

SOC 165

Prof. Akos Rona-Tas

Fall 2022

TTh 3:30p-4:50p

CSB 005

Office Hours: TTh 2:00-3:00 or by appointment on Zoom

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Predicting the Future: From Tarot Cards to Algorithms

A Sociological Introduction

We predict the future all the time. We brush teeth predicting fewer cavities, buy ice cream expecting to eat it, choose our spouse anticipating happiness. College students choose majors and take classes with an eye on their future career. Loan clerks, college admission officers, stockbrokers, and parole boards and other professionals make predictions for a living, betting on future outcomes. Most classes are about the *past* or the *present*. In this class, we look at ways people try to peek into the *future*.

For most classes there will be required *readings*, all are linked in the syllabus or you can access them through ERESERVES, except the only book you need to read: Yuval Harari's *Homo Deus* that you can buy on Amazon. It is a fun book but a long one, so start reading it well in advance of November 29, when we discuss it. Be prepared to discuss the readings in class.

There are also two *movies* you have to watch: *The Minority Report* (2002) by Steven Spielberg (2 hours and 26 minutes), and *Blade Runner* (1982) by Ridley Scott (1 hour 57 min, this is the original version not the sequel). You can stream both through e-reserves.

To access the articles off campus – either through the links or ERESERVES -- or the movies, you need to use a VPN. Here is the necessary info: <https://blink.ucsd.edu/technology/network/connections/off-campus/VPN/>

Finally, there is one *podcast* you must listen to, The Sorting Hat, an episode of Hidden Brain by Shankar Vedantam (51 min).

You must do the readings, the listening and watch the films **before** the date they appear on the syllabus. (Further readings or listenings are optional.)

I expect you to attend all classes and to *participate* actively. You can miss two classes without excuse (not the one where you debate). We will take attendance electronically.

You will have four simple *tasks* spread through the quarter:

Task 1. Make predictions (see list)

Task 2. Find your horoscope read it and bring it to class

Task 3. Retrieve your free credit bureau report

Task 4. Write a one-page summary of one main argument in Harari's *Homo Deus*. I want to see that you read the book. You will submit it through Turnitin via Canvas.

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You will participate in one of four *debates* with other students as a team. (In the other three debates you will be a member of the audience and will have lighter duties.) You can divide the work in your team as you see fit, but I expect every member to be equally involved. The members of the debating team must meet at least once either online or in person.

The two teams will debate the following propositions:

Debate 1. *Scientists should never be held criminally liable for predictions about the future.*

Debate 2. *We should measure individual intelligence and use it to make decisions about the future of people.*

Debate 3. *We should do predictive policing.*

Debate 4. *We should make important decisions always using algorithms rather than human judgment whenever that is possible.*

The rules of the debate will be as follows:

One team will argue for (Affirmative Team or AT), the other against the proposition (Negative Team or NT) but which team gets which side will be determined by a coin toss moments before the debate, so you and your team must prepare to argue both for and against. Your team will have to do your own research.

Round 1. The debate will start with the statement of the AT, followed by a statement by the NT, five minutes each. (10 min)

Round 2. The two teams rebut the other's points. (You take notes while the other team speak.) Starting with NT, the two teams take turns. Each will have three turns and each turn will be 2 minutes. (2x3x2=12 min)

Round 3. Questions from the audience and me to each team. (18 min)

Everyone except team members (i.e., the audience) *vote* on the proposition through Canvas *before* the class where the proposition is debated. At the end of the debate, the audience *vote again* on the proposition, using Canvas. What matters is minds changed. The winner is the side that swayed more people.

There are 4 debates. You will be audience for 3 of those. You will cast 6 votes, two for each debate where you are not arguing. Those votes are counted towards your participation score.

The whole debate (with transitions) will take out about 45 minutes of our 80 minute-long class.

You will have to sign up for a debate by **October 3**. There is a pre-debate meeting online with the Teaching Assistant. (Use the TA's Zoom link above.) The TA will be in touch a week ahead to schedule this meeting. Your participation in the pre-debate meeting gives you 4 of the 20 points. (Use the TA's Zoom link above.)

