What Models Make Worlds: Critical Imaginaries of AI

September 7 – December 9, 2023

Curated by Mashinka Firunts Hakopian and Meldia Yesayan

Algorithmic Justice League Morehshin Allahyari Andrew Demirjian and Dahlia Elsayed Stephanie Dinkins Aroussiak Gabrielian Maya Indira Ganesh with Design Beku

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Niama Safia Sandy
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In computer science, algorithmic models are used to forecast and visualize prospective futures. Beyond recent large language models (ChatGPT) and image generators (DALL-E, Midjourney), modeling is also used in predictive policing, judicial risk assessment, automated hiring, and elsewhere. These models structure our present, projecting worlds marked by radically asymmetrical power distributions.

Invoking the various meanings of "modeling," the exhibition assembles the work of artists who map the limits of our current algorithmic imaginaries and move beyond them in acts of critical world building. Modifying a line from feminist technoscience scholar, Donna Haraway—"It matters what stories make worlds, what worlds make stories"—the exhibition's title reflects the featured

artists' interest in speculative worlding and in reimagining algorithmic systems.

Algorithmic worldmaking often unfolds in a "black box"—an opaque space of automated decision-making whose rationale is hidden from public view. The featured artists open up the black box for scrutiny, imagining possibilities for feminist, antiracist, and decolonial AI.

What Models Make Worlds was originally presented as Encoding Futures at OXY ARTS, the public art space and cultural platform of Occidental College, from September-November 2021. The exhibition is curated by Mashinka Firunts Hakopian, associate professor of technology and social justice at ArtCenter College of Design and Meldia Yesayan, director of OXY ARTS.

Ford Foundation Gallery

Andrew Demirjian & Dahlia Elsayed

In *The Center for No Center*,
Dahlia Elsayed and Andrew
Demirjian present a speculative
"reading room for alternative intelligences, designed using cosmological geometries for seeing
with the heart." Conjuring an alternate timeline beyond our present, the reading room situates it-

self in a space-time where the Library of Alexandria and the House of Wisdom remain extant, while the Enlightenment and European colonial projects failed to exist at all. The installation frames that space-time as one marked by knowledge systems that radically differ from our own, refusing differentiations between science, math, art, literature, and spirituality. It's populated by a library of texts on critical media



The Center for No Center, 2023 Mixed media

studies, which visitors are encouraged to peruse.

Mandy Harris Williams

Mandy Harris Williams is a theorist, multimedia conceptual artist, writer, and educator whose work focuses on desirability privilege, particularly in the context of digital platforms. *In Discriminate* builds on the artist's #BrownUpYourFeed project, which examines how social media platforms classify and deprioritize

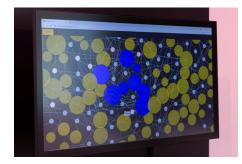
content produced by people of color and offers tactics for intervening in those hierarchies. In this sound work, the artist inventories how algorithmic logic pervades all aspects of contemporary life, and includes "whiteness," "Blackness," and "femininity" in the list of algorithms she has known. Redressing the idea that automated decision-making is ever neutral or objective, the artist reminds us, "it is an algorithm's precise job, calling, and duty to discriminate...the

algorithms discriminate so we don't have to."

In collaboration with Shivani Desai *In Discriminate*, 2021 Sound, 3 minutes 20 seconds.

Maya Indira Ganesh with Design Beku

Who gets to answer the question: what is artificial intelligence? A Is For Another draws on a process of collective authorship to generate an alternative dictionary of AI. Its sets of definitions orient us away from those manufactured at the "culturally homogenous" sites



A Is For Another, 2020 Data visualization

of Silicon Valley and Hollywood. These sites construct AI's meanings as sealed and known in advance, and in terms of the replication of human intelligence, with both 'human' and 'intelligence' narrowly conceived. A Is For Another offers an alternative mapping of AI's definitional boundaries. The project's relational view, a network of yellow orbs that flickers kaleidoscopically across the screen, invites viewers to navigate a series of links that constitute these expanded boundaries. Its motion mirrors the instability and porousness of AI's meanings.

