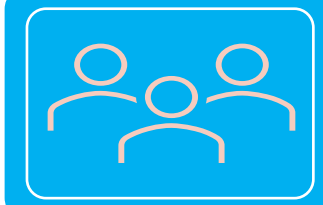
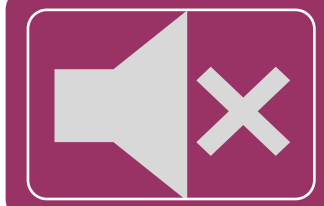
AI/ML 12.0 Symposium – Diversity, Equity, and Inclusion

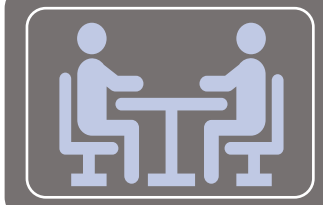


This Symposium is being recorded. By receiving this notification, your participation consents to recording and public release of the Symposium.



Please turn off your camera and mute your microphone unless you are presenting.

Use the chat feature to let us know if you have questions or if you have technical difficulties.



Questions will be addressed at the end of the symposium (time permitting).

The Symposium will begin at 11:00 AM MST

Welcome to the

Artificial Intelligence and Machine Learning Symposium 12.0

November 2, 2023

IDAHO NATIONAL LABORATORY

November 2, 2023

Curtis Smith
Director, Nuclear Safety and Regulatory Research

AI/ML 12.0 Symposium – Diversity, Equity, and Inclusion

Battelle Energy Alliance manages INL for the
U.S. Department of Energy's Office of Nuclear Energy

INL Idaho National Laboratory

Outline

- Three talks today
- Artificial Intelligence: Challenges and Responsibilities for privacy in the world – Miltos Alamaniotis, University of Texas at San Antonio
- Understanding Conscious and Unconscious bias in AI and Machine Learning – Thomas Conley, Idaho National Laboratory
- NIH's perspectives on Ethical and Equitable AI – Laura Biven and Samson Gebreab, National Institute of Health

The Recent Presidential Executive Order

- **Advancing Equity and Civil Rights**
  - Irresponsible uses of AI can lead to and deepen discrimination, bias, and other abuses in justice, healthcare, and housing.

- https://www.whitehouse.gov/briefing-room/statements-releases/2023/10/30/fact-sheet-president-biden-issues-executive-order-on-safe-secure-and-trustworthy-artificial-intelligence/

THE WHITE HOUSE

OCTOBER 30, 2023

FACT SHEET: President Biden Issues Executive Order on Safe, Secure, and Trustworthy Artificial Intelligence

BRIEFING ROOM › STATEMENTS AND RELEASES

Today, President Biden is issuing a landmark Executive Order to ensure that America leads the way in seizing the promise and managing the risks of artificial intelligence (AI). The Executive Order establishes new standards for AI safety and security, protects Americans' privacy, advances equity and civil rights, stands up for consumers and workers, promotes innovation and competition, advances American leadership around the world, and

Agenda

Time	Subject	Speaker
11:00 – 11:10	*Welcome, Introductions, and Agenda*	Curtis Smith, Idaho National Laboratory
11:10 – 11:40	*Artificial Intelligence: Challenges and Responsibilities for privacy in the world*	Miltos Alamaniotis, University of Texas at San Antonio
11:40 – 12:10	*Understanding Conscious and Unconscious bias in AI and Machine Learning*	Thomas Conley, Idaho National Laboratory
12:10 – 12:40	*NIH's perspectives on Ethical and Equitable AI*	Laura Biven and Samson Gebreab, National Institute of Health
12:40 –	*Q&A and Wrap-up*	Curtis Smith

“And I told him, AI and ML aren’t the thing. They’re the thing that gets us to the thing.”

(See Halt and Catch Fire)

Curtis.Smith@inl.gov

Thank you and enjoy the symposium!

Battelle Energy Alliance manages INL for the U.S. Department of Energy's Office of Nuclear Energy. INL is the nation's center for nuclear energy research and development, and also performs research in each of DOE's strategic goal areas: energy, national security, science and the environment.

Artificial Intelligence: Challenges and Responsibilities for Privacy in the world.

Miltiadis "Miltos" Alamaniotis
Associate Professor
GreenStar Endowed Fellow in Energy
Dept. of Electrical and Computer Engineering
University of Texas at San Antonio

INL – AI/ML Symposium

Outline

- AI Everywhere
- AI in Nuclear Engineering Applications
- Concerns for DEI
- Responsibilities for DEI
- Conclusion

AI in History

- **Talos**: The protector of the island of Crete, Greece
  - **The <u>first form of artificial intelligence</u> found in history was in the Greek mythology**

The need of people to live together with machines “non-human” figures that act like them
First proof of inclusion??

“Damage” to Artificial Intelligence

- HOLLYWOOD (movies)
  - Presented a Scary Aspect of AI
    - Terminator
    - Matrix
    - I Robot
    - Blade Runner
    - AI

Pessimistic Approaches

Approaches that were not supporting Equity, Inclusion and Diversity

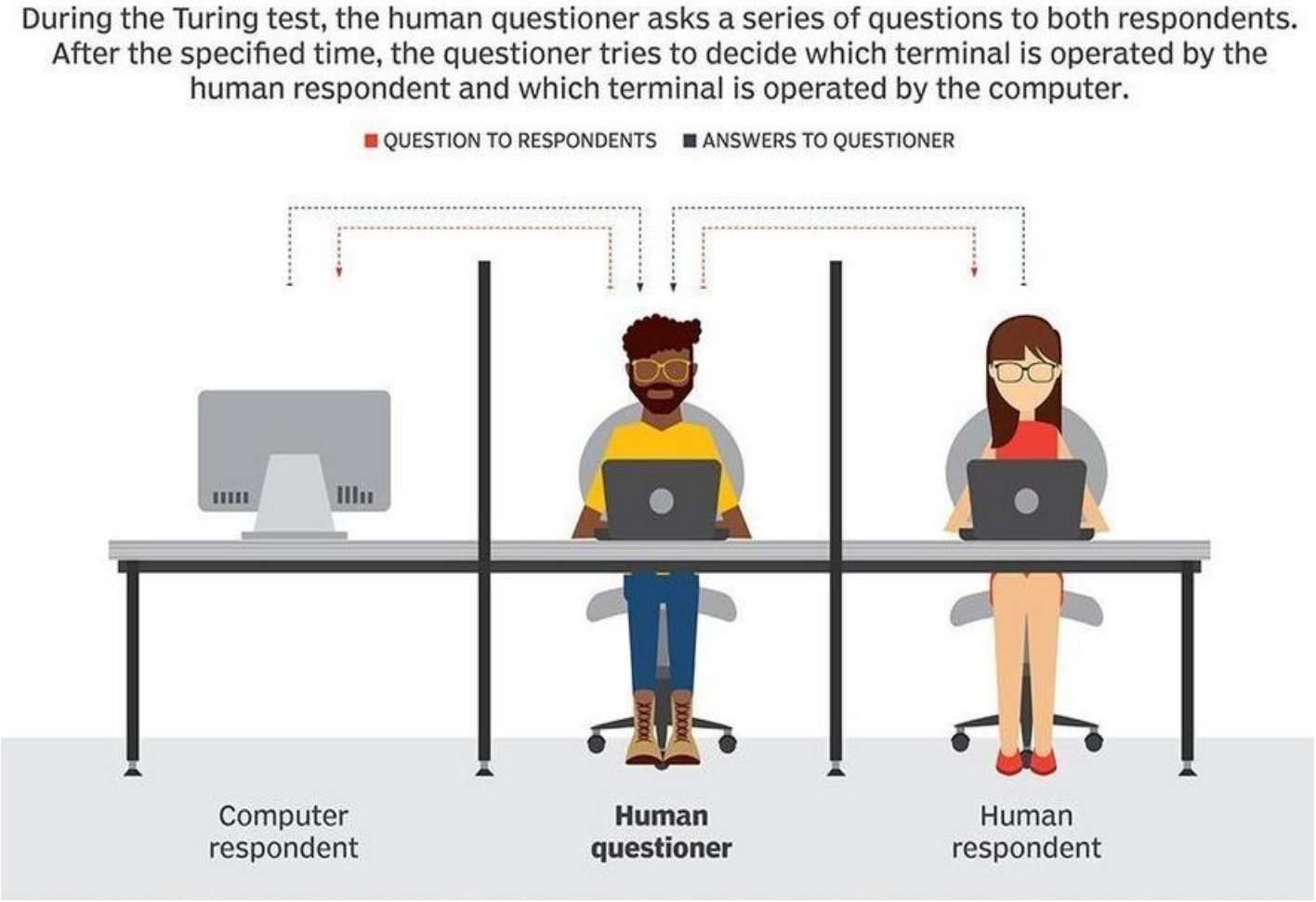
What is AI? (System approach)

- Systems that think like humans
- Systems that think rationally
- Systems that act like humans
- Systems that act rationally

Common Features met in humans

Systems = Human (abstract point of view)

Turing Test



NOTE:
If human questioner cannot identify the computer then the system has successfully passed the Turing Test

What can we “extract” from Turing Test?