There is a midterm. You will be given 4 questions short essay questions based on the lectures and readings on **October 27, 9 am**. You choose **three** to answer. (If you answer all four, I will count the best three.) Each answer should be around 5-800 words. This is just a ballpark. It can be longer or shorter. We grade content not length. The midterm is due on **October 29, 11:59 pm**.

There is a final paper will be a longer essay that should be 3000 to 5000 words long. Again, this is a ballpark, and we grade on content.

You can choose **one** topic from the following four. Make sure you address all parts of the prompt but remember, you are writing an essay. So, it is not sufficient to just give a short answer to each part of the prompt. The questions are guideposts for your argument.

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1. Compare and contrast three different types of predictions (e.g., predicting earthquakes vs. the stock market vs. outcomes of sport events). Explain each type. What makes them different? Who are the ones making predictions and what exactly they want to predict? What can and what cannot they know? How are they making the predictions? Which type of prediction is more likely to succeed and why?
2. Explain self-fulfilling (SFP) and self-defeating prophecy (SDP). What would be good examples of each? How does each facilitate or hinder predictability? What would be a good example of a prophecy that is neither self-fulfilling nor self-defeating? Why do SFP and SDP end up with opposite results (fulfilling vs. defeating their predictions)? Give examples and explain the mechanisms through which they work. Use examples from the scholarly literature.
3. Explain path dependence in general and then apply it to the university. How is path dependence related to predictability? What are the mechanisms that create path dependence in general? What features of a university can be thought of as being path dependent? Explain and speculate about the mechanisms. What are the advantages and disadvantages of path dependence in this context?
4. Algorithms can predict the future, but they can also learn from incorrect predictions and can make new ones. Under what conditions does learning lead to better predictions? Can you think of examples when learning from the past may not improve our predictions of the future? If we consider not just how correct but also how useful our prediction is, there seems to be a contradiction between predicting the future and learning: predictions work because they make a claim now, when we need this prediction, and it must be correct now, when we have to act on it. So, changing the prediction later, when we are closer to the event may be irrelevant, even if those changes make the prediction better. Give an example when updating your prediction is not helpful. How does SFP and SDP relate to learning and updating?

The paper should present a clear and coherent argument supported by facts and relevant scholarly literature on the topic.

Here are six *common mistakes*:

1. You don't lay out the question clearly at the beginning and your answer clearly at the end. You need to convince your reader that your answer is a good answer, not just your opinion.
2. Answering the question, you do not entertain alternative explanations, just your own, and you don't anticipate skeptical inquiries. You need to convince your reader who doesn't yet agree with you.
3. You answer the question with examples. Examples are illustrations that support your argument. They are not the argument.
4. You do not use the scholarly literature in a meaningful way. That is, you don't engage with the content of the cited works, just drop them in the text to signal you read something. Remember finding good and relevant literature takes time. Sometimes Google Scholar hands you good items, sometimes you have to read articles or books and find what you need in their reference sections. Review articles are especially valuable in locating the articles or books you need.
5. You don't use an outline and the final paper is not organized in sections.
6. You did not revise your paper but sent me your very first full draft as your final draft. Once you have your first full draft, let it sit for at least a few hours. Then re-read it. You are welcome to use the Read Aloud feature in Word. Make corrections. Don't leave the paper to the last minute. Quick papers are bad papers.

The paper must start with an Abstract, which is a short summary of the main argument in your paper (about 150 words). You need at least 5 scholarly references (academic articles or books) listed at the end of the paper (called Reference section). Use the MLA format. You will submit final paper by **December 7, 9:59 pm** through Turnitin on Canvas. The paper must be entirely your own work. Plagiarism is a serious violation of university rules so is

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purchasing papers or getting someone to write your paper as a favor. *You must see me to discuss the paper at a scheduled appointment during the week of November 14-18.* Of course, you are welcome to see me at other times as well.

Your grade will be determined as follows:

Tasks (4 @4% each)	16%	(you get full credit for doing them on time)
Debate	20%	(you can get full credit even if your team loses) 4% of that is your participation in the pre-debate meeting
Midterm	20%	
Final paper	30%	
Class participation	14%	

Here I make a prediction: anyone who takes the course seriously, engages with the material actively and plays by the rules will get a B or better.

SCHEDULE

The Big Questions

September 22 Introduction: Ideas of the Future

Thinking about time
Travel in time
Four ways of thinking about the future
Historical overview

Required Reading:

Adam, Barbara, 2010, History of the future: Paradoxes and challenges, *Rethinking History, The Journal of Theory and Practice*, 14:3, 361-378 <https://www.tandfonline.com/doi/full/10.1080/13642529.2010.482790>

Further Reading:

Watts, Duncan J. 2011. *Everything is Obvious. Once You Know the Answer.* Crown Press. Chapters 5-7. (A very well-written introduction to sociology. The chapters are about prediction and trying to use social science to see the future.)
Jens Beckert, 2016. *Imagined Futures. Fictional Expectations and Capitalist Dynamics.* Princeton University Press (This book makes the case that the future is profoundly uncertain and therefore, we will have to think about it differently than we do about the past and present. Furthermore, this is what makes capitalism different and special.)

TASK 1: Make Predictions in Canvas.

- A). The value of Bitcoin at market close on November 30, 2022. Also write down the current value.
- B). The grade you will get in this class.
- C). In the November elections, will the Republicans gain control of the House only? The Senate only? Both? Neither?
- D). If the war of Russia on Ukraine will still be on by November 30, 2022.
- E). Make one more prediction that we can evaluate by November 30, 2022.

September 27 Time, Knowledge and Freedom

Past, present, future: Presentism vs. Eternalism
Speed of time
Why the future is different from the past and present

Required Reading:

Kristie Miller. 2013. Presentism, Eternalism and the Growing Block. In Heather Dyke and Adrian Bardon. *A Companion to the Philosophy of Time*. <https://onlinelibrary.wiley.com/doi/abs/10.1002/9781118522097.ch21>
Sam Woolfe. Presentism and Eternalism: Two Philosophical Theories About Time. <https://www.samwoolfe.com/2013/05/presentism-and-eternalism-two.html>

Further Reading:

Callender, Craig. 2001. *Introducing Time: A Graphic Guide*. Illustrated by Ralph Edney. Icon Books (This is a graphic novel that presents the thorniest philosophical issue about time in an astonishingly accessible form. If you ever wondered what „time“ is, this book is a must read.)

September 29 Time, Knowledge, and Freedom (continued)

Time travel
Can we imagine a world with change but without a future?
Illusion of hindsight

Further Reading:

Gleick, James. 2016. *Time Travel. A History*. London: 4th Estate (This is the best history of the idea of time travel wonderfully written by one of the best science writers.)
Taleb, Nassim, 2007. *The Black Swan: The Impact of the Highly Improbable*. New York: Random House (A classic, written before the financial meltdown and the onset of the Great Recession of 2008.)

Seeking Structures: The Curse (and Use) of Randomness

October 4 Randomness, Superstition, Control and Story Telling

What is randomness?
Cognitive control
Seeing patterns
Tarot cards, Tea Leaves, Astrology, Dreams
The use of randomness

Required Reading:

Whitson, Jennifer A. and Adam D. Galinsky. “Lacking Control Increases Illusory Pattern Perception.” *Science* 322, 115 (2008) (online version at <https://science.sciencemag.org/content/322/5898/115>)
Damisch, Lysann, Barbara Stoberock and Thomas Mussweiler. 2010. ”Keep Your Fingers Crossed!: How Superstition Improves Performance.” *Psychological Science*, 21(7) 1014 –1020 (online version at <https://journals.sagepub.com/doi/abs/10.1177/0956797610372631>)

Further Reading:

Here is a nice blog by Ed Yong explaining these issues to a wider audience:

<https://scienceblogs.com/notrocketscience/2008/12/27/lacking-control-drives-false-conclusions-conspiracy-theories>

TASK 2: Find your horoscope and bring it to class. Answer the questions on Canvas.

