

# BEHIND THE DATA: HUMANS AND VALUES

Fall 2018

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<b>Instructors:</b>	Morgan Ames	<a href="mailto:morganya@berkeley.edu">morganya@berkeley.edu</a>	slack: @morganya
	Nathan Good	<a href="mailto:nathan@gooresearch.com">nathan@gooresearch.com</a>	slack: @ngood
	Deirdre Mulligan	<a href="mailto:dkm@ischool.berkeley.edu">dkm@ischool.berkeley.edu</a>	
<b>Class Times:</b>	Section W-231-1	Tuesday 4:00-5:30 PT	
	Section W-231-2	Tuesday 6:30-8:00 PT	

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## Course Pages:

1. Course Github: <https://github.com/UC-Berkeley-I-School/w231>
2. Course Website: <https://blogs.ischool.berkeley.edu/w231/>
3. Course Slack Channel: #w231-f18-announce
4. Course Signup sheets:
  - Introduction Survey: <https://goo.gl/forms/Yht3jSSFUxXT8hKq2>
  - Public Advocacy Blog Assignment Sign-Ups: <https://goo.gl/6uZY62>
  - Final Project Presentation Sign-Ups: <https://goo.gl/TP15Ga>

## Office Hours:

Dr. Ames: Tuesdays 3pm PT, after class, or by appointment in Zoom.

Dr. Good: TBA, after class, or by appointment in Zoom.

**Course Description:** This course provides an introduction to the legal, policy, and ethical implications of data. The course will examine legal, policy, and ethical issues that arise throughout the full life cycle of data science from collection, to storage, processing, analysis and use including, privacy, surveillance, security, classification, discrimination, decisional-autonomy, and duties to warn or act. Case studies will be used to explore these issues across various domains such as criminal justice, national security, health, marketing, politics, education, automotive, employment, athletics, and development. Attention will be paid to legal and policy constraints and considerations that attach to specific domains as well as particular data-types, collection methods, and institutions. Technical, legal, and market approaches to mitigating and managing discrete and compound sets of concerns will be introduced, and the strengths and benefits of competing and complementary approaches will be explored.

**Prerequisites:** Students must complete MIDS courses 201 and 203 before enrolling in this course.

**Academic Calendar:** <https://www.ischool.berkeley.edu/intranet/students/mids/calendar>

**Class Calendar:****SECTION I INTRODUCTION TO ETHICAL PRINCIPLES**

9/4/2018	Unit 1	Information Policy and Research Ethics: Foundations	(Ames/Good)
9/11/2018	Unit 2	Philosophy, Ethics, and Countercultures of Science	(Ames)
9/18/2018	Unit 3	Intent, Consent, and Research Design	(Ames/Good)

**SECTION II BIASES, RIGHTS OF INDIVIDUALS, AND NEW KNOWLEDGE**

9/25/2018	Unit 4	Principles of Privacy	(Mulligan)
10/2/2018	Unit 5	Data Subjects' Rights, Rights of Others, and Institutional Obligations and Duties	(Good)
10/9/2018	Unit 6	In-class Presentations of Privacy Policy Assignments	
10/16/2018	Unit 7	Why Do Categories Matter? Sociocultural Considerations	(Ames)
10/23/2018	Unit 8	Biases In Data and Algorithms	(Ames)
10/30/2018	No asynch	In-class Presentations of Group Legal/Ethical Analysis	
10/31/2018	DEAN'S LECTURE:	Jeff Jonas on GDPR: Big Data, Big Responsibility (4:10-5:30pm)	

**SECTION III MITIGATION AND MANAGEMENT**

11/6/2018	NO CLASS	- fall break/immersion	
11/13/2018	Unit 10	Deidentification, Mitigation, and Management Techniques	(Good/TBA)
11/20/2018	TBA	TBA	(Good/TBA)
11/27/2018	TBA	TBA	(Good/TBA)

**FINAL PRESENTATIONS**

12/4/2018	No Asynch	Final Project Presentations	
12/11/2018	No Asynch	Final Project Presentations	

**Assignment Deadlines:** All assignments are due by 11:59pm Pacific Time (PT) on the date noted. If you cannot make an assignment deadline, email us as soon as you know about the delay to make a plan for an alternate due date. Late assignments may be docked up to 5 points per day they are late.