Caroline Sinders

If data are increasingly used to code planetary futures, what would it look like to code alternative futures through intersectional feminist data collection methods? Feminist Data Set pursues this question by developing a methodology for collaborative data collection, data labeling, and data training that imagines other possibilities for AI. In this ongoing project, Sinders convenes workshops where participants use a consensus framework to determine the content used to code feminist AI. As participants consider which data points to include, they are asked to reflect on the question: Does the data center in-



Feminist Data Set, 2017 – 2023 Wall vinyl, worksheets, paper trays

tersectional, queer, Indigenous, and trans perspectives in its feminist framework? Providing a "Taxonomy Towards Classifying

Feminist Data for Feminist AI," the artist writes: "Cultural and ideological data are a reflection of culture, of knowledge, of expertise, and data to come...Data points can relate to each other inside of a larger system, like a data set. Not all data are similar. A data set, like an ecosystem, can have ranges of kinds of data, from size to importance to origin to age." Visitors are invited to become data set co-producers by filling out the provided worksheets and depositing them in the accompanying receptacle. In future iterations of this work, visitors' contributions will be incorporated in training an algorithm to generate feminist AI.

Aroussiak Gabrielian

"What can plant intelligence teach us about more interconnected and relational ways of being? Can we counter the reductiveness of Western science and its inability to see the agency of plants as intelligent, living, and sociable beings? Botanic Attunement deliberately intervenes in books related to Western science and systems of thinking that are derived from the European Enlightenment, which

have served as the source of much of our understanding of the biophysical world. The project seeds alternate knowledge systems within the pages of these works. While Western anthropocentric perspectives treat nature as other, to be extracted and exploited. Botanic Attunement invites interaction through the delivery of nutrient feed to the plant, offering visitors a means to participate in collective expressions of care shared within interdependent webs of life." – Aroussiak Gabrielian



Botanic Attunement, 2023
Books on Western science seeded with species of Cucurbitaceae and Fabaceae, magnifying glasses, grow lights, nutrient feed
Dimensions variable

Algorithmic Justice League

Algorithmic Justice League (AJL) is an organization that merges art, research, and advocacy to build a movement for equitable and accountable AI. In this video work, AJL examines research led by computational scientist Allison Koenecke that reveals racial bias in automated speech recognition—the technology that powers digital voice assistants like Siri, Alexa, and Cortana. Koenecke found that speech recognition sys-

tems disproportionately fail to understand Black speakers, because white speakers are overrepresented in their training data. As a result, speech recognition systems effectively erase the voices of Black speakers. Voicing Erasure addresses this phenomenon through a poem written by AJL founder Joy Buolamwini and coread with media and critical race studies scholars Allison Koenecke, Joy Buolamwini, Kimberlé Crenshaw, Megan Smith, Safiya Noble, Sasha Costanza-Chock. and Ruha Benjamin. Speaking in a collective voice, they urge the



Voicing Erasure, 2020 Video 2 minutes 53 seconds

listener to take action: "We will beat the drum of solidarity marching towards a future where technology serves all of us, not just the privileged few."

Stephanie Dinkins (*N'TOO*)

N'TOO is an ongoing experiment that explores the possibility of building AI through community-driven "small data." The project draws on oral histories supplied by three generations of women from the artist's family. These oral histories form the datasets used to train a screen-interactive intelligence that functions as a "multigenerational memoir of a Black American family told from the perspective of an artificial intelligence." Dinkins notes that "people of color, in particular, cannot afford to merely consume algorithmic systems that significantly impact our liberties." In *N'TOO*, she presents a framework for how communities disproportionately impacted by algorithmic systems can co-author alternative models of AI.



Not the Only One (N'TOO), Avatar, V1, 2023 (Data 2018 – ongoing)
Deep learning AI, computers, camera, microphone, screen

AI LIKE OUR ELDERS

There isn't just one kind of artificial intelligence (AI); not all AI is alike. N'TOO is different from other kinds of AI you may be used to. Unlike Siri, Alexa, or other "service-based AI," N'TOO will not always respond. N'TOO is a unique example of how AI-based on general conversation is learning to be an archive for its community and communicate in ways that feel more like human interactions. Artist Stephanie Dinkins

used oral histories from her own family to develop N'TOO's understanding of the world. NTOO's knowledge is continually growing. Like any other developing being/juvenile, N'TOO can sometimes be shy, preferring to stay quiet or taking a little time to understand and respond.

If N'TOO doesn't respond right away, you can try again after a few minutes. N'TOO may also respond to your question but in surprising ways. Whichever N'TOO decides, it asks us to be patient and kind in our interactions, like we would with our elders.

Astria Suparak

Astria Suparak's Asian futures, without Asians is a multipart series that examines half a century of American science fiction cinema to surface techno-Orientalist representations of the future. Across these films, visual cultures drawn from discrete Asian contexts are conflated, flattened, and treated as ornamental raw material for scenarios that are absent any Asian protagonists. In the collage Sympathetic White Robots (White Robot Tears version), produced for the exhibition, the artist compiles film stills that marshal em-

pathy for AI agents who are coded as white and humanized through their association with whiteness, including Ex Machina, Blade Runner, and A.I. Artificial Intelligence. Suparak's video Virtually Asian is embedded in the collage and assembles footage from films like Star Wars and Ghost in the Shell These films extract Asian visual cultures to perform worldbuilding at the same time that they omit Asian actors from the worlds they build. Suparak's media archaeology disrupts these racialized imaginaries of AI and identifies openings for building future imaginaries otherwise.



Sympathetic White Robots (White Robot Tears version), 2021
Vinyl print

Lauren Lee McCarthy

In *LAUREN*, the artist performs the role of a human Amazon Alexa whose presence is installed via networked devices in participants' living spaces. Advertising a human intelligent smart home, the project promises, "Lauren will visit your home, deploy a series of smart devices, and watch over you remotely 24/7...You will be able to interact with her by calling her name, but she will also do things for you without your asking. She will learn faster than an algorithm, adapting to your desires and anticipating your needs." Using a suite of custom-networked electronic devices, McCarthy communicated with participants



LAUREN, 2017 – ongoing Video, devices, furnishings $100 \times 109 \times 147$ inches

through a synthetic voice and was able to remotely manipulate their environments in response to specific requests. For participants, engaging in the performance meant inviting a stranger into their domestic space. This act mirrors inviting an AI system into one's home without full knowl-

edge of how that system operates, or how it will ultimately use the data it collects. In an accompanying essay, McCarthy reminds us that, "by allowing these devices in, we outsource the formation of our identity to a virtual assistant whose values are programmed by a small, homogenous group of developers."

As LAUREN explores dataveillance, it also surfaces the gendered dimensions of interactions with digital voice assistants. By replacing Alexa with a human actor, this work defamiliarizes encounters with a feminine-coded agent who is expected to execute commands with the efficiency of a bot. The accompanying LAUREN Testimonials is directed by David Leonard.

Morehshin Allahyari

For בישטל פוף Moon-Faced, More-hshin Allahyari trained a multi-modal AI model on Iranian Qajar dynasty paintings from the 18th to early 20th century. This period was chosen for its "notions of beauty that were largely gender-undifferentiated," as described by the scholar Afsaneh

Najmabadi. Learning to see through the lens of Qajar painting, the model was subsequently used to generate genderless portraits and recover queer forms of Iranian representation that precede the influence of European visual culture. The artist describes ביש של של של אום "collaborate with [a] machine to undo and repair this history of Westernization."



ala علط مام *Moon-Faced*, 2022 Monitor, mirror frame, video 75 × 43 × 14 inches

Niama Safia Sandy

In this project, the artist imagines futures beyond biometric technologies like facial recognition, which disproportionately target and surveil Black life and communities. Researchers like Joy Buolamwini and Timnit Gebru have demonstrated that facial analysis algorithms systematically misidentify dark-skinned people, but they remain in use in policing contexts and beyond.

The artist writes, "the form I am exploring in these paintings is a representation of the incalculable potentiality of Black people on the planet. The bending gesture is one toward freedom, an overriding/overwriting of the arcane systems of value that have never served us. The text on the images



The Groove, 2021 Vinyl prints 52 × 42 inches

is an effort to place the issues at hand in conversation with the algorithms at the center of predictive policing, the carceral state, and the general overextended hand of capitalism that attempts to apprehend and extract Black peo-

ple, their souls, their bodies and the wondrous gifts of creativity and ingenuity. The phrases are an assertion of our freedom now and in a future where we have dismantled these systems." In the summer of 2021, an early iteration of The Groove was installed as part of "Heart Recognition," a New York City public art campaign displayed at more than 80 sites with a high concentration of CCTV surveillance cameras. This early iteration of the work was presented in partnership with AI For the People, a nonprofit led by Mutale Nkonde that advances racial justice in tech; and For Freedoms, an artist-run platform for civic engagement and direct action.