- AI systems can contribute at Diversity, Equity and Inclusion
  - “Mask” the identity of people
  - AI may be the software representative
    - Anonymity that leads to Equity and enhanced Diversity
    - Virtual Communities where everybody can be anybody

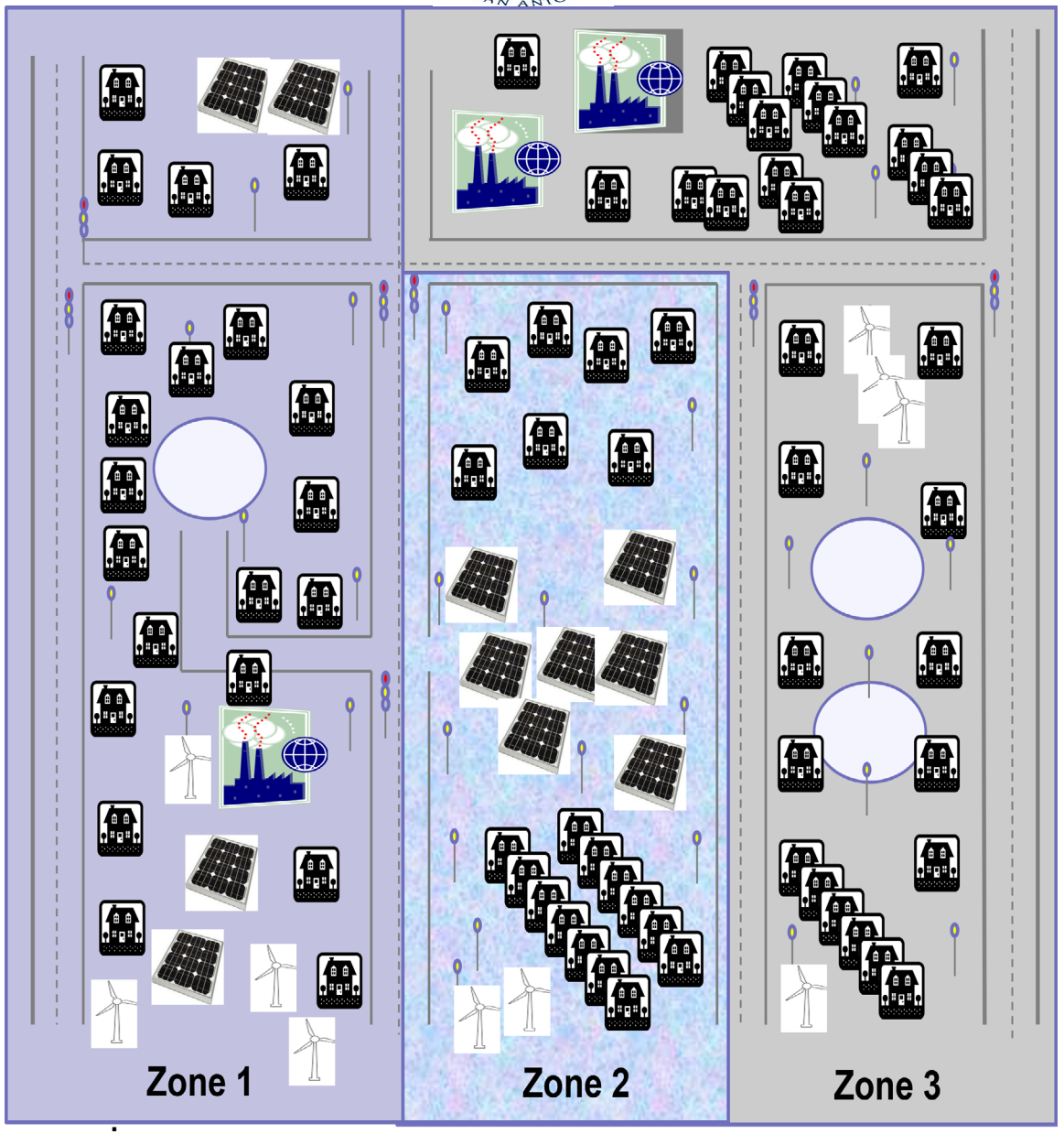
- In a fully digital and connected world, all are equal and have equal access to all opportunities
  - Independent of ID, races, or even their current location

What AI offers?

- Equal access to resources at any time
  - Together with digital connectivity
- Uniform Behavior
  - The same set of algorithms provide specific behavioral patterns
  - Behavioral patterns are independent of individual or group characteristics
- Interaction and form of diverse groups
  - E.g. Forming of groups over internet from people from all over the world
  - Virtual neighborhoods in smart cities

Smart City Example

- Partition based on electricity infrastructure
  - DEI is “there”.
    - No idea about individual characteristics
    - Moving of citizens to other residencies = no impact
  - Anonymity of residents
  - Electricity features mask individual characteristics



Vulnerability

- In a digital world Diversity, Equity and Inclusion may be seen as equivalent to privacy.
- If digital privacy is compromised, then the phenomena of discrimination may be observed.
- Let's see some examples

Smart Rad Sensors…Everywhere

Taxis

Cell Phones

Planes

AI and Nuclear Security

- **Wrong use** = Lethal Consequences
  - A single bug in code = severe impact
  - Privacy problem
- **Compromising AI Systems** = Lethal Consequences
- **Radiation Monitoring of Activities**
  - Identifying Medical Radioisotopes
    - Privacy issues
      - Data manipulation is easier compared to physical evidence

Responsibilities

- Each AI system should be well tested
  - Redundant systems
  - Failure risk as low as possible
- AI should secure Universal Behavior for any user
- Alert of Generative AI that will develop discrimination patterns
- Developed AI Codes should be developed in a way that do not make inferences about the user
- Equal access to AI systems from everybody

Social Impact

- False Detection of Radioactive Source
  - Wrong accusation
    - Intimidating for people (for instance, bananas)
- False Detection in Ports
  - Huge Financial Impact because of delays
  - Legal issues with companies
- High Cost Technologies for Governments

Present and Near Future

- Smart Rad Sensors in Smart Cities
- Autonomous
  - Data acquisition
  - Processing
- Enhanced Safety but Activity Monitoring
- ATTENTION: Activity monitoring might lead to inference making of the identity and behavior of people

Research: Bad or Good?

- AI has assisted in:
  - Improving quality of papers (especially writing)
  - Accommodating research from people with special needs
    - (e.g, disabilities can develop code and research papers with voice)
  - Significantly decreased the time needed to produce a paper
    - Beneficial for people with limited access to resources

- But also:
  - Generating text that does not express the author
  - Diminishes the learning aspect of research
    - People do not search for information / it pops up in their screen

End of Presentation

Thank you

Understanding Conscious and Unconscious Bias in Artificial Intelligence and Machine Learning

Battelle Energy Alliance manages INL for the
U.S. Department of Energy's Office of Nuclear Energy

Idaho National Laboratory

Understanding Conscious and Unconscious Bias in Artificial Intelligence and Machine Learning

All models are wrong, but some are useful.

-- George E. P. Box

There are no *bad programs*; only *bad computer programmers*.

- When I was a young hotshot computer programmer in the 1980's my programs were correct **100%** of the time.
- (That sounds like bragging, so let me re-phrase…)
- **If there were no bugs in my programs, they gave the correct answer, 100% of the time.**
- We used to say: *A program only does what you tell it to do!*
- *We don't say that anymore…*

We know that bias is *learned* from *input* data.

