

I/Robot

Short course – late S1: begins Feb 22

Meets MWF 10-11:50 (webex opens at 9:55)

Professor Karla Erickson

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I like to think
(it has to be!)
Of a cybernetic ecology
where we are free of our labors
and joined back to nature,
returned to our mammal
brothers and sisters,
and all watched over
by machines of loving grace.

-Richard Brautigan
“All Watched Over by Machines of Loving Grace”

If the age of reason was, in part, a reaction to the existence of the printing press, and 1960s futurism was a reaction to the atomic bomb, we need a new philosophical and moral framework for living with the social web—a new Enlightenment for the information age, and one that will carry us back to shared reality and empiricism. . . We may not be able to predict the future, but we do know how it is made: through flashes of rare and genuine invention, sustained by people’s time and attention. Right now, too many people are allowing algorithms and tech giants to manipulate them, and reality is slipping from our grasp as a result.

Adrienne LaFrance 12.15.20 *The Atlantic*

Professor Erickson's Office hour sign-up:

https://docs.google.com/document/d/1e37usZxwwyv-366aHo-Z5p3gGdYu7Y_rUHBz7d_PTGs/edit?usp=sharing

If you can't make those times or they are filled up, please send me an email with 3 or more possible times in the coming week so we can find a time to meet. Thanks!

Class meeting space and office meeting space on Webex

<https://grinnellcollege.webex.com/meet/ericksok>

Goals of the Course

1. To help you condition your mind to apply your analytical abilities to tech devices and capacities
2. To provide you with one method for such a line of inquiry
3. To enliven your knowledge of tech and its effects through interdisciplinary humanistic inquiry
4. To prepare you to see the human in the machine
5. To practice passing through wonder to curiosity about machine life

I/Robot

What remains in an era of Artificial Intelligence? and, "How will/have our relationships to the machines changed our relationships to other humans? These are the central questions that will drive this interdisciplinary short course. Sponsored by the Center for the Humanities, students in I/Robot will learn about precursors to today's androids and artificial intelligence, study media depictions of machines and their relationship to humans, and choose one device/machine to study on their own. The course will make use of history, media studies, American studies, technology studies, philosophy and sociology. The course is participation-intensive, particularly for a short course. We will take up some big questions, we will have (I hope) fun doing so, but it will be a fair amount of work. All students are welcome.

Course Policies

*If you have a physical or learning disability that requires you to make some adaptations to this course, please contact me to discuss arrangements. All conversations will be confidential. For help with disability services, contact John Hirschman.

*In any papers written for this course, you must abide by the College's rules on plagiarism as outlined in the Student Handbook, which require you to "acknowledge explicitly any expressions, ideas, or observations that are not" your own. In addition, I expect that all formal papers will contain a footnote acknowledging any assistance of any kind you received in producing the paper (friends, parents, faculty). I recommend making use of the talent and assistance of the professionals in the writing lab. If you do 'go to' the writing lab, remember to cite the person who assisted you.

Attendance and Deadlines

This course requires a high level of student interaction, participation and involvement. I expect you to come (virtually) to class on time, prepared and ready to discuss (8:15!). I expect you to have read before class and preferably written a bit, or recording yourself talking about the readings, or done some poking around related to the readings, or talked with a friend or classmate. Sometimes this won't be possible, but it would be ideal. If you can, I prefer that you have a dedicated notebook for this course so you can jot down ideas as you read and while we are together on screen. In general, I expect your written work to be in on time. However, we are living in a pandemic, so if you know you cannot make a deadline or something is impacting your ability to complete an assignment, please contact me in advance of the deadline to arrange an extension.

Contacting Me

I expect to stay in contact with students throughout the term. I can be reached by email daily, however, I typically do not reply to emails after 5pm or on the weekend, so please address any questions you have to me during working hours or ask a classmate. I welcome time to talk with you one-on-one. I will be holding office hours by appointment - check the sign-up document. If those times don't work, please send me an email with 3 or more possible times for us to virtually meet.

Course Materials

The College owns access to the following resources, the rest of the readings are either hyperlinked in the syllabus or their access location is noted (i.e. pweb documents or ereserves). I always double and triple check links but sometimes something fails so please plan to check that you can access readings midday so you don't have to scramble to find readings late in the night with less help! Thanks.

READING SCHEDULE (Subject to Change)

*If I reading is listed on a date, you should read it in advance of the date, please. If I have assigned many pages, I'll often give notes on what to read more deeply and what to just be familiar with. In most instances, I expect you to have read the assigned readings. Having stated that general expectation, we are, after all, learning in a pandemic set within white supremacy, so sometimes it just won't pan out for you to have read all of them. Just come to class anyway, please. We would like to see you.

M 22 Where are we? The SLASH: /
Getting to know who is in the room

- Jones, and Okun. 2001. [White Supremacy Culture](#) (this one is about HOW we do our class and will inform how we think about machine/human relations) Attached to first email/at the link above
- Markoff, John. 2015. *Machines of Loving Grace*. Harper Collins. Chapter 1: Between Human and Machine pages 1-18 Attached to first email/pweb documents
- Rushkoff, Douglas. 2019. *Team Human*. W.W. Norton. Chapter 2: Social Animals, pages 9-23 Attached to first email/ereserves

W 24 History: How did we get here?

- Ford, Martin. 2015. [Rise of the Robots: Technology and the Threat of a Jobless Future](#). Basic Books. Chapter 3: Information Technology: An Unprecedented Force for Disruption pages 63-87
- Markoff, John. 2015. *Machines of Loving Grace*. Harper Collins. Chapter 3 A Tough Year for the Human Race pages 65-94. ereserves
- Brynjolfsson, Erik and Andrew McAfee. *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*. W.W. Norton. Chapter 4: The Digitalization of Just about Everything, pages 57-70 ereserves

F 26 Theory: Looking inside the machine

- Broussard, Meredith. 2018. [Artificial Unintelligence: How Computers Misunderstand the World](#). The MIT Press. Chapter 7: Machine Learning: The DL on ML pages 87-120
- Husain, Amir. 2017. *The Sentient Machine: The Coming Age of Artificial Intelligence*. Scribner. Part One: What is AI? Pages 9-48 ereserves
- Release of Duplex to Google audience. [Watch here](#).
- Nana Okamoto '20. [Introducing Pepper](#).
- The Go! Contest. [Watch here](#).

M 1 Technique: Investigating the Social Life of Machines

- Turkle, Sherry. [The Inner History of Devices](#). 2008. The MIT Press.
 - Cell Phones, E. Cabell Hankinson Gathman, pages 41-48 (use link above)
 - Computer Games, Marsha H. Levy-Warren, pages 72-85 (use link above)
 - Internal Cardiac Defibrillator, Anne Pollock, pages 98-111 (use link above)
- Shulevitz, Judith. 2018. Is Alexa Dangerous? The Atlantic. Pweb documents
- Aibo – 2018 Pre-release reveal. [2019](#) Commercial.
- Alexa – [2016](#) Commercial.
- Span, Paula. 2020. In isolating times, can robopets provide comfort? NYT. Pweb documents.
- Erickson and Rueda. 2020. [Self-Tracking your new year's resolutions](#). Scientific American. Or pweb documents.
- Erickson, Karla. 2019. [Don't be Fooled by charismatic robots](#). Salon. Or pweb documents.

W 3 Surveillance: Being seen, Being known, Being served, Being nurtured

- Zuboff, Shoshanna. 2019. [The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power](#). Hachette Book Club. Chapter 1: Home or Exile in the Digital Future pages 3-26.
- Benjamin, Ruha. 2019. [Captivating Technology: Race, Carceral Technoscience, and Liberatory Imagination in Everyday Life](#). Duke University. Chapter 6: Racialized Surveillance in the Digital Service Economy, Winifred R. Poster, pages 133-169
- Hill, Kashmir. 2012. How Target Figured Out a Teen Was Pregnant Before Her Father Did. Pweb documents.

F 5 I/Robot: The Ethics of Machine/human interactions

- Lin, Patrick, Keith Abney and George A. Bekey. 2012. [Robot Ethics](#). MIT Press. Chapter 12 Robots and Privacy, M. Ryan Calo, pages 169-186
- [Paro](#)
- [Loretta](#)
- Lodge, Jess. 2018. Paro the robot provides unconditional love. ABC News. Pweb documents.
- Renstrum, Joelle. 2020. The Sinister Realities of the Super Bowl Commercial. Pweb documents.
- [Erica](#)

- [Sophia](#) (first robot to receive citizenship)

M 8 Race as Technology: Reinforcing Inequality

MEMO DUE 2 most important questions – raised and answered - about either Alexa or Paro due

- Benjamin, Ruha. 2019. [Captivating Technology: Race, Carceral Technoscience, and Liberatory Imagination in Everyday Life](#). Duke University. Chapter 5 This is Not Minority Report: Predictive Policing and Population Racism R. Joshua Scannell pages 107-129
- [Predictive Policing, Bias and Facial Recognition](#).

W 10 Knowing Them

- Lin, Patrick, Keith Abney and George A. Bekey. 2012. [Robot Ethics](#). MIT Press.
 - Chapter 18 Designing People to Serve, Steve Petersen, pages 283-298 (use link above)
 - Chapter 19 Can Machines be People? Reflections on the Turing Triage Test, Rob Sparrow, pages 301-316 (use link above)
- Newton, Casey. 2020. [The Trauma Floor](#): The Secret Lives of Facebook Monitors. The Verge.

F 12 Knowing Us

- Turkle, Sherry. 2011. [Alone Together: Why We Expect More from Technology and Less from Each Other](#). Basic Books.
 - Chapter 8: Always On pages 151-170 (use link above)
 - Chapter 9 Growing Up Tethered pages 171-186 (use link above)
- Turkle, Sherry. 2015. Reclaiming Conversation: The Power of Talk in a Digital Age. Penguin Press. The Public Square 293-316 reserves
- Christakis, Nicholas. 2019. How AI will Rewire Us. The Atlantic. Pweb documents.

