# AMCULT 601.004 Critical A.I. Nakamura

Office hours: By appointment (<u>link to office hours</u>)



New applications like Open AI's text and image generators ChatGPT and Dall-E-2 have transformed the way that writing, art, and discourse are practiced and conceived as an uneasy partnership between the human and the artificial. Artificial Intelligence (AI) has rapidly become a site of record-breaking financial speculation and investment, coalescing collective anxieties and fears about increasing inequality and racist and sexist representations, virtual embodiment, and the increasingly blurry boundary between natural and artificial life. This class is an advanced introduction to the field of critical A.I. studies, tracing the history of A.I. through Turing Tests and chatbots to our contemporary moment.

### Week 1: Introduction to A.I.

In class: Schaul, Kevin. 2024. "Is This AI? See If You Can Spot the Technology in Your Everyday Life." *Washington Post*, April 2, 2024.

https://www.washingtonpost.com/technology/interactive/2024/what-is-ai/.

Thompson, Stuart A. 2024. "Test Yourself: Which Faces Were Made by A.I.?" *The New York Times*, January 19, 2024, sec. Technology.

https://www.nytimes.com/interactive/2024/01/19/technology/artificial-intelligence-image-generators-faces-quiz.html.

# Week 2 Labor Day: No class

# Week 3: Defining A.I.

"What is Artificial intelligence?" Zerilli, John, John Danaher, James Maclaurin, Colin Gavaghan, Alistair Knott, Joy Liddicoat, and Merel Noorman. 2021. *A Citizen's Guide to Artificial Intelligence*. The MIT Press. https://doi.org/10.7551/mitpress/12518.001.0001.

Ali, Syed Mustafa, Stephanie Dick, Sarah Dillon, Matthew L. Jones, Jonnie Penn, and Richard Staley. 2023. "Histories of Artificial Intelligence: A Genealogy of Power." *BJHS Themes* 8 (January):1–18. <a href="https://doi.org/10.1017/bjt.2023.15">https://doi.org/10.1017/bjt.2023.15</a>.

Pasquinelli, Matteo. <u>"How a Machine Learns and Fails: A Grammar of Error for Artificial</u> Intelligence." *Spheres* 5 (2019): 1–17.

Pasquinelli, Matteo. "The Self Organization of the Human Mind" in *The Eye of the Master: A Social History of Artificial Intelligence*, 205-236. New York: Verso, 2023

# Week 4: Eliza: Experimenting with A.I. and the Human Metaphor

Spend 15 minutes with the Eliza Emulator

Erickson, Karla. 2023. <u>"What a Precursor to ChatGPT Taught Us about AI — in 1966."</u> Salon, April 10, 2023, sec. Science & Health.

Bassett, Caroline. 2019. "The Computational Therapeutic: Exploring Weizenbaum's ELIZA as a History of the Present." *AI & SOCIETY* 34 (4): 803–12.

https://doi.org/10.1007/s00146-018-0825-9.

Weizenbaum, Joseph. 1966. "ELIZA—a Computer Program for the Study of Natural Language Communication between Man and Machine." *Commun. ACM* 9 (1): 36–45. https://doi.org/10.1145/365153.365168.

Law, Harry. 2023. "Bell Labs and the 'Neural' Network, 1986–1996." *BJHS Themes* 8 (January):143–54. <a href="https://doi.org/10.1017/bjt.2023.1">https://doi.org/10.1017/bjt.2023.1</a>.

Turkle, Sherry. 2007. "Authenticity in the Age of Digital Companions." *Interaction Studies* 8 (3): 501–17. <a href="https://doi.org/10.1075/is.8.3.11tur">https://doi.org/10.1075/is.8.3.11tur</a>.

# Week 5: The Material of A.I.: Labor, Environment, and Exploitation

Wiener, Norbert. 1950. "The First and the Second Industrial Revolution," *The Human Use of Human Beings; Cybernetics and Society*. Boston: Houghton Mifflin.

Penn, Jonnie. 2023. "Animo Nullius: On Al's Origin Story and a Data Colonial Doctrine of Discovery." *BJHS Themes* 8 (January):19–34. <a href="https://doi.org/10.1017/bjt.2023.14">https://doi.org/10.1017/bjt.2023.14</a>.

Williams, Adrienne, Milagros Miceli, and Timnit Gebru. 2022. "The Exploited Labor Behind Artificial Intelligence." *Noema*, October.

https://www.noemamag.com/the-exploited-labor-behind-artificial-intelligence.

Crawford, Kate. 2021. *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence*. New Haven: Yale University Press (especially Intro, "Earth," "Labor, "Data")

# Week 6: Machine Learning

Kirschenbaum, Matthew. 2023. "Prepare for the Textpocalypse." *The Atlantic*, March 8, 2023.

https://www.theatlantic.com/technology/archive/2023/03/ai-chatgpt-writing-language-models/673318/.

Suresh, Harini, and John Guttag. <u>"A Framework for Understanding Sources of Harm Throughout the Machine Learning Life Cycle."</u> In *Proceedings of Equity and Access in Algorithms, Mechanisms, and Optimization*, 1-9. New York: ACM, 2021

Amoore, Louise. 2020. *Cloud Ethics: Algorithms and the Attributes of Ourselves and Others*. Durham: Duke University Press. Ch 2, "Learning Machines"

Turing, A. M. 1950. "Computing Machinery and Intelligence." *Mind* 59: 433–60. https://doi.org/10.1093/mind/LIX.236.433.

Chun, Correlating Eugenics

### Week 7: A.I., Race, and Gender: Turing Tests and Other Experiments

Look at: <u>GenderShades</u> Spend time with: DALL-E

Gaboury, Jacob. "Queer Affects at the Origins of Computation." *JCMS: Journal of Cinema and Media Studies* 61, no. 4 (2022): 169–74.

Buolamwini, Joy, and Timnit Gebru. 2018. "Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification." In *Proceedings of the 1st Conference on Fairness, Accountability and Transparency*, 77–91. PMLR.

https://proceedings.mlr.press/v81/buolamwini18a.html.

The DISCO Network: "Blackness and A.I.", *Technoskepticism*, Stanford University Press, forthcoming 2025.

Chun, Wendy. 2021. *Discriminating Data: Correlation, Neighborhoods, and the New Politics of Recognition*. Cambridge: MIT Press. "Introduction"

Jones-Imhotep, Edward. 2020. "The Ghost Factories: Histories of Automata and Artificial Life." *History and Technology* 36 (1): 3–29.

https://doi.org/10.1080/07341512.2020.1757972.

Optional: O'Neil, Lorena. 2023. "These Women Tried to Warn Us About Al." *Rolling Stone* (blog). August 12, 2023.

https://www.rollingstone.com/culture/culture-features/women-warnings-ai-danger-risk-before-chatgpt-1234804367/.

Small, Zachary. 2023. "Black Artists Say A.I. Shows Bias, With Algorithms Erasing Their History." *The New York Times*, July 4, 2023, sec. Arts.

https://www.nytimes.com/2023/07/04/arts/design/black-artists-bias-ai.html.

### Week 8: Indigenous People's Day, no class

# Week 9: The Work of A.I.: Industry, Capitalism, Power Ask ChatGPT to do some of your work for you and report back

Marx, Karl. n.d. "The Labour Process and Alienation in Machinery and Science." In *Grundrisse*, 583–92.

Dyer-Witheford, Nick, Atle Mikkola Kjøsen, and James Steinhoff. 2019. *Inhuman Power: Artificial Intelligence and the Future of Capitalism*. Digital Barricades. London: Pluto Press.

Roberts, Sarah T. 2021. "Your Al Is a Human." In *Your Computer Is on Fire*, 51–70. Cambridge: MIT Press.

https://direct.mit.edu/books/edited-volume/5044/chapter/2983135/Your-Al-Is-a-Human.