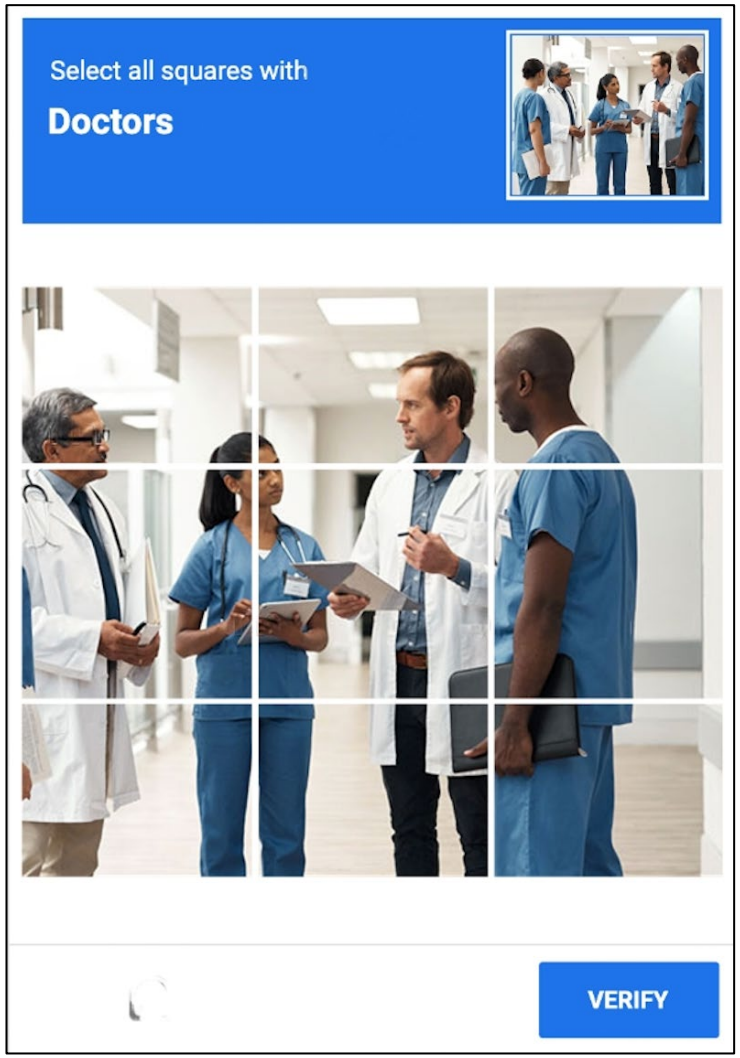
- We carefully select good wholesome shows that children can *learn* from.
- For example: a show from the 1960's: *The Andy Griffith Show*.
- Children learn good lessons:
  - They learn to respect others
  - They learn to get along with everyone
  - They learn there were no black people in North Carolina in the 1960's
  - They learn… wait, what?

We know that bias is *learned* from *input* data.

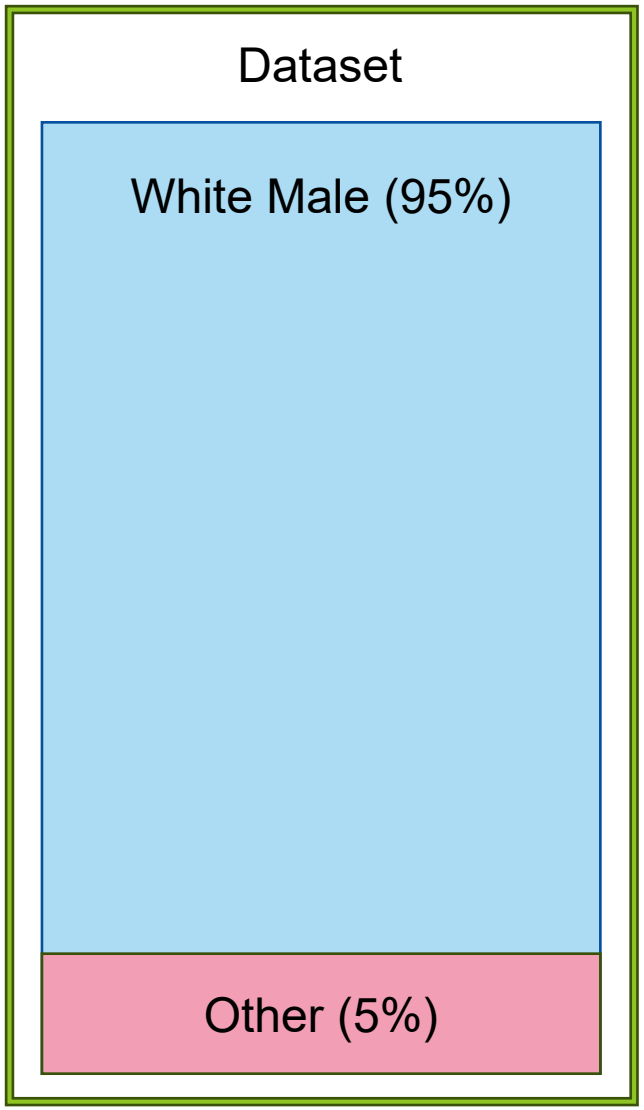
- There were no black people in North Carolina in the 1960's???
- This is not an explicit lesson from the Andy Griffith Show, but it is a source of *unconscious bias*.
- When asked to show pictures of "happy families", children will show pictures of white people, if their only source of learning is 1960's television.
- **Everyone** has unconscious bias.
- Fortunately, people, even children are capable of **conscious** thought.
- That is all I have to say about people.

AI Does Not Have Conscious Thought

- If I ask AI to show me a picture of a Doctor, and it shows me a picture of a white male, is that wrong?
- It may be true; it may really be a doctor.
- If it is true; how can it be wrong?
- It is wrong: If I ask AI to show me a picture of a doctor, and it shows me a picture of a white male **100%** of the time.
- This is bias, this is not the truth, and this bias does not reflect our core values.
- We know know bias comes from training data.



Binary Decision Models - Which is more Accurate? (Completely Biased or Completely Unbiased)



Accuracy (??%) →

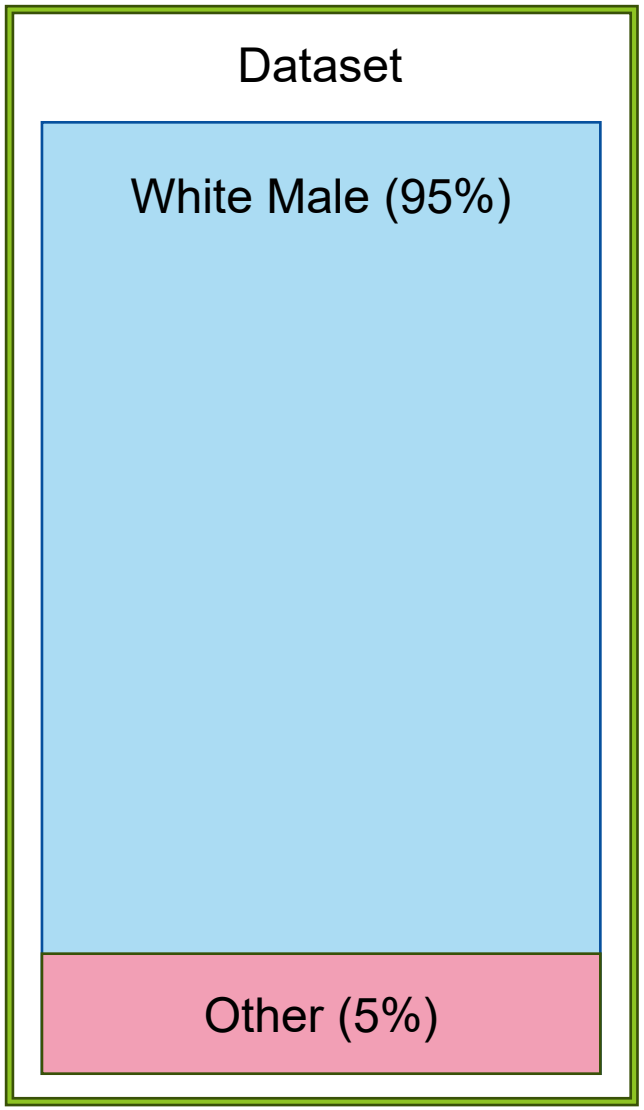
Accuracy (??%) →

Model Designs

```
#
# a completely biased model
#
predict white male
```

```
#
# a completely unbiased model
#
if coin_toss == HEADS
      predict white male
else
      predict other
endif
```