October 6 Prophets and prophecy

Tiresias in Homer's Odyssey

Augurs of Delphi

Religious prophets

When prophecy fails

Required Reading:

Schutz, Alfred. 1959. "Tiresias or Our Knowledge of the Future." *Social Research*, Vol. 26, No. 1 (SPRING 1959), pp. 71-89 <https://www.jstor.org/stable/pdf/40969340.pdf>

Dawson, Lorne L. 1999. When Prophecy Fails and Faith Persists: A Theoretical Overview. *Nova Religio: The Journal of Alternative and Emergent Religions*, Vol. 3, No. 1, pp. 60-82
<https://www.jstor.org/stable/pdf/10.1525/nr.1999.3.1.60.pdf>

Further reading:

Balch, Robert W. and David Taylor. 1977. Seekers and Saucers. The Role of the Cultic Milieu in Joining a UFO cult. *American Behavioral Scientist* <https://journals.sagepub.com/doi/pdf/10.1177/000276427702000604> (This is an ethnography of the cult Heaven's Gate that committed mass suicide in 1997 in Rancho Santa Fe.)

Predicting the Natural World: Same as It Ever Was?

October 11 Laws of Nature

Forecasting earthquakes

Scientists on trial

Weather forecasts

Foreseeing climate change

Required Reading:

Cartlidge, Edwin. 2011. "Quake Experts to Be Tried for Manslaughter." *Science* 332 (6034):1135–1136

<https://www.science.org/doi/full/10.1126/science.332.6034.1135?elq=6b5bb2f1d90e4280aca6e5fa6d997f2>

Daipha, Phaedra. 2012. "Weathering risk: Uncertainty, weather forecasting, and expertise." *Sociology Compass* 6.1: 15-25. <https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1751-9020.2011.00437.x>

Further reading:

International Commission on Earthquake Forecasting for Civil Protection. 2011. Operational Earthquake Forecasting. State of Knowledge and Guidelines for Utilization. *Annals of Geophysics*, 54, 4, pp. 319-391.

<https://www.annalsofgeophysics.eu/index.php/annals/article/viewFile/5350/5371> (Report by an international commission of experts on earthquake forecasting in response to the L'Aquila disaster.)

- Orrell, David. 2007. *The Future of Everything*. Thunder's Mouth Press (Orrell is a mathematician and worked on weather models. This easy-to-read book is about why mathematical prediction of the future is difficult if not impossible.)
- Nabhan, David. 2017. *Earthquake Prediction. Dawn of the New Seismology*. Skyhorse Publishing, New York. (A history of earthquake prediction.)

October 13 Medical predictions: Genes and Diseases

How doctors make prognoses
Are our genes our destiny

Required Reading:

- Cheon, Stephanie, et al. "The accuracy of clinicians' predictions of survival in advanced cancer: a review." *Ann Palliat Med* 5.1 (2016): 22-29.
https://web.archive.org/web/20190219074136id_/http://pdfs.semanticscholar.org/1708/3f2208c75099ad49a0b91d2bc2618162f87e.pdf

Further reading:

- Christakis, Nicholas A. 2001. *Death Foretold. Prophecy and Prognosis in Medical Care*. University of Chicago Press (One of the best books about how medical clinicians prognosticate.)
- Kondziolka, Douglas et al. 2014. The accuracy of predicting survival in individual patients with cancer. *Journal of Neurosurgery*, 120:24–30 <https://thejns.org/view/journals/j-neurosurg/120/1/article-p24.xml> (A scientific study of the accuracy of cancer diagnoses.)