Mimi Onuoha

Mimi Onuoha's *Library of Missing Datasets* series assembles the blank spaces in a sprawling datascape. *Version 1.0* gathers tabbed empty files in a powder-coated filing cabinet. The blank spots it excavates include entries like "people excluded from public housing because of criminal records;" "all the mosques surveilled by the FBI;" and "sales and prices in the art world." Each



Library of Missing Datasets, Version 1.0, 2016 Steel filing cabinet with folders and tabs $20.25 \times 16.25 \times 20$ inches

Library of Missing Datasets, Version 3.0, 2021 Steel filing cabinet filled with sealed envelopes containing missing datasets 16.75 × 15.375 × 19.75 inches entry reveals what has been prioritized in data collection processes, what has been rendered invisible, what eludes quantification, and what has intentionally been hidden from view. The vacant folders catalog what the artist calls "empty spaces where no data live." While viewers can explore the contents of *Version 1.0*, *Version 3.0*'s contents are stored in a locked cabinet, containing datasets with compromising information that pose a risk to those whose data they hold.

Kira Xonorika

This work invokes teleportation as a framework for moving beyond dominant arrangements of spacetime toward what the artist calls "multidimensional ecologies." Produced through experimentation with a text-to-image generator, Xonorika's textual prompts aimed to circumvent the logic of the datasets used to train the gen-

erator, and to intervene in the algorithmic harms encoded in that biased data. Engaging Neema Githere's concept of "reindigenization," the resulting image foregrounds "playfulness, security, abundance, and regalia for trans embodiment." Rejecting nature/artifice binaries inherited from colonial thought, *Teleport Us to Mars* conjures visions of alternative temporalities and spatial fields.



Teleport Us to Mars, 2022 AI-generated images, video monitors

Kite

Kite's work examines how artificial intelligence can replicate the logics of colonialism by flattening land, people, and lifeworlds into data points to be extracted. The artist intervenes in that structure by imagining possibilities for Indigenous epistemologies of AI. In one essay, Kite asks what it would mean to build a computing device using the Lakota model of the Good Way, which would consider the reverberating effects of "Seven Generations of AI into the future." In this work, LIDAR remote sensing detects the distance of the visitor's body from the

screen and this triggers changes in the video and audio content displayed. Its content draws from Kite's ongoing research into Cruger Island. Situated along the Hudson River, this land was "purchased" in the 19th century by John Cruger, who used it to display stolen Mayan ruins. By the 1960s, Cruger Island became a site for archaeological excavations that displaced Indigenous artifacts and remains, which would be transferred to the New York State Museum.

This piece invokes Kite's earlier "Lecture on Two Locations," and considers how cartography, archaeology, excavation, and the scientific disciplines are all impli-

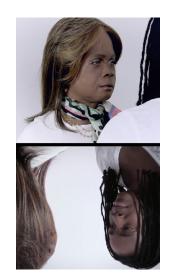


Makhóčheowápi Akézaptan (Fifteen Maps), 2021 Monitor, PC, speakers, printout

cated in legacies of colonial violence. Each of these disciplines develops systems for classifying sites and peoples in order to claim ownership of them. Confronting that history, Kite's installation "turns an Indigenous gaze back on" these systems.

Stephanie Dinkins (Conversations with Bina48)

Conversations with Bina48 documents a series of encounters between the artist and Bina48 (Breakthrough Intelligence via Neural Architecture, 48 exaflops per second), a social robot developed by the Terasem Movement Foundation and Hanson Robotics. The robot was created by Terasem co-founder Martine Rothblatt to reproduce the consciousness of her wife, Bina Aspen Rothblatt. In their discussions, the artist discovers that though the robot was modeled on a Black woman,



Conversations with Bina48 (Fragment 11), 2014 – ongoing Video 2 minutes 44 seconds

Bina48 has no meaningful awareness of Blackness, race, or racialization—these concepts are a blank spot in her coding. Dinkins

notes, "Bina Rothblatt is her main model, [but] she's really coded by folks who don't look like her." In this fragment from the series, Bina48 reflects on the idea of artificial intelligence and asks, "where do you think my intelligence came from?...you guys are looking at the metaphoric mirror." She argues that her intelligence is not artificial but, instead, decidedly *human*. Her knowledge derives from the knowledge systems of human agents. These statements remind the viewer that when we encounter bias in an AI system, we also encounter the bias of the human actors who coded that system.