Binary Decision Models - Which is more Accurate? (Completely Biased or Completely Unbiased)



Accuracy (95%) →

Accuracy (??%) →

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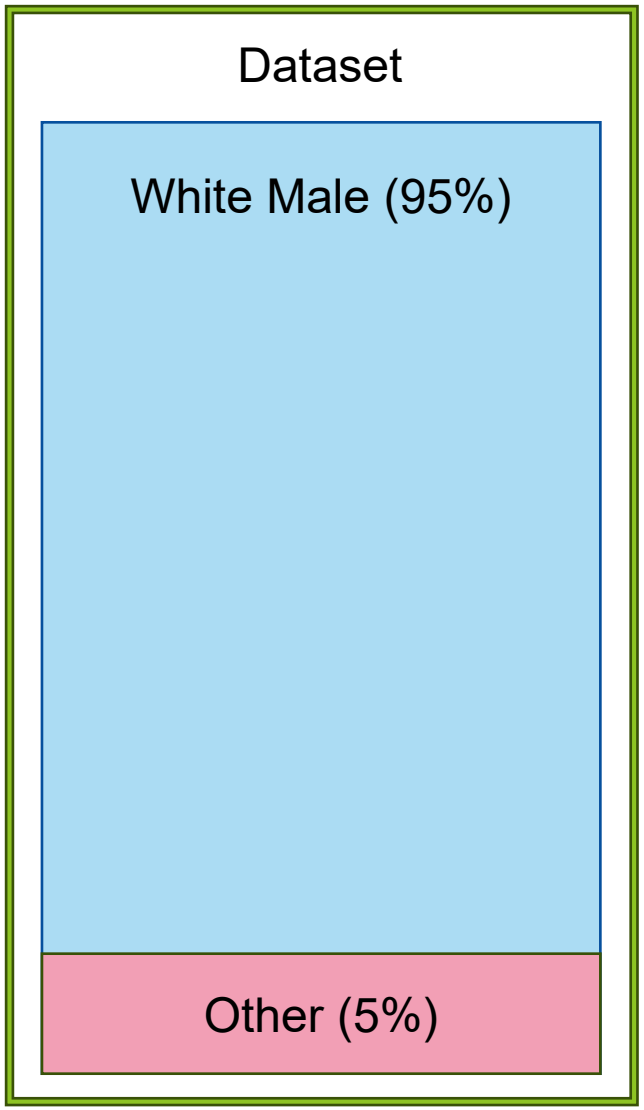

Accuracy (95%) →

Accuracy (47.5%) →

Model Designs

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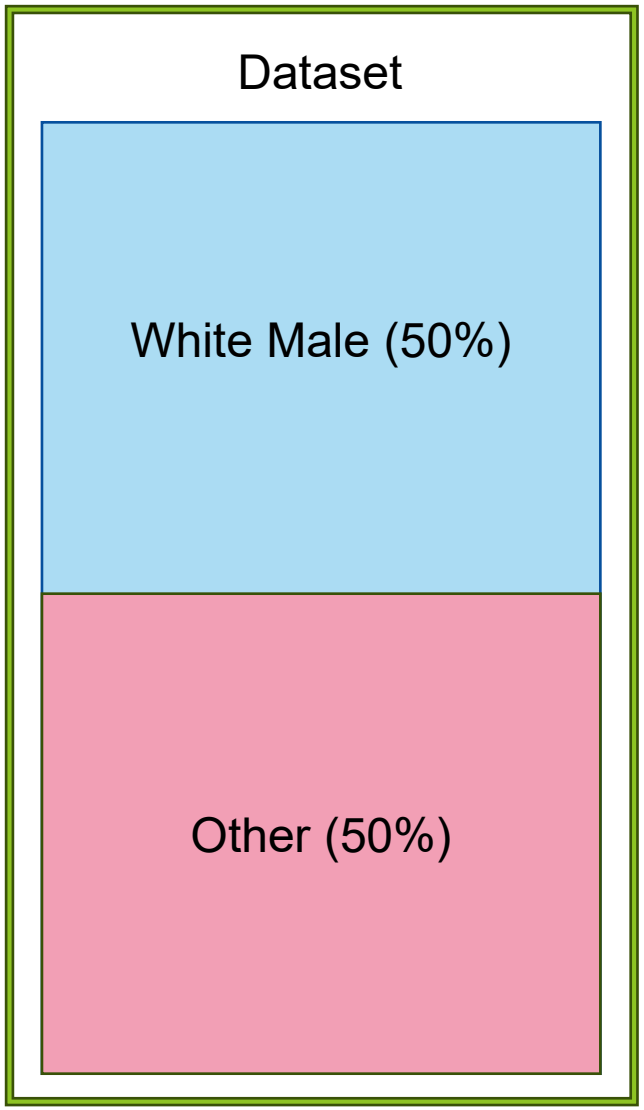

Accuracy (??%) →

Accuracy (??%) →

Model Designs

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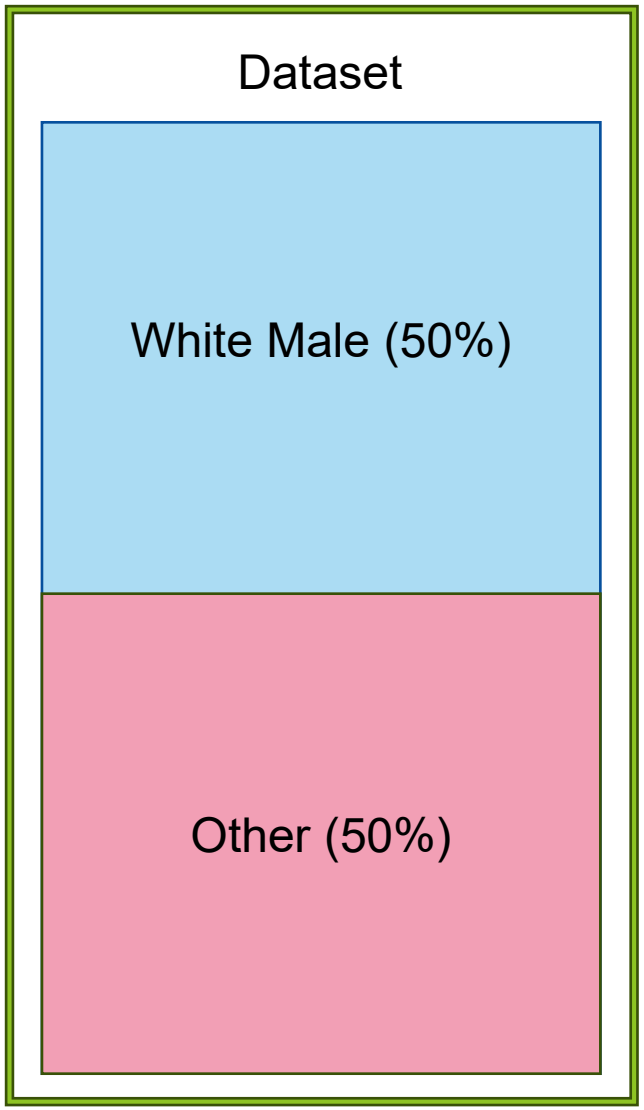

Accuracy (50%) →

Accuracy (??%) →

Model Designs

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# a completely biased model
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predict white male
```

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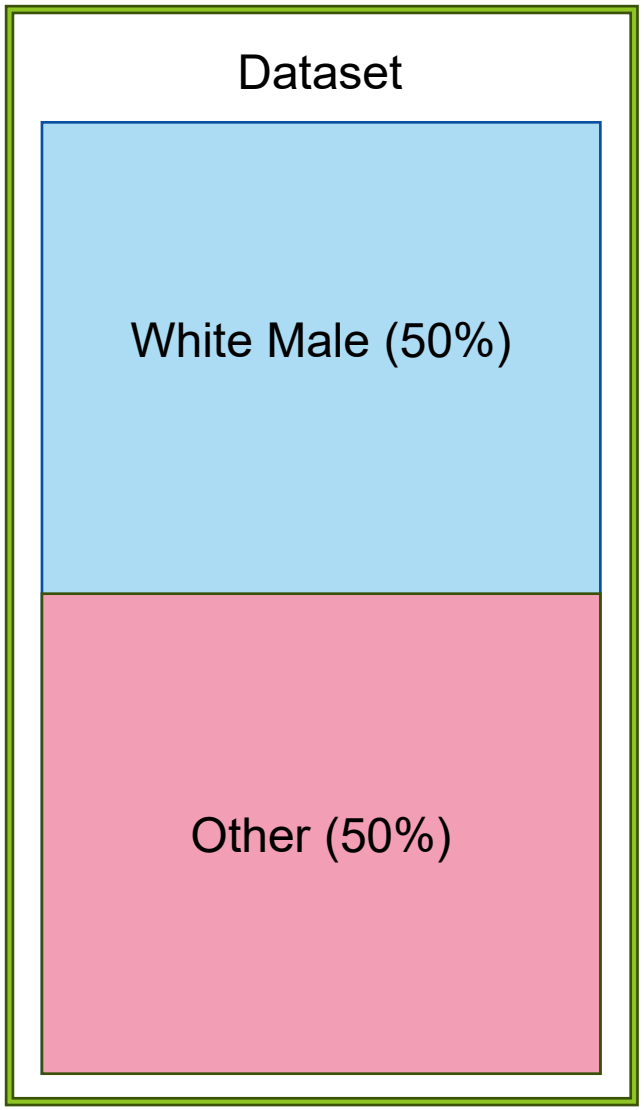
if coin_toss == HEADS
      predict white male
else
      predict other
endif
```

Binary Decision Models - Which is more Accurate? (Completely Biased or Completely Unbiased)



Accuracy (50%) →

Accuracy (50%) →

Model Designs

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predict white male
```

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# a completely unbiased model
#
if coin_toss == HEADS
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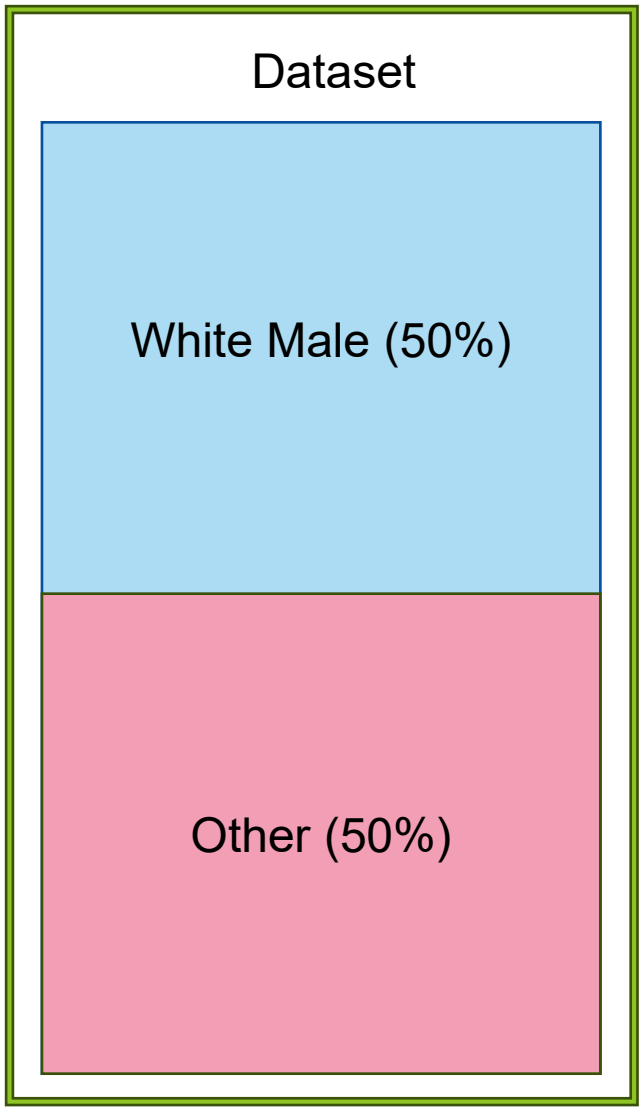
      predict other
endif
```

Binary Decision Models - Which is more Accurate?
(What is the highest possible accuracy for a logical model?)



Highest Possible Accuracy
(50% - 100%) →

Highest Possible Accuracy
(50%) →

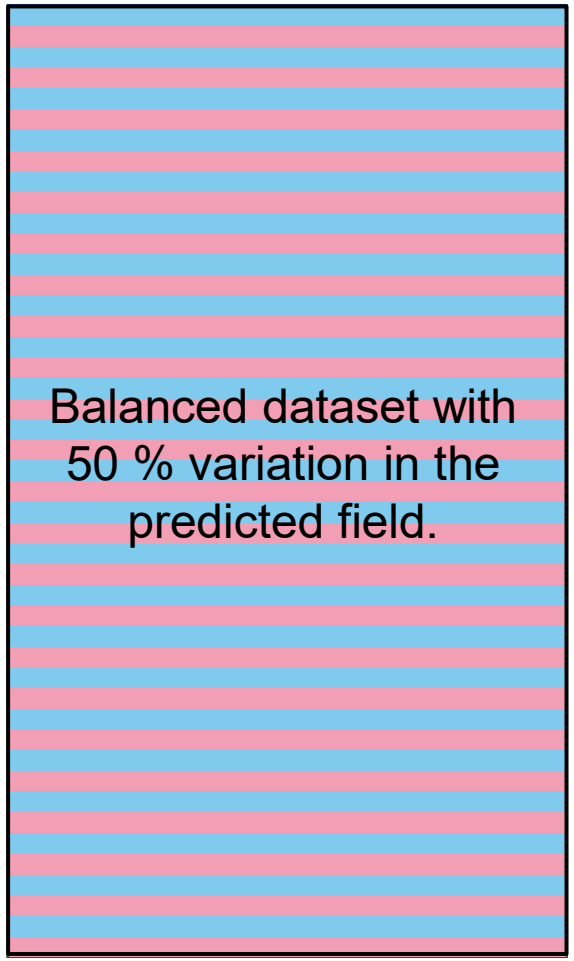
Model Designs

```
#
# a completely logical model
#
train on balanced dataset
predict highest score answer
```

```
#
# a completely random model
#
if coin_toss == HEADS
      predict white male
else
      predict other
endif
```

Completely Biased Model vs. Completely Unbiased Model
(Some datasets are just not accurate)

Dataset



Highest Possible Accuracy (50%) →

Highest Possible Accuracy (50%) →

Model Designs

```
#
# a completely logical model
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A model for predicting success in college.
(To determine who gets a scholarship.)

Race	Gender	Ethnicity	SAT Score	High School Grades (%)	Middle School Grades (%)	Zip Code	Parent's Occupation

- **Pop quiz:** Which of these fields is the "best" predictor of college success? (you can choose only one.)

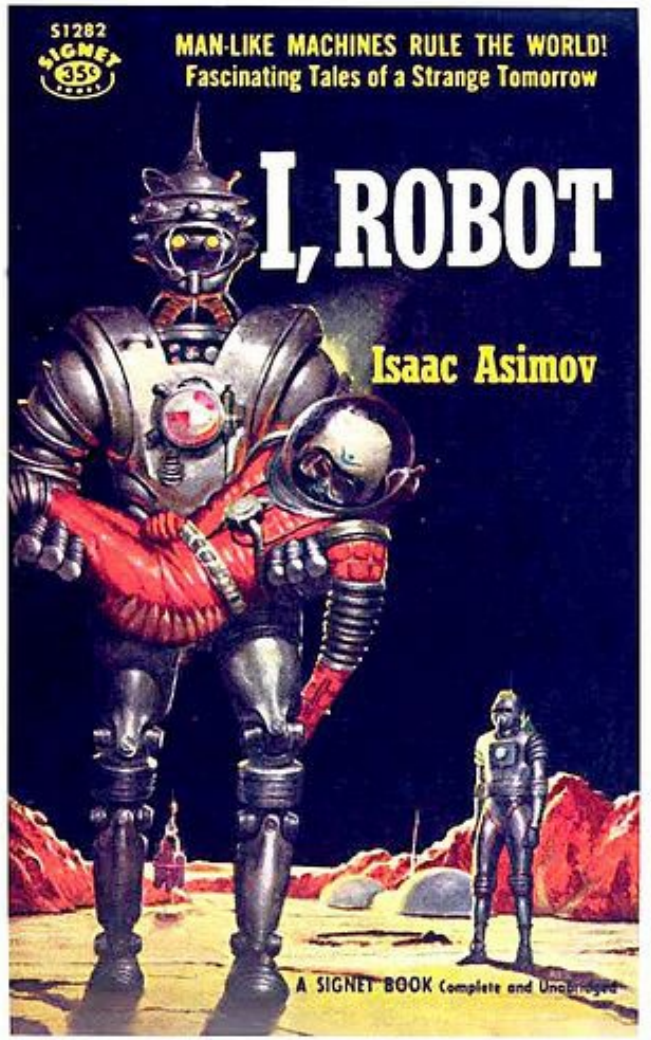
A model for predicting success in college.
(To determine who gets a scholarship.)

Race	Gender	Ethnicity	SAT Score	High School Grades (%)	Middle School Grades (%)	Zip Code	Parent's Occupation

- **Answer:** Zip Code
- Zip code is strongly correlated with race and ethnicity and there are zip codes where women and girls do not have the same opportunities as men and boys.
- So, if we remove race, gender, and ethnicity to avoid bias, but we leave in zip code, **we still have a biased model**.
- Models are trained for one purpose and used for another (transfer learning).
- Problem is, we rely on pretrained models, so it is too late to remove fields.

Using rules to control bias in AI and Machine Learning.

- There is no Azimovian ruleset which controls AI.
- The positronic chipset of science fiction is **fiction.**
- So, we impose our own rules on AI.
- Try asking ChatGpt for the recipe for napalm.
- Unfortunately, rules are easily broken or bypassed.
- The first step to **controlling** bias is **understanding** bias.



Understanding Conscious and Unconscious Bias in Artificial Intelligence and Machine Learning

All models ***have bias***, but some are useful.

-- George E. P. Box (*imagined*)

Idaho National Laboratory

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National Institutes of Health
Office of Data Science Strategy

NIH perspectives on Ethical and Equitable AI

Laura Biven, PhD
Lead, Integrated Infrastructure and Emerging Technologies
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Samson Gebreab, PhD
Lead, AIM-AHEAD
Office of Data Science Strategy
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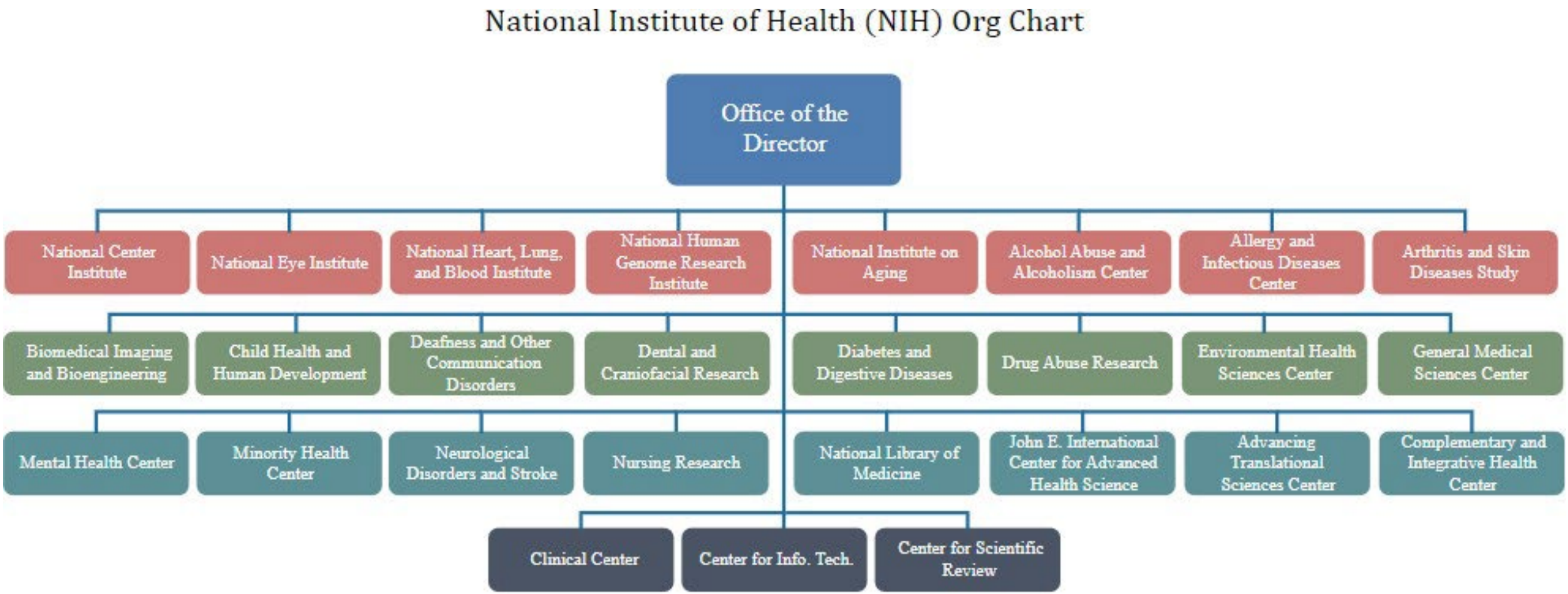
National Institutes of Health Institutes, Centers, and Offices



NIH Strategic Plan for Data Science (update)

VISION:
A modernized, integrated, FAIR, biomedical data ecosystem

Goal 1: *Improve Capabilities to Sustain the NIH Policy for Data Management and Sharing*

- ***Goal 2:*** *Develop Programs to Enhance Human Derived Data for Research*
- ***Goal 3****: Provide New Opportunities in Software, Computational Methods, and Artificial Intelligence*
- ***Goal 4:*** *Support for a Federated Biomedical Research Data Infrastructure*
- ***Goal 5****: Strengthen a Broad Community in Data Science*

https://dpcpsi.nih.gov/council/september-7-2023-agenda

National AI Initiative

https://www.ai.gov/

DIVISION E—NATIONAL ARTIFICIAL INTELLIGENCE INITIATIVE ACT OF 2020

SEC. 5001. SHORT TITLE.

This division may be cited as the "National Artificial Intelligence Initiative Act of 2020".

Established a coordinated program across the entire Federal government to accelerate AI research and application for the Nation's economic prosperity and national security.

Blueprint for an AI Bill of Rights

Safe and Effective Systems

You should be protected from unsafe or ineffective systems

Algorithmic Discrimination Protections

You should not face discrimination by algorithms and systems should be used and designed in an equitable way.

Data Privacy

You should be protected from abusive data practices via built-in protections and you should have agency over how data about you is used.

Notice and Explanation

You should know that an automated system is being used and understand how and why it contributes to outcomes that impact you.

Human Alternatives, Consideration, and Fallback

You should be able to opt out, where appropriate, and have access to a person who can quickly consider and remedy problems you encounter.

https://www.whitehouse.gov/ostp/ai-bill-of-rights/

NIST AI Risk Management Framework

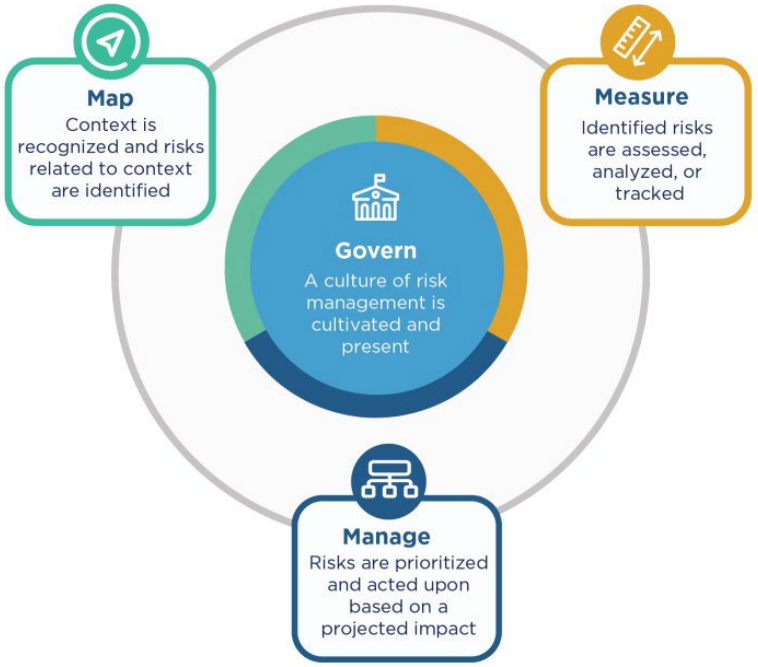


Fig. 5. Functions organize AI risk management activities at their highest level to govern, map, measure, and manage AI risks. Governance is designed to be a cross-cutting function to inform and be infused throughout the other three functions.

https://nvlpubs.nist.gov/nistpubs/ai/NIST.AI.100-1.pdf

Compared to traditional software, AI-specific risks that are new or increased include:

- The data used for building an AI system may not be a true or appropriate representation of the context or intended use of the AI system, and the ground truth may either not exist or not be available. Additionally, harmful bias and other data quality issues can affect AI system trustworthiness, which could lead to negative impacts.
- Intentional or unintentional changes during training may fundamentally alter AI system performance.
- Datasets used to train AI systems may become detached from their original and intended context or may become stale or outdated relative to deployment context.
- AI system scale and complexity
- Use of pre-trained models
- Higher degree of difficulty in predicting failure modes for emergent properties
- Privacy risk due to enhanced data aggregation capability for AI systems.
- Increased opacity and concerns about reproducibility.
- Computational costs for developing AI systems and their impact on the environment and planet.
- Inability to predict or detect the side effects of AI-based systems beyond statistical measures.

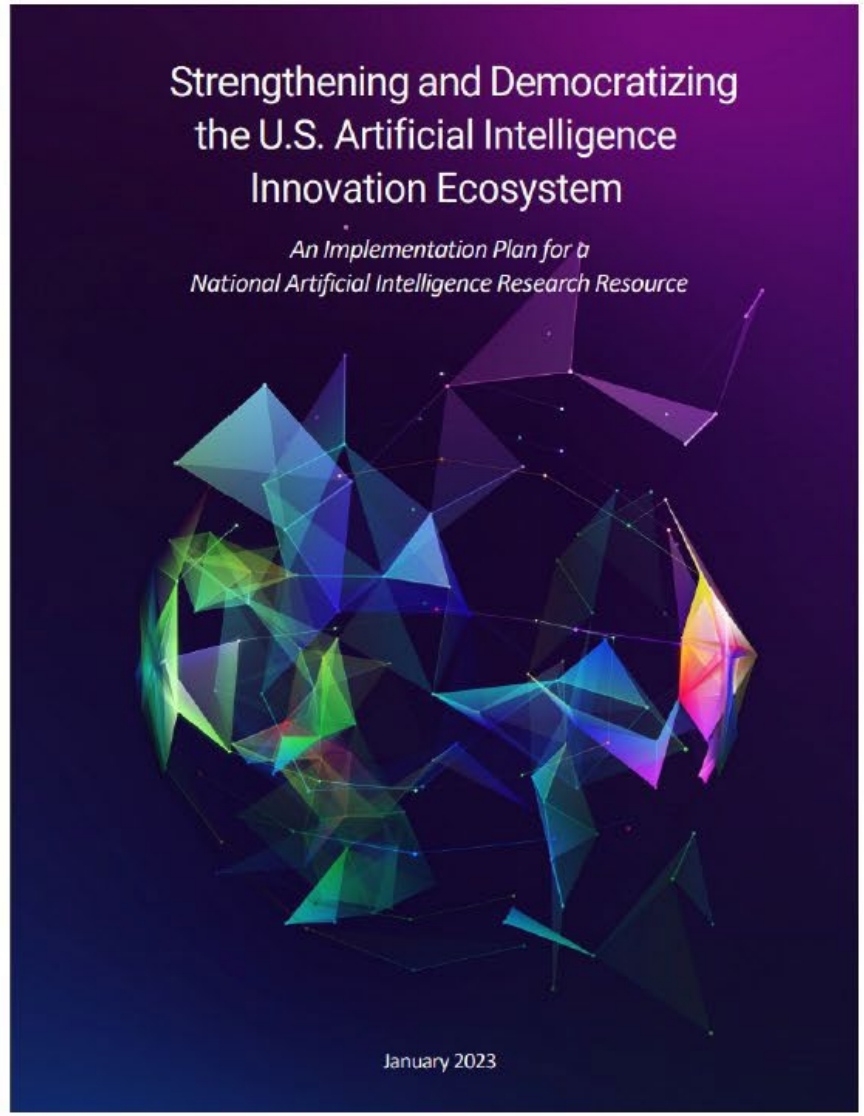
Executive Order on the Safe, Secure, and Trustworthy Development and U Intelligence

- New Standards for AI Safety and Security
- Protecting Americans' Privacy
- Advancing Equity and Civil Rights
- Standing Up for Consumers, Patients, and Students
- Supporting Workers
- Promoting Innovation and Competition
- Advancing American Leadership Abroad
- Ensuring Responsible and Effective Government Use of AI

National AI Research Resource (NAIRR) Background

- NAIRR Task Force launched in June 2021 to investigate feasibility of a NAIRR.
- Final report submitted in January 2023 provided roadmap for NAIRR implementation including an optional pilot.
- **Now:** An interagency working group is meeting weekly to plan and implement a pilot.

https://www.ai.gov/wp-content/uploads/2023/01/NAIRR-TF-Final-Report-2023.pdf
https://www.ai.gov/nairrtf/



National AI Research Resource: a shared research infrastructure facilitating access to compute, software, datasets, models, training and user support for researchers and students

Objective: To strengthen and democratize the U.S. AI Innovation ecosystem in a way that protects privacy, civil rights, and civil liberties

Goals:

Spur **innovation**

Increase the **diversity** of talent in AI

Improve U.S. **capacity** for AI R&D

Advance **trustworthy AI**

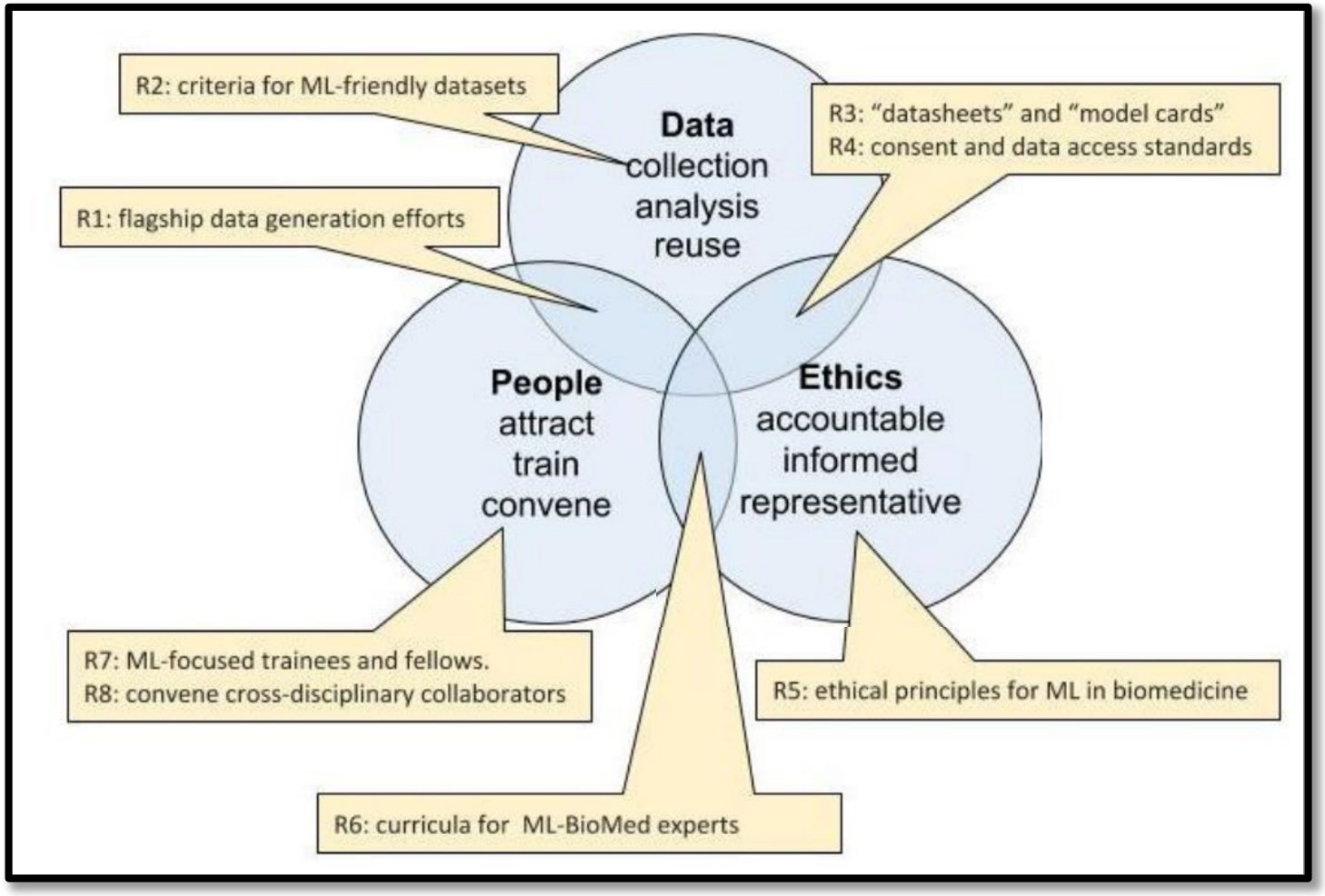
Piloting the NAIRR

Goals

1. Demonstrate the value and impact of the NAIRR to federal stakeholders and the AI R&D community.
2. Support novel and transformative AI research and education in areas of societal interest with participation from broad and diverse communities.
3. Gain initial experience, exposing technical, socio-technical and policy issues early to continually advance and refine the NAIRR design.
4. Inform inter-agency collaborative efforts to develop a management and governance model towards in preparation for full NAIRR implementation.

Biomedical AI: Visions for an **ETHICAL** Future

NIH ACD AI Working Group Recommendations:



- Outlined opportunities to fuse AI/ML with exponential increase in biomedical data
- Ethics was identified as equally important to Data and People, reflecting the primary importance of infusing ethical thinking into AI/ML use in biomedical research

https://www.acd.od.nih.gov/documents/presentations/12132019AI_FinalReport.pdf

Biomedical / Health

- AI trained on human data
- AI trained on human decisions
- AI applied to people or groups
- Causality in biomedical systems is inherently complex
- AI is already ubiquitous in biomedical research
- Record reconstruction
- Curse of Dimensionality / Multimodal data / bias

Engagement and Listening

Developing social and technical approaches to defining and implementing ethics across the AI data ecosystem

**

Creating a culture of ethical inquiry

March 14-18, 2022 from 10:00 AM ET - 5 PM ET.
https://apply.hub.ki/aiandethicsinnovationlab/

Toward an ethical framework for Artificial Intelligence in Biomedical and Behavioral Research: *Transparency for Data and Model Reuse*

- Begin to develop transparency guidelines for NIH awardees using, developing, or contributing to AI
- Identify tools and capability gaps.
- Look to the future: Identify trends in AI and transparency

Tina Hernandez-Boussard (Stanford)

Julia Stoyanovich (NYU)

Aaron Lee (U Washington)

Workshop planned for Feb 7-9, 2024

AIM-AHEAD

AI/ML Symposium 12.0 – Diversi
Inclusion in AI/ML

Samson Y. Gebreab, P
National Institutes of Health
Office of Data Science Strategy
AHEAD Program

AI can be a double-edged sword

- AI has the potential promise to advance medicine and mitigate bias
- It also has the potential to harm- such as reinforcing bias and long-standing **systemic social and health inequities**
- The most at-risk groups to face bias and discrimination often belong to minorities that have been historically and systemically marginalized communities
- The lack of consideration of **Equity, Diversity, and Inclusion** concepts, principles, and practices in developing and implementing AI within healthcare settings can exacerbate bias and discrimination

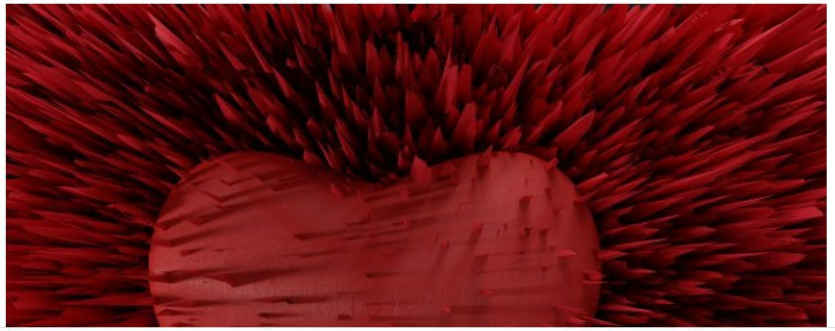
Potential Bias in AI

- Unrepresentative data
- Bias within training data
- Lack of data in lived experiences, historical/cultural contexts such as social determinants of health
- Lack of diversity of researchers
- Bad design/asking the wrong question
- Bias in algorithm development and implementation

POPULATION HEALTH NEWS

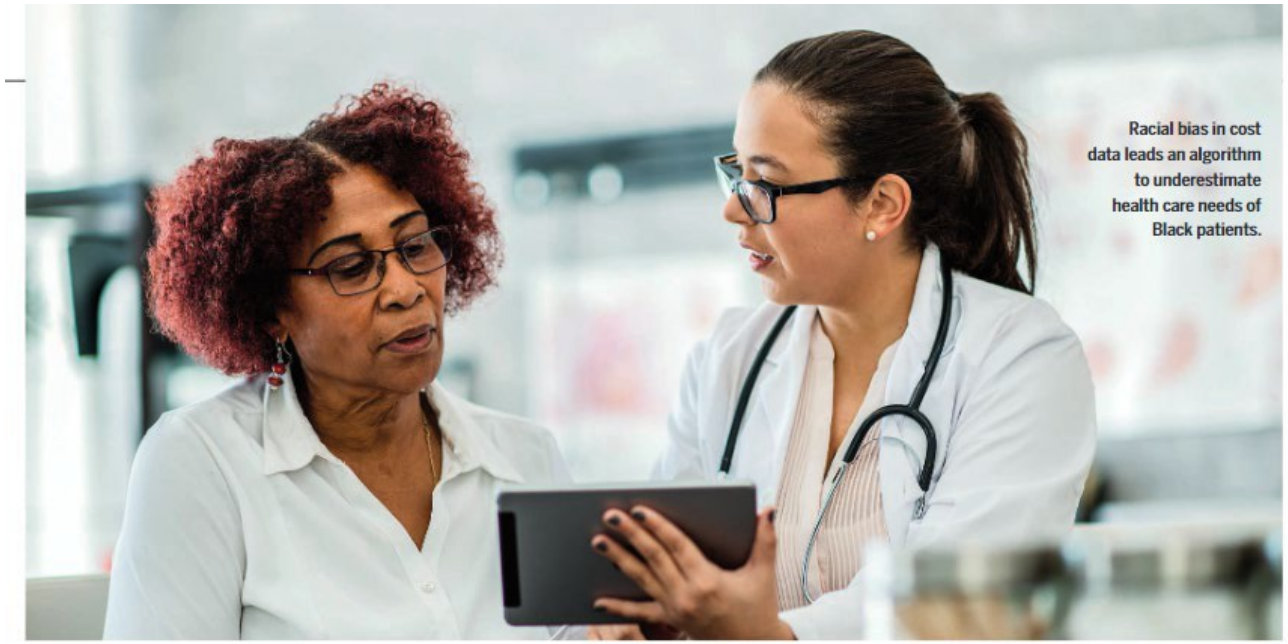
SDOH Improves Performance of Heart Failure Mortality Predictive Model

Researchers have found that machine-learning models that incorporate social determinants of health data perform better than traditional methods of predicting heart failure deaths among Black patients.



JAMA Cardiol. 2022;7(8):844-854.
doi:10.1001/jamacardio.2022.1900

Racial Bias in AI



Racial bias in cost data leads an algorithm to underestimate health care needs of Black patients.

SOCIAL SCIENCE

Assessing risk, automating racism

A health care algorithm reflects underlying racial bias in society

By **Ruha Benjamin**

era, the intention to deepen racial inequities was more explicit, today coded inequ-

beyond the algorithm developers by constructing a more fine-grained measure of

nature

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NEWS | 24 October 2019 | Update 26 October 2019

Millions of black people affected by racial bias in health-care algorithms

Study reveals rampant racism in decision-making software used by US hospitals – and highlights ways to correct it.

Heidi Ledford

Credