did you interact with in your daily life? Be as thorough as you can in compiling this digital catalog, and include websites you visited. We will share additional guidelines in class on Thursday. Your digital catalogs will be due on Tuesday, September 8, and we will discuss these catalogs in class that day.

Class 2 (Thursday, September 3) THE DIGITAL BEHAVIOR OF OUR CLASS

- Introduce *The Circle*
- Assignments for next class
  - Reminder: Digital catalog due Tuesday September 8
novel on Tuesday
  o Watch "Be Right Back," The Black Mirror (48 minutes). We will discuss this episode on Thursday, September 10.
  o Discussion brief

Class 3 (Tuesday, September 8) THE DIGITAL BEHAVIOR OF OUR CLASS

- Preliminary discussion of The Circle
- Assignments for next class
  o Finish reading The Circle Book I
  o Read: Alice Gregory, "Hunger Games: is our Tech Obsession Making Anorexia Worse?" The New Republic December 18, 2013
  o Discussion brief

Class 4 (Thursday, September 10) SOCIAL MEDIA, RANKING, AND DIGITAL MEASUREMENT IN THE INFORMATION AGE

- Continue discussion of The Circle
- Assignments for next class
  o Read The Circle Book II (pp. 307-491)
  o Watch "The Entire History of You," The Black Mirror (49 minutes).
  o Discussion brief

Class 5 (Tuesday, September 15) PRIVACY AND TRANSPARENCY IN THE DIGITAL WORLD

- Continue discussion of The Circle
- Assignments for the next class
  o Read The Circle Book III (pp. 495-497)
  o Watch "15 Million Merits," The Black Mirror (62 minutes)
  o Discussion brief

Class 6 (Thursday, September 17) THE PERSONAL IS DIGITAL

- Complete discussion of The Circle
- Assignments for next class
  o Complete initial draft of Reflection Paper #1

Class 7 (Tuesday, September 22) WORKSHOP FOR REFLECTION PAPERS

- Workshop drafts of reflection papers
- Assignments for next class
  o Revise and resubmit final draft of Reflection Paper #1.
  o Read The Naked Future, Introduction and Chapter 1
  o We will discuss Chapters 1-5 of The Naked Future on Tuesday, September 29. You may begin to read ahead if you have time.
Part II: Back to the Future: Towards a Digital Utopia?

Class 8 (Thursday, September 24)  HOW AND WHY WE USE DATA (PART 1)

- Introduction to our discussion of The Naked Future
- Assignments for next class
  - Read Chapters 1-5 of The Naked Future.
  - Discussion brief

Class 9 (Tuesday, September 29)  THE INEVITABILITY OF A DIGITIZED WORLD

- Continue discussion of The Naked Future
- Assignments for next class
  - Read Chapters 6-8 of The Naked Future.
  - Discussion brief

Class 10 (Thursday, October 1)  HOW THE DIGITAL WORLD CHANGES THE WAY WE LIVE

- Continue discussion of The Naked Future
- Assignments for next class
  - Read Chapters 9 and 10 of The Naked Future.
  - Discussion brief

Class 11 (Tuesday, October 6)  ARE WE EXPERIENCING A DIGITAL REVOLUTION?

- Complete discussion of The Naked Future
- Assignments for next class
  - Read: Mary Manjikian, "The Magic of Completeness and the Politics of Invisibility," academia.edu
  - Read: Julia Carpenter, "Google's Algorithm Shows Prestigious Job Ads to Men, but Not to Women" The Washington Post
  - Read: Kelly J. Baker, "Should we Ban Brilliance?" Chronicle Vitae
  - Read: Kaila Prins, "Your Fitbit is Ruining Your Relationship with Your Body," Everyday Feminism August 26, 2015
  - Discussion brief

Class 12 (Thursday, October 8)  "IT'S NOT THE SIZE OF THE DATA SET, IT'S THE MAGIC IN IT": FEMINIST CRITIQUES OF BIG DATA