**Assignment Formatting:** Name your assignment files as specified in the assignment description (usually `SectionTime_Lastname_Firstname`, with a few exceptions). Please convert docx and pptx files to pdf. Assignment descriptions will be added to the **Assignments** folder in the class git repository.

Due weekly*	(Sunday)	1-3 questions you have from the readings (*except presentation weeks)
Due 9/9	(Sunday)	Blog Post Sign-ups, Intro Survey (see links above)
Due 9/16	(Sunday)	Application of Belmont Principles
Due 10/7	(Sunday)	Privacy Policy Assignment (slides and document)
Due 10/14	(Sunday)	Final Project Outline
Due 10/21	(Sunday)	Peer Feedback on Outline
10/30	(Tuesday)	In-class Presentation of Group Legal/Ethical Analysis
Due 11/1	(Thursday)	Group Legal/Ethical Analysis Assignment (slides and document)
Due 11/27	(Sunday)	Final Project Presentation Sign-ups
12/4-11	(Tuesday)	In-class Presentation of Final Projects
Due 12/14	(Friday)	Final Project (slides and document)

**Course Evaluation:**

- Assignments (40%)
  - Application of Belmont Principles (8%)
  - Privacy Policy Assignment (8%)
  - Group Legal/Ethical Analysis (8%)
  - Peer Feedback Assignment (8%)
  - Public Advocacy Blog Post (8%)
- Participation (25%)
  - Synchronous session discussion (15%)
  - Weekly questions (10%)
- Final Project (35%)
  - Final project outline (5%)
  - Final project (30%)

**Class Policies:**

- Regular attendance and participation is essential and expected.
- This class relies on readings and asynch content. Complete both before the synchronous session each week. Both are necessary for participating in the synchronous session, and are important for the course. (However, the asynch exercises are for your own practice and are not graded.)

**Academic Integrity:** You are a member of an academic community at one of the worlds leading research universities. Any test, paper or report submitted by you and that bears your name is presumed to be your own original work that has not previously been submitted for credit in another course unless you obtain prior written approval to do so from your instructor. In all of your assignments, including your homework or drafts of papers, you may use words or ideas written by other individuals in publications, web sites, or other sources, but only with proper attribution. If you are not clear about the expectations for completing an assignment or taking a test or examination, be sure to seek clarification from your instructor or GSI beforehand. Finally, you should keep in mind that as a member of the campus community, you are expected to demonstrate integrity in all of your academic endeavors and will be evaluated on your own merits. The consequences of cheating and academic dishonesty which could include a formal discipline file, possible loss of future internship, scholarship, or employment opportunities, and denial of admission to graduate school are simply not worth it.

**Etiquette:**

- Limit pausing of camera
- Be courteous when others are speaking
- Be prepared and participate in break-out groups

## SECTION I INTRODUCTION TO ETHICAL PRINCIPLES

### 1 *Information Policy and Research Ethics: Foundations*

#### Weekly Readings and Asynch Unit 1

- [1] danah boyd danah and Kate Crawford. “Critical questions for big data”. In: *Information, Communication & Society* 15.5 (May 2012), pp. 662–679. DOI: [10.1080/1369118X.2012.678878](https://doi.org/10.1080/1369118X.2012.678878).
- [2] Rebecca Skloot. “The Immortal Life of Henrietta Lacks, the Sequel”. In: *The New York Times* (Mar. 2013). URL: <http://www.nytimes.com/2013/03/24/opinion/sunday/the-immortal-life-of-henrietta-lacks-the-sequel.html>.
- [3] The Commission. *Appendix, the Belmont Report: ethical principles and guidelines for the protection of human subjects in research*. The Commission, 1978.
- [4] Government. *Records, computers and the rights of citizens*. Government Printing Office, 1973. URL: <http://www.justice.gov/sites/default/files/opcl/docs/rec-com-rights.pdf>.
- [5] *Henrietta Lacks Foundation*. URL: <https://www.henriettalacksfoundation.org>.

### 2 *Philosophy, Ethics, and Countercultures of Science*

#### Weekly Readings and Asynch Unit 2

- [1] Sandra G. Harding. *Whose science? Whose knowledge?: Thinking from womens lives*. Cornell Univ. Press, 1991.
- [2] Nathan Jurgenson. *View From Nowhere*. Apr. 2017. URL: <http://thenewinquiry.com/essays/view-from-nowhere/>.
- [3] Kate Crawford. “Hidden Biases in Big Data”. In: *Harvard Business Review* (2013). URL: <https://hbr.org/2013/04/the-hidden-biases-in-big-data>.
- [4] Florangela Davila. “USDA disqualifies three Somalian markets from accepting federal food stamps”. In: *The Seattle Times* (Apr. 2002). URL: <http://community.seattletimes.nwsources.com/archive/?date=20020410&slug=somalis10m>.
- [5] Adam D. I. Kramer, Jamie E. Guillory, and Jeffrey T. Hancock. “Experimental evidence of massive-scale emotional contagion through social networks”. In: *Proceedings of the National Academy of Sciences* 111.24 (2014), pp. 8788–8790. DOI: [10.1073/pnas.1320040111](https://doi.org/10.1073/pnas.1320040111). eprint: <http://www.pnas.org/content/111/24/8788.full.pdf>. URL: <http://www.pnas.org/content/111/24/8788.abstract>.
- [6] Moritz Hardt. *How Big Data is Unfair*. Sept. 2014. URL: <https://medium.com/@mrtz/how-big-data-is-unfair-9aa544d739de>.

### 3 *Intent, Consent, and Research Design*

#### Weekly Readings and Asynch Unit 3

- [1] *OK Cupid: We Experiment on Human Beings*. URL: <http://blog.okcupid.com/index.php/we-experiment-on-human-beings/>.
- [2] *Ok Cupid Study Reveals Perils of Big Data Science*. URL: <https://www.wired.com/2016/05/okcupid-study-reveals-perils-big-data-science/>.
- [3] *Ok Cupid Users Data Release*. URL: <http://www.vox.com/2016/5/12/11666116/70000-okcupid-users-data-release>.
- [4] Mark A Rothstein and Abigail B Shoben. “Does consent bias research?” In: *American Journal of Bioethics* 13.4 (Apr. 2013). URL: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2244990](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2244990).
- [5] John Kropf. *Public information and privacy in a global society*. Bloomberg BNA, Mar. 2014. URL: [http://privacylaw.bna.com/pvrc/7057/split\\_display.adp?fedfid=43383440&vname=pvlnotallissues&wsn=499496500&searchid=22477163&doctypeid=6&type=oadata4news&mode=doc&split=0&scm=7057&pg=0](http://privacylaw.bna.com/pvrc/7057/split_display.adp?fedfid=43383440&vname=pvlnotallissues&wsn=499496500&searchid=22477163&doctypeid=6&type=oadata4news&mode=doc&split=0&scm=7057&pg=0).
- [6] Office of Civil Rights. *OCR HIPAA Privacy Research*. Vol. 512. Washington: Health and Human Services, Dec. 2003. URL: <https://www.hhs.gov/hipaa/for-professionals/special-topics/research/index.html>.
- [7] *In re Google Inc. Street View Electronic Communications Litigation: Radio Communications and Privacy by Convention*. June 2011.
- [8] David Kravets. “An intentional mistake: The anatomy of Google’s Wi-Fi sniffing debacle”. In: *Wired* (May 2012). URL: <https://www.wired.com/2012/05/google-wifi-fcc-investigation/>.
- [9] Iain Thomson. “Hello Barbie: Hang on, this Wi-Fi doll records your child’s voice?” In: *The Register* (Feb. 2015). URL: [http://www.theregister.co.uk/2015/02/19/hello\\_barbie/](http://www.theregister.co.uk/2015/02/19/hello_barbie/).
- [10] Office of Civil Rights. *45 CFR 164.514 - Other Requirements Relating to Uses and Disclosures of Protected Health Information*. Health and Human Services, 2010.
- [11] Office of the Federal Register. *Children’s Online Privacy Protection Rule: final rule: 16 CFR part 312*. Office of the Federal Register, 2013. URL: <https://www.law.cornell.edu/cfr/text/16/part-312>.