Predicting the Social World

October 18 Imagining the World Many Years from Now

DEBATE 1

DEBATE 1: *Scientists should never be held criminally liable for predictions about the future.*

Imagining alternative worlds and traveling forward in time
Peeking into the future in the past

Film: Blade Runner

Required Reading:

- Davis, Lauren. How Our Predictions for the Year 2000 Changed Throughout the 20th Century.”
<https://io9.gizmodo.com/how-our-predictions-for-the-year-2000-changed-throughou-5908600>
- Estébanez Camarena, Mónica. "Predictions of Science Fiction That Came True." *Outer Space and Popular Culture*. Springer, Cham, 2020. 129-144. https://link.springer.com/content/pdf/10.1007/978-3-030-22656-5_12.pdf

Further Reading:

- Scherker, Amanda. 2014. "11 Visions of the Future That Were Utterly Wrong." *Huffington Post*, January 3
https://www.huffpost.com/entry/visions-of-the-future_n_4520597?ir=World (A fun list of things we were promised but have not yet got.)

- Kael, Pauline. 1982. Baby, the rain must fall. The visionary sci-fi movie "Blade Runner" has its own outlook, and place in film history. *New Yorker*, July 12. <https://www.newyorker.com/magazine/1982/07/12/baby-the-rain-must-fall> (A review of the movie Blade Runner by one of the greatest movie critics of all times.)
- Dick, Philip K. 1968. *Do Androids dream of electric sheep?* (The title Blade Runner was borrowed from a different book by Alan E. Nourse, but the plot and the characters were adopted from this novel by the Ridley Scott.)

October 20 Path Dependence: The Long Hand of History

When things don't change much and therefore quite predictable
Loops that lock things in place
The predictability of everyday life

Required Reading:

- David, Paul A. "Clio and the Economics of QWERTY." *The American Economic Review* 75.2 (1985): 332-337. JSTOR <http://www.jstor.org/stable/1805621>
- Arthur, W. Brian. 1990. "Positive Feedbacks in the Economy." *Scientific American*, February <https://www.jstor.org/stable/pdf/24996687.pdf>

Further Reading:

- Stan J. Liebowitz and Stephen E. Margolis. 1990. Fable of the Keys. *Journal of Law and Economics*, 33:1-25. <https://www.jstor.org/stable/pdf/725509.pdf> (This article tries to make the case, that David was wrong and QWERTY *is* the best keyboard.)
- Jacob Ward. 2022. *The Loop. How Technology Is Creating the World Without Choices and How To Fight Back*. Hachette, New York (This book argues that new technology by finding patterns in our thinking and behavior in the past and forcing those patterns on us in the future, narrows our freedom of choice and opportunities for happiness.)

October 25 Predicting Aggregate Behavior

Predicting the outcome of a large number of people's actions
Traffic
Demography
Economy (prophets and profits)
Elections

Required Reading:

- Congressional Budget Office. 2013. CBO's Economic Forecasting Record: 2013 Update. January 17. <https://www.cbo.gov/publication/43846>
- Homa, Ken. Nums: Why's the Fed so bad at forecasting? <https://homafiles.info/2013/06/24/nums-whys-the-fed-so-bad-at-forecasting/>

Further Reading:

- Tetlock, Philip. 2006. *Expert Political Judgment. How Good Is It? How Can We Know?* Princeton University Press (The best scientific study on why we should not listen to predictions by pundits and social scientists.)
- Pietruska, Jamie L. 2017. *Looking Forward. Prediction and Uncertainty in Modern America*. University of Chicago Press, Chicago (A history of how forecasting became part of everyday life in the US in the 20th century.)

October 27 **Sorting People: Personality and Intelligence Tests**

Stabilizing who you are
Sorting people by future potential

Required listening:

Sorting Hat. Hidden Brain Podcast by Shankar Vedantam.
<https://www.npr.org/templates/transcript/transcript.php?storyId=568418089>

Further reading:

Fourcade, Marion and Kieran Healy. 2013. Classification situations: Life-chances in the neoliberal era. *Accounting, Organizations and Society*, 38, pp. 559-572 (An excellent article about how classification matters in society, and why categorization is a form of power.)
Paul, Annie Murphy. 2010. *The cult of personality testing: How personality tests are leading us to miseducate our children, mismanage our companies, and misunderstand ourselves*. New York: Simon and Schuster. (Why personality tests everywhere, even though there is no evidence whatsoever, that they work.)