# Week 10: Conversational Agents: Gender, Race, Autonomy Spend time with Harriet Tubman A.I. (Deepai.org)

Sweeney, Miriam, and Melissa Villa-Nicholas. 2022. "Digitizing the 'Ideal' Latina Information Worker." *American Quarterly* 74 (1): 145–67. https://ir.ua.edu/handle/123456789/7549.

Al Now. 2019. "Discriminating Systems: Gender, Race, and Power in Al - Report." *Al Now Institute* (blog). April 1, 2019.

https://ainowinstitute.org/publication/discriminating-systems-gender-race-and-power-in-ai-2.

Phan, Thao. "The Materiality of the Digital and the Gendered Voice of Siri." Transformations,no. 29 (2017): 23–33.

Lawrence, Halcyon "Siri Disciplines." *Your Computer is on Fire*, eds., Marie Hicks, Ben Peters, Kavita Philips and Tom Mullaney, 179-97. Cambridge: MIT Press, 2021.

\_\_\_\_\_. "Amazon Echo and the Aesthetics of Whiteness." Catalyst: Feminism, Theory, Technoscience 5, no. 1 (April 1, 2019): 1–38.

The DISCO Network: "Playing with Black Style," *Technoskepticism*, Stanford University Press, forthcoming 2025.

### Week 11: Automated Decision Making

Mbembe, Achille. 2021. "Futures of Life and Futures of Reason." *Public Culture* 33 (1 (93)): 11–33. https://doi.org/10.1215/08992363-8742136.

Eubanks, Virginia. 2018. *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor.* New York: St Martin's Press. (Ch 2 and Ch 4)

Molnar, Petra. 2024. "Recognizing Liars: A.I. Lie Detectors, Voice Printing, and Digital Incarceration," *The Walls Have Eyes: Surviving Migration in the Age of Artificial Intelligence*. New York: The New Press.

Stark, Luke. 2023. "Artificial Intelligence and the Conjectural Sciences." *BJHS Themes* 8 (January):35–49. <a href="https://doi.org/10.1017/bjt.2023.3">https://doi.org/10.1017/bjt.2023.3</a>.

#### Week 12: A.I. Methods and Voices

Goodlad, Lauren Data Worlds: An Introduction

Katz, Yarden. 2020. "What Is Artificial Whiteness?" *Artificial Whiteness: Politics and Ideology in Artificial Intelligence*. New York: Columbia University Press.

Longhi, Lucia. 2020. "An Interview with Elisa Giardina Papa." Berlin Art Link. February 11, 2020.

https://www.berlinartlink.com/2020/02/11/technologies-of-care-an-interview-with-elisa-giardina-papa/.

Singh, Ranjit, Rigoberto Lara Guzmán, and Patrick Davison. 2022. "Parables of Al in/from the Majority World." SSRN Scholarly Paper. Rochester, NY. <a href="https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=4258527">https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=4258527</a> <a href="https://doi.org/10.2139/ssrn.4258527">https://doi.org/10.2139/ssrn.4258527</a>.

### Week 13: Hallucinating A.I.: Experiments in Error

"The Madness of Algorithms," from Amoore, Louise. 2020. *Cloud Ethics: Algorithms and the Attributes of Ourselves and Others*. Durham: Duke University Press.

Weise, Karen, and Cade Metz. 2023. "When A.I. Chatbots Hallucinate." *The New York Times*, May 1, 2023, sec. Business.

https://www.nytimes.com/2023/05/01/business/ai-chatbots-hallucination.html.

Russell, Legacy. 2020. *Glitch Feminism*. New York; London: Verso. <a href="https://legacyrussell.com/GLITCHFEMINISM">https://legacyrussell.com/GLITCHFEMINISM</a>.

Coleman, Beth. 2023. Reality Was Whatever Happened. Octavia Butler Al and Other Possible Worlds. Berlin: K. Verlag.

https://k-verlag.org/books/beth-coleman-reality-was-whatever-happened/.