## SECTION II - BIASES, RIGHTS OF INDIVIDUALS, AND NEW KNOWLEDGE

### 4 *Principles of Privacy*

#### Weekly Readings and Asynch Units 4

- [1] A. Acquisti, L. Brandimarte, and G. Loewenstein. “Privacy and human behavior in the age of information”. In: *Science* 347.6221 (Jan. 2015), pp. 509–514. DOI: [10.1126/science.aaa1465](https://doi.org/10.1126/science.aaa1465).
- [2] Daniel J Solove. “Conceptualizing Privacy (NOTE: READ 1099 to 1123)”. In: *California Law Review* 90.4 (July 2002). DOI: <https://doi.org/10.15779/Z382H8Q>.
- [3] Daniel J Solove. “Taxonomy of privacy (NOTE: READ 479 to 483, 490 to 491)”. In: *University of Pennsylvania Law Review* 154.3 (Jan. 2006).

- [4] Helen Nissenbaum. “A Contextual Approach to Privacy Online”. In: *Daedalus* 140.4 (2011), pp. 32–48. DOI: [10.1162/daed\\_a\\_00113](https://doi.org/10.1162/daed_a_00113).
- [5] Deirdre K Mulligan, Colin Koopman, and Nick Doty. “Privacy is an essentially contested concept: a multi-dimensional analytic for mapping privacy”. In: *Phil. Trans. R. Soc. A* 374.2083 (2016), p. 20160118.
- [6] Alessandro Acquisti, Curtis R Taylor, and Liad Wagman. “The economics of privacy”. In: *Journal of Economic Literature* 52.2 (2016).

## 5 *Data Subjects’ Rights, Rights of Others, and Institutional Obligations and Duties*

### Weekly Readings and Asynch Units 5

- [1] State of California. *Chapter 22.1. Privacy rights for California minors in the digital world [22580-22582]*. 2014. URL: [http://leginfo.ca.gov/faces/codes\\_displaySection.xhtml?lawCode=BPC%EF%BF%BD%EF%BF%BD&ionNum=22581](http://leginfo.ca.gov/faces/codes_displaySection.xhtml?lawCode=BPC%EF%BF%BD%EF%BF%BD&ionNum=22581).
- [2] California Office of Privacy Protection. *Recommended practices on notice of security breach involving personal information January*. State of California Department of Justice, 2012.
- [3] *Data Portability FAQ*. URL: [http://ec.europa.eu/information\\_society/newsroom/image/document/2016-51/wp242\\_annex\\_en\\_40854.pdf](http://ec.europa.eu/information_society/newsroom/image/document/2016-51/wp242_annex_en_40854.pdf).
- [4] *Guidelines on the Right to Data Portability*. URL: [http://ec.europa.eu/information\\_society/newsroom/image/document/2016-51/wp242\\_en\\_40852.pdf](http://ec.europa.eu/information_society/newsroom/image/document/2016-51/wp242_en_40852.pdf).
- [5] *In re Facebook, Complaint, FTC File No. 092 3184*. 2012.
- [6] *In the Matter of ELI LILLY and COMPANY, a corporation*. 2002.