Midterm questions will be released by October 27, 9 am.
Midterm will be due by October 29, 11:59 pm through Canvas Turnitin

Predicting What You As An Individual Will Do

November 1 **Applying for Credit and Applying for College Admission**

DEBATE 2

DEBATE 2: *We should measure individual intelligence and use it to make decisions about the future of people.*

Guessing who will default and who will pay up
Estimating future academic performance

TASK 3. Retrieve your free credit record from one of the three credit agencies. Answer the questions on Canvas.

<https://www.annualcreditreport.com/index.action>

Required Reading:

Rona-Tas, Akos. 2017. "Off-label Use of Consumer Credit Ratings", *Historical Social Research*
<https://www.jstor.org/stable/pdf/44176024.pdf>

November 3 **Predicting Future Crime**

Preventing crime: policing, sentencing and parole

Film Minority Report

Required Reading:

Brayne, Sarah, and Angèle Christin. "Technologies of crime prediction: The reception of algorithms in policing and criminal courts." *Social Problems* 68.3 (2021): 608-624.

https://academic.oup.com/socpro/article-pdf/68/3/608/39586379/spaa004.pdf?casa_token=cg0a9Ef3a6EAAAAA:jl35_n8B3BJ760VCjKyl9aSlWq4YreMtSA6uqGJZYba4rm0--UIDFMdICE2ZAQ7Vwb7-Suw0WN2ITKM

ProPublica. Machine Bias. <https://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing>

Further readings:

Harcourt, Bernard E. 2007. *Against Prediction. Profiling, Policing and Punishing in an Actuarial Age*. University of Chicago Press (A classic piece on why profiling is dangerous.)

Ferguson, Andrew Guthrie. 2017. *Rise of Big Data Policing, The*. New York University Press (A critical history of big data policing.)

Dick, Philip K. 1956. *The Minority Report*. (The book on which the movie was based. Notice the date when the book was published.)

DURING THE WEEK OF November 14-18, YOU HAVE TO SIGN UP FOR A MEETING WITH ME TO DISCUSS YOUR FINAL PAPER

Sociology of the Future: Futurology and Futures Studies

November 8 Expert Predictions

DEBATE 3

DEBATE 3: *We should do predictive policing.*

How good are experts at predicting in their area expertise?

Expert judgment vs. statistical calculation

Heuristics vs. algorithms

Required Readings:

Dawes, Robyn M., David Faust, and Paul E. Meehl. 1989, "Clinical versus actuarial judgment." *Science* 243.4899 : 1668-1674.

http://psychoserver.psych.arizona.edu/JJBAReprints/PSYC621/Dawes_Faust_Meehl_Clinical_vs_actuarial_assessments_1989.pdf

Further Reading:

Tetlock, Philip and Dan Gardener. 2015. *Superforecasting. The Art and Science of Prediction*. Crown Publisher (After his first book showing how bad experts are predicting, Tetlock set out to figure out how our capacity to predict can be improved.)

Gigerenzer, Gerd. 2007. *Gut Feelings: The Intelligence of the Unconscious*. Viking (This is a book about why sometimes our intuition serves us better than deep thinking and calculation.)

November 10 Futurology and Planning for the Futures

The science of the future
Future vs. futures
The science of planning
Using scenarios

Required Reading:

Godet, Michel, and Fabrice Roubelat. "Creating the future: the use and misuse of scenarios." *Long range planning* 29.2 (1996): 164-171. <https://www.sciencedirect.com/science/article/pii/0024630196000040>
Liveley, G., Slocombe, W. and Spiers, E., 2021. Futures literacy through narrative. *Futures*, 125, p.102663. <https://www.sciencedirect.com/science/article/pii/S0016328720301531>

Further Reading:

Gidley, Jennifer M. *The future: A very short introduction*. Oxford University Press, 2017. (A very short history of futurology.)

Predicting the Future with Advanced Information Technology

November 15 The World of Big Data and the Rule of Algorithms

What are algorithms?
How predictable are humans?
Privacy and prediction
Does Google and Facebook know you better than you know yourself?