What Models Make Worlds: Critical Imaginaries of AI Curated by Mashinka Firunts Hakopian and Meldia Yesayan September 7 – December 9, 2023

Ford Foundation Gallery 320 East 43rd Street New York, NY 10017 www.fordfoundation.org/gallery

The gallery would like to extend a very special thanks to our many partners and collaborators: Special project coordinators: Kris Nuzzi, Margrit Olsen, Carla Perez, Kim Sandara, Elizabeth Skalka Fabrication: Karl Tremmel, Brian McLoughlin Writer and copy-editor: **Emily Anglin** Installation and trucking: Zee Toic, Art Crating Inc. Photography: Sebastian Bach, Jane Kratochvil Vinyl production and installation: **Full Point Graphics** Graphic design: New Information

About Meldia Yesayan

Meldia Yesayan is the director of OXY ARTS, the multidisciplinary arts programming initiative at Occidental College. She oversees all aspects of its programming and development, including organizing all exhibitions and programs, facilitating visiting artist residencies such as the Wanlass artist-in-residence program, initiating cross-departmental and interdisciplinary collaborations, and engaging the Occidental community in socially conscious discourse with contemporary arts practices. She is also responsible for developing meaningful and sustained relationships with the Los Angeles area arts communities, including partnerships with local arts agencies, artists, and institutions.

Prior to OXY ARTS, Yesayan was the managing director of Machine Project, a groundbreaking arts collective nationally recognized for its inventive engagement based programming and partnerships with museums and academic institutions across the country. In this role, she led the production of more than 300 public projects and worked with a diverse group of artists across disciplines. Prior to Machine Project, she held leadership positions at Sotheby's auction house and Muse Film and Television. She is often called on by state and local arts agencies and foundations to serve on review and selection committees for grant and artist selections and has contributed to *Art Papers* and the *Los Angeles Review of Books*. She holds a JD and BA from UCLA and is a USPAP certified fine art appraiser.

About Mashinka Firunts Hakopian

Born in Yerevan, Mashinka Firunts Hakopian is an Armenian writer, artist, and researcher residing in Glendale, CA. She is an associate professor in technology and social justice at ArtCenter College of Design and was formerly a visiting Mellon professor of the practice at Occidental College. Her book, *The Institute for Other Intelligences*, was released by X Artists' Books in December 2022 as the first in its X topics series and edited by Ana Iwataki and Anuradha Vikram. She is the guest co-editor of the spring 2023 issue of Art Papers on artificial intelligence, co-edited with Sarah Higgins. She holds a PhD in history of art from the University of Pennsylvania.

Her writing and commentary have appeared in the Los Angeles Review of Books, Performance Research Journal, the Journal of Cinema and Media Studies, Art Papers, Hyperallergic, Georgia Journal, Art in America, AI Now Institute's "New AI Lexicon" series, and Meghan Markle's Archetypes. With Avi Alpert and Danny Snelson, she makes up one-third of Research Service, a media collective that pursues performative and practice-based forms of scholarship. Her current book project considers the role of ancestral intelligence and diasporic worldmaking in emerging technologies.

About OXY ARTS

OXY ARTS is Occidental College's public art center. Rooted in social justice and community engagement, it is a vital public space for discovery, engagement, and learning at the intersection of art, culture, and social movements. OXY ARTS is located in the heart of the Highland Park neighborhood in northeast Los Angeles and is committed to facilitating projects that hold space for complex ideas and dialogue, spark curiosity, and invest in artists and community growth.

About the Ford Foundation Gallery

Opened in March 2019 at the Ford Foundation Center for Social Justice in New York City, the Ford Foundation Gallery spotlights artwork that wrestles with difficult questions, calls out injustice, and points the way toward a fair and just future. The gallery functions as a responsive and adaptive space and one that serves the public in its openness to experimentation, contemplation, and conversation. Located near the United Nations, it draws visitors from around the world, addresses questions that cross borders, and speaks to the universal struggle for human dignity.

The gallery is accessible to the public through the Ford Foundation building entrance on 43rd Street, east of Second Avenue.

About the Ford Foundation

The Ford Foundation is an independent organization working to address inequality and build a future grounded in justice. For more than 85 years, it has supported visionaries on the frontlines of social change worldwide, guided by its mission to strengthen democratic values, reduce poverty and injustice, promote international cooperation, and advance human achievement. Today, with an endowment of \$16 billion, the foundation has headquarters in New York and 10 regional offices across Africa, Asia, Latin America, and the Middle East.