## 6 *Science of Privacy*

### Weekly readings and Asynch Unit 6

- [1] Ipsos MORI Follow. *Personalisation Versus Privacy*. Feb. 2014. URL: <https://www.slideshare.net/IpsosMORI/personalisation-versus-privacy>.
- [2] Bernardo A Huberman, Eytan Adar, and Leslie R Fine. “Valuating Privacy”. In: *IEEE Security & Privacy* (Oct. 2005), pp. 22–25. DOI: [10.1109/MSP.2005.137](https://doi.org/10.1109/MSP.2005.137).
- [3] Serge Egelman, Adrienne Porter Felt, and David Wagner. “Choice Architecture and Smartphone Privacy: There’s a Price for That”. In: *The Economics of Information Security and Privacy* (2013), pp. 211–236. DOI: [10.1007/978-3-642-39498-0\\_10](https://doi.org/10.1007/978-3-642-39498-0_10).
- [4] Janice Y. Tsai et al. “The Effect of Online Privacy Information on Purchasing Behavior: An Experimental Study”. In: *Information Systems Research* 22.2 (June 2011), pp. 254–268. DOI: [10.1287/isre.1090.0260](https://doi.org/10.1287/isre.1090.0260).
- [5] Sarah Spiekermann, Jens Grossklags, and Bettina Berendt. “E-privacy in 2nd generation E-commerce”. In: *Proceedings of the 3rd ACM conference on Electronic Commerce - EC 01* (Oct. 2001). DOI: [10.1145/501158.501163](https://doi.org/10.1145/501158.501163).
- [6] Ryan Calo and Alex Rosenblat. “The Taking Economy: Uber, Information, and Power”. In: (2017).

## 7 *What Do Categories Matter? Sociocultural Considerations*

### Weekly readings and Asynch Unit 7

- [1] Guy Stuart. “Databases, Felons, and Voting: Errors and Bias in the Florida Felons Exclusion List in the 2000 Presidential Elections”. In: *SSRN Electronic Journal* (2002). DOI: [10.2139/ssrn.336540](https://doi.org/10.2139/ssrn.336540).
- [2] Geoffrey C. Bowker and Susan Leigh Star. *Sorting things out: classification and its consequences*. MIT Press, 1999.
- [3] David I. Kertzer. *Census and identity: the politics of race, ethnicity, and language in national censuses*. Cambridge University Press, 2002.
- [4] Mona Chalabi. *Why We Don’t Know The Size Of The Transgender Population*. Mar. 2016. URL: <https://fivethirtyeight.com/features/why-we-dont-know-the-size-of-the-transgender-population/>.
- [5] Solon Barocas and Andrew D. Selbst. *Big Data’s Disparate Impact*. Aug. 2014. URL: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2477899](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2477899).

## 8 *Biases in Data and Algorithms*

### Weekly Readings and Asynch Unit 8

- [1] Tarleton Gillespie. “The Relevance of Algorithms”. In: *Media Technologies* (2014), pp. 167–194. DOI: [10.7551/mitpress/9780262525374.003.0009](https://doi.org/10.7551/mitpress/9780262525374.003.0009).
- [2] Felicitas Kraemer, Kees van Overveld, and Martin Peterson. “Is there an ethics of algorithms?” In: *Ethics and Information Technology* 13.3 (Sept. 2011), pp. 251–260.
- [3] Jenna Burrell. “How the machine thinks: Understanding opacity in machine learning algorithms”. In: *Big Data & Society* 3.1 (2016). DOI: [10.1177/2053951715622512](https://doi.org/10.1177/2053951715622512).
- [4] Tad Hirsch et al. “Designing Contestability: Interaction Design, Machine Learning, and Mental Health”. In: *Proceedings of the 2017 Conference on Designing Interactive Systems* (2017), pp. 95–99. DOI: [10.1145/3064663.3064703](https://doi.org/10.1145/3064663.3064703).
- [5] FTC. *Big Data: A Tool for Inclusion or Exclusion? Understanding the Issues (READ: executive summary and questions for legal compliance)*. URL: <https://www.ftc.gov/reports/big-data-tool-inclusion-or-exclusion-understanding-issues-ftc-report>.
- [6] Jonas Lehrman. “Big Data and Its Exclusions”. In: *Stanford Law Review* 66 (55 2013). DOI: [10.2139/ssrn.2293765](https://doi.org/10.2139/ssrn.2293765).
- [7] Cynthia Dwork and Deirdre K Mulligan. “It’s not privacy, and it’s not fair”. In: *Stanford Law Review* (Sept. 2013). URL: <https://www.stanfordlawreview.org/online/privacy-and-big-data-its-not-privacy-and-its-not-fair/>.