Required Reading:

Kerr, Ian and Jessica Earle. 2013. Prediction, Preemption and Presumption. How Big Data Threatens Big Picture Privacy. *Stanford Law Review*, September 3 <https://www.stanfordlawreview.org/online/privacy-and-big-data-prediction-preemption-presumption/>
Wang, Yilun and Michal Kosinski. 2017. Deep neural networks are more accurate than humans at detecting sexual orientation from facial image. *Journal of Personality and Social Psychology*. <https://osf.io/hv28a/download/?format=pdf>

Further listening:

The Privacy Paradox. Note to Self podcast <https://project.wnyc.org/privacy-paradox/>

Further Readings:

Kearns, Michael and Aaron Roth. 2020. *The Ethical Algorithm. The Science of Socially Aware Algorithm Design*. Oxford University Press, Oxford (Two computer scientists grapple with ethical issues in designing algorithms.)
Christian, Brian. 2020. *The Alignment Problem. Machine Learning and Human Values*. Norton, New York (Another very good book on keeping AI under human control and harnessing it to our benefit.)
Dormehl, Luke. 2014. *The Formula. How Algorithms Solve All Our Problems ... and Create More*. Penguin, New York (A journalist/technology writer explains how algorithms are deployed to affect our everyday lives.)
Domingos, Pedro. 2015. *The Master Algorithm. How the Quest for the Ultimate Learning Machine Will Remake Our World*. Basic Books, New York (Another computer scientist providing the history of machine learning and its future potential from an optimistic perspective.)

November 17 Algorithms as Social Forces

Algorithms taking our jobs?
Algorithms and political power
Do we have any comparative advantage?

Required Reading:

Makridakis, Spyros. "The forthcoming Artificial Intelligence (AI) revolution: Its impact on society and firms." *Futures* 90 (2017): 46-60. <https://www.sciencedirect.com/science/article/pii/S0016328717300046>

Further Reading:

Frey, Carl Benedikt, and Michael A. Osborne. "The future of employment: How susceptible are jobs to computerisation?." *Technological forecasting and social change* 114 (2017): 254-280
<https://www.sciencedirect.com/science/article/pii/S0040162516302244>

Pasquale, Frank. 2015. *The Black Box Society. The Secret Algorithms That Control Money and Information*. Harvard University Press, Cambridge MA. (A book that calls our attention to the problem of explainability and the moral and legal implications of the opacity of algorithms.)

Eubanks, Virginia. 2015. *Automating Inequality. How High-Tech Tools Profile, Police, and Punish the Poor*. St. Martin's Press, New York (A classic book about how technology is deployed to regulate those with the least power in society.)

The Brave New World of Big Data

November 22 Our Last Debate

DEBATE 4

DEBATE 4: *We should make important decisions always using algorithms rather than human judgment whenever that is possible.*

TASK 4: Hand in a one-page summary of one main argument in Harari's *Homo Deus*. I want to see that you read the book. You submit it through Turnitin via Canvas.

November 24 THANKSGIVING

No class

Homo Deus and Review

November 29 Harari's Homo Deus

Required Reading:

Harari, Yuval. 2017. *Homo Deus. A Brief History of Tomorrow*. Harper 464 pages

Further Reading:

Zuboff, Shoshana. 2019. *The Age of Surveillance Capitalism. The Fight for a Human Future at the New Frontier of Power*. Public Affairs, New York (A sprawling book about capitalism running on data.)

December 1 Predicting or Making It Happen? Review

Self-fulfilling prophecies

Self-negating prophecies

Required Reading:

Richard L. Henshel. 1982. "The Boundary of the Self-Fulfilling Prophecy and the Dilemma of Social Prediction." *The British Journal of Sociology*, Vol. 33, No. 4 (Dec. 1982), pp. 511-528
<https://www.jstor.org/stable/pdf/589359.pdf>

Further Reading:

Robert Merton. 1948. "The Self-Fulfilling Prophecy." *Antioch Review*, 82 <http://www.jstor.org/stable/40607393>
(This is the classic formulation of the problem by one of the great American sociologists.)