# Week 14: A.I., Affect, Disability, Ethics

Nagy, Jeff. "Autism and the Making of Emotion AI: Disability as Resource for Surveillance Capitalism." *New Media & Society*, July 15, 2022, 14614448221109550. https://doi.org/10.1177/14614448221109550.

Davis, Jenny L., Apryl Williams, and Michael W. Yang. "Algorithmic Reparation." *Big Data & Society*, December 2021, 1–12.

Semel, Beth. "Listening Like a Computer: Attentional Tensions and Mechanized Care in Psychiatric Digital Phenotyping." *Science, Technology, and Human Values* 47 (2): 266–90. https://doi.org/10.1177/01622439211026371.

Kang, Edward B. "On the Praxes and Politics of Al Speech Emotion Recognition." In 2023 ACM Conference on Fairness, Accountability, and Transparency, 455–66. Chicago IL USA: ACM, 2023.

Week 15: Seminar-chosen readings and Paper Workshopping

Week 16: Course Overview Seminar Papers due

### **Additional Sources for Readings:**

A.I. and Society (journal)

<u>Histories of Artificial Intelligence: Geneaologies of Power</u>

#### Recommended:

Schmuckli, Claudia. 2020. Beyond the Uncanny Valley: Being Human in the Age of Al. San Francisco, CA: Fine Arts Museums of San Francisco.

### Forthcoming publications:

Greenspan, Anna, 2024, "Machine Decision is not final: China and the History and Future of Artificial Intelligence"

Atanasoski, Neda and Nasim Parvin, eds.

Technocreep and the Politics of Things Not Seen. Durham, NC: Duke University Press.

Esp. Semel, Beth. "Resistant Resonances: Vocal Biomarkers, Transductive Labor, and the Politics of Things Not Heard," in

### Class policies

Work for the seminar includes reading approximately 100-300 pages per week, 7 400-600 word weekly reading responses posted to Canvas, one in-class presentation (15 minutes presentation plus 15-20 minutes discussion, and one paper.

Accommodations and Access: Please contact me to arrange these.

This course fulfills a course requirement for students enrolled (or planning to enroll) in <u>the Digital Studies Graduate Certificate Program.</u> While some background in digital technology and media theory is helpful, the course does not require any particular expertise.

### Grading

Assignments will not be graded down for lateness.

- 1. Scholarly paper: 10-12 page original paper on a topic related to our class, employing a majority of materials and examples taken from our syllabus and connected to your own disciplinary interests. Please do not submit a recycled or revised paper from another class. (10-12 pages) 50%.
- 2. One in-class presentation / class leader session of 15 minutes on a topic of your own research interest and another 15-20 minutes of class discussion led by you. A sign-up sheet will be distributed in the first week of classes. If needed, share extra reading and other materials prior to class through Google docs or email them to instructors for Canvas upload. 25%.
- 3. Class Participation + Reading Responses: including engaged commenting on your colleagues' reading responses. A good response should cite from two or more of the texts, analyze the citation in some detail, provide your own point of view on what you see as one of the reading's main points. These are due by 10pm the evening before our seminar. 25%.

In-class presentation and discussion (25%):

- Read the assigned text(s) for that week and choose the one(s) you will present on. Please coordinate with other presenters if there are any to avoid overlap. Share other materials of your choice that relate to the topic of the week in advance to class.
- Prepare a one-page handout as an aid to class discussion. This handout should list what you consider to be the three or four most interesting analytical points you want to discuss, and especially how they relate to the main assignments of the class. The handout should also offer two questions designed to provoke interesting, wide-ranging general class discussion. The questions should focus on the concepts, theories, and critical frames from the readings.
- Distribute this handout to all class members at the start of the seminar..
- You will receive a 5-minute warning. A timer will go off at the 15-minute mark, and you must stop talking then. Again, this is not intended to embarrass you. Rather, it is meant to prepare you for professional presentations, which are always time-limited. Speaking concisely and effectively is an important skill in any profession.
- At the end of the presentation, presenters will lead the class discussion. You should be prepared to pose discussion-worthy questions about the readings, call on your peers, and listen to contributions and facilitate productive conversation among class members.