- Discuss feminist critiques of big data
- Assignments for next class
  - Read Chapter 11 of The Naked Future
  - Read: Annalee Newitz, "Here's What You Need to Know about Big Data"
Class 13 (Tuesday, October 13) WORKSHOP FOR REFLECTION PAPERS

- Workshop drafts of reflection papers
- Assignments for next class
  - Revise and resubmit final draft of Reflection Paper #2

Class 14 (Thursday, October 15) INTRODUCTION OF FINAL PROJECT

- Discuss guidelines for final project
- Go over potential examples of final projects
- Assignments for next class
  - Read Introduction and Chapter 1 from The Signal and the Noise.
  - Discussion brief

No class, October 20 (Fall Break)

Part III: The Uses and Abuses of Data in Practice

Class 15 (Thursday, October 22) HOW AND WHY WE USE DATA (PART 2)

- Begin discussion of The Signal and the Noise
- Assignments for next class
  - Read Chapter 2 from The Signal and the Noise
  - Read: 2004 Presidential Election: MicroTargeting
  - Discussion brief

Class 16 (Tuesday, October 27) POLITICS AND DATA ANALYSIS

- Continue discussion of The Signal and the Noise
- Assignments for next class
  - Read Chapter 4 from Freakonomics [Chapter will be posted on Blackboard.]


Nate Silver, "Black Americans are Killed as 12 Times the Rate of People in Other Developed Countries," *Five Thirty Eight*

Discussion brief

Class 17 (Thursday, October 29) DATA ANALYSIS, RACE, AND CRIME

- Discussion of the positive uses and downside risks of data analysis in crime prevention
- Assignments for next class
  - Read Chapter 7 from *The Signal and the Noise*
  - Read: Atul Gawande, "The Hot Spotters," *The New Yorker, January 24, 2011*
  - Read: Tina Rosenberg, "The Body Counter," *Foreign Policy, February 27, 2012*
- Discussion brief

Class 18 (Tuesday, November 3) DATA ANALYSIS AND GLOBAL ISSUES

- Continue discussion of *The Signal and the Noise* and the potential positive uses of data analysis
- Assignments for next class
  - Read excerpts from George Orwell’s *1984*, pp. 239-260 (Signet Classic edition). These excerpts will be posted on Blackboard.
  - Movie night (Wednesday, November 4): Watch *Citizenfour*
- Discussion brief

Class 19 (Thursday November 5) BIG DATA AND THE SURVEILLANCE STATE

- Discussion of *1984* and *Citizenfour*
- Assignments for next class
  - Read: Nancy Scola, "The 'Big Data' President," *The Washington Post, June 14, 2013*
  - Watch "White Christmas," *The Black Mirror* (62 minutes)
- Discussion brief

Class 20 (Tuesday, November 10) BIG DATA AND THE SURVEILLANCE STATE

- Continue discussion of the surveillance state
- Assignments for next class
  - Listen: Carnegie Council for Ethics in International Affairs, "Data Threats: Hackers, Government Agencies, and Defending Data Online" (podcast—19 minutes)
  - Read Chapter 13 from *The Signal and the Noise*
Cybersecurity, Privacy and National Security

Class 21 (Thursday November 12)

- Discuss cybersecurity, privacy, and national security
- Assignment for next class
  - Complete initial draft of Reflection Paper #3

Class 22 (Tuesday, November 17)

- Workshop drafts of reflection papers
- Assignment for next class
  - Revise and resubmit final draft of Reflection Paper #3

Class 23 (Thursday, November 19)

- Workshop drafts of final projects
- Coordinate presentations of final projects

Class 24 (Tuesday, November 24)

- Workshop drafts of final projects
- Coordinate presentations of final projects

No class, November 26 (Thanksgiving break)

Part 3 Student-led Sessions

Class 25 (Tuesday, December 1)

Class 26 (Thursday, December 3)

Class 27 (Tuesday, December 8)

Class 28 (Thursday, December 10)

Our final evaluation period is scheduled for Thursday, December 17 from 2:00-3:50.