## 9 *In-Class Presentations of Group Legal/Ethical Analyses*

### SECTION III - MITIGATION AND MANAGEMENT



## 10 *Deidentification, Mitigation, and Management Techniques*

### Weekly Readings and Asynch Unit 10

- [1] The Leadership Conference on Civil and Human Rights. *Civil Rights Principles for the Era of Big Data*. 2014. URL: <http://archives.civilrights.org/press/2014/civil-rights-principles-big-data.html>.
- [2] Danielle Keats Citron. “Technical Due Process”. In: *Washington University Law Review* 85 (2007). URL: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1012360](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1012360).
- [3] Kate Crawford and Jason Schultz. “Big Data and Due Process: Toward a Framework to Redress Predictive Privacy Harms”. In: *Boston College Law Review* 55.93 (2014). URL: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2325784](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2325784).
- [4] Privacy Office. *Privacy Threshold Analysis (PTA)*. Privacy Office, 2014.
- [5] Privacy Office. *Privacy Impact Assessment*. Department of Homeland Security, 2014.
- [6] TSA and Robin Kane. *Privacy Impact Assessment Update for TSA Whole Body Imaging*. Department of Homeland Security, 2009.
- [7] Charles Raab and David Wright. “Surveillance: Extending the Limits of Privacy Impact Assessment”. In: *Privacy Impact Assessment* (Sept. 2012), pp. 363–383. DOI: [10.1007/978-94-007-2543-0\\_17](https://doi.org/10.1007/978-94-007-2543-0_17).

## 11 *Unit 11 Organizational: Professionals and Professional Associations*

### Weekly Readings and Asynch Unit 11

- [1] Fida Kamal Dankar and Khaled El Emam. “Practicing differential privacy in health care: A review”. In: *Trans. Data Privacy* 6.1 (2013), pp. 35–67.
- [2] Moritz Hardt. *Towards Practicing Differential Privacy*. URL: [https://github.com/mrtzh/mrtzh.github.io/blob/master/\\_posts/2015-03-13-practicing-differential-privacy.md](https://github.com/mrtzh/mrtzh.github.io/blob/master/_posts/2015-03-13-practicing-differential-privacy.md).
- [3] Alex Fowler. *Do Not Track: It’s the user’s voice that matters*. May 2012. URL: <https://blog.mozilla.org/netpolicy/2012/05/31/do-not-track-its-the-users-voice-that-matters/>.
- [4] *Tracking Preference Expression (DNT)*. URL: <https://www.w3.org/TR/tracking-dnt/>.
- [5] Allison Grande. “Do-Not-Track Group Finally Nails Down Tech Standard”. In: *Law360 - The Newswire for Business Lawyers* (2014). URL: <https://www.law360.com/articles/531445>.
- [6] Elon Musk. *A Most Peculiar Test Drive*. Feb. 2013. URL: <https://www.tesla.com/blog/most-peculiar-test-drive>.
- [7] Kashmir Hill. *The Big Privacy Takeaway From Tesla vs. The New York Times*. Feb. 2013. URL: <http://www.forbes.com/sites/kashmirhill/2013/02/19/the-big-privacy-takeaway-from-tesla-vs-the-new-york-times/>.
- [8] Tesla Motors. *Privacy Statement*. June 2013. URL: [https://www.tesla.com/sites/default/files/pdfs/tmi\\_privacy\\_statement\\_external\\_6-14-2013\\_v2.pdf](https://www.tesla.com/sites/default/files/pdfs/tmi_privacy_statement_external_6-14-2013_v2.pdf).



## 12 Unit 12 *Additional Legal Limitations for Data: Copyright, Contracts, and Database Rights*

### Weekly Readings and Asynch Unit 12

- [1] *Feist Pubs., Inc. v. Rural Tel. Svc. Co., Inc.* 499 U.S. 340 (1991). 1991.
- [2] *ProCD, INC. v. ZEIDENBERG*, 86 F.3d 1447 (7th. Cir. 1996). 1996.
- [3] *SKIM - Copyright Act 102(a)*, 106.
- [4] *Computer Fraud and Abuse Act*, 18 USC. URL: <https://www.law.cornell.edu/uscode/text/18/1030>.