M 15 Student Presentations

W 17 Student Presentations

F 19 Revisiting the Slash: / Final Discussion and Last Day

- LaFrance, Adrienne. 2020. Facebook is a Doomsday Machine. The Atlantic. Pweb documents.
- [7 Amazing Technologies by 2030](#). Tech Insider.
- Post quiz and evaluations

M 22 Final Project and Director's Memo due by 5pm

Assignments

Basic Sketch of Assignments: Participation 30%, Contributing Questions 15%, Alexa/Paro Memo 20%, Final Project with “Curator’s Memo” 35%

Participation – 30%

This is a fast-paced short course meant to allow you to DIVE into a cultural study of machines. This is a humanistic inquiry into human/machine relations. We are going to read, listen, watch many sources, roll up our sleeves and find out what each other thinks. I love to teach at the edge of my own knowing – and the materials we are investigating are, by virtue of their newness as phenomenon, at the edge of all of our knowing! I encourage you to bring to bear your knowledge and insights from the fields you have studied, and your own lived experiences to inform our discussions. I ask that you come to the work with curiosity and a sense of welcome to one another, creating our conversation as a collaboration, a share inquiry. Participating in that is our primary undertaking, which is why the assignments are few.

Asking Questions – 15%

Please submit **2 questions** on the readings to me by 5 pm **3 times** during the short term. This will help me track your own thinking and curiosity. I don't accept late questions.

Alexa/Paro Memo – 20%

Due Monday, March 8 by email by end of day (whatever time that is for you).

Out of the questions we have been asking about new technologies, pick two that you think are most important for analyzing either Paro or Alexa. In a two-page, double-spaced memo, raise and answer those questions, relying on course materials and any additional research you undertake (not required). Submit the up-to-2-page double spaced memo by the end of the day on March 8.

Final Project – 35%

Due Monday, March 22 by 5pm CST – be sure to email Erickson the link or project and the memo by 5pm that day.

Steps along the way: learn about our archive, practice the analytical themes, select your object of choice, conduct original research, decide on presentation format, work with Maddie if you are contributing to the archive, practice your approach with classmates on “draft” day, hand in the final version plus your “Director’s memo” by 5pm CST on Monday, March 22.

Each of you will select a machine/technology to study and will create an “entry” in the Grinnell College I/Robot: A Visual Archive of Machine Life. Maddie Matsubura will be our Vivero fellow to help us with the technicalities of sharing your final work. The final project will require you to do original research on the “birth year”, design decisions, and functions of the machine and its social/cultural implications of the device. You will use the technique we have been practicing to communicate to an intelligent lay audience about a device of your choosing. What is most crucial for getting to know this machine? Once you get to know the machine, you'll be able to sort through the 5 themes and related questions that we have worked with to look for precursors, effects on skills, on relationships, time consequences, and so on of the machine and report on those that seem most salient. We will talk about the project early on and Maddie will hold office hours to help with the form for presenting your final version. Students are welcome to propose alternative formats – for example, video, original art, or coding project. I am using the archive as a starting point to think about how to share what we know and are curious about in a final project. Whatever shape that final presentation of what you know takes, you'll write a short “Director’s Memo” which explains to me why you made the choices you did and includes your sources from your research. Both are due by email (attached or link to archive) by 5pm CST on March 22.

Books on Reserve

Just in case you need to have all the sources in one place, here are books for our course held online via Grinnell College Libraries.

Robotic Imaginary: <https://www-jstor-org.grinnell.idm.oclc.org/stable/10.5749/j.ctv62hh4x>

Alone Together: <https://ebookcentral-proquest-com.grinnell.idm.oclc.org/lib/grinnell-ebooks/detail.action?docID=684281>

Artificial Unintelligence: <https://ebookcentral-proquest-com.grinnell.idm.oclc.org/lib/grinnell-ebooks/detail.action?docID=5355856>

Rise of the Robots: <https://ebookcentral-proquest-com.grinnell.idm.oclc.org/lib/grinnell-ebooks/detail.action?docID=1948747>

The Age of Surveillance Capitalism: <https://ebookcentral-proquest-com.grinnell.idm.oclc.org/lib/grinnell-ebooks/detail.action?docID=5370222>

Captivating Technology: <https://doi-org.grinnell.idm.oclc.org/10.1215/9781478004493>

Robot Ethics (2012 version): <https://ebookcentral-proquest-com.grinnell.idm.oclc.org/lib/grinnell-ebooks/detail.action?docID=3339351>

Surrogate Humanity: <https://doi-org.grinnell.idm.oclc.org/10.1215/9781478004455>

The Inner History of Devices: <https://ebookcentral-proquest-com.grinnell.idm.oclc.org/lib/grinnell-ebooks/detail.action?docID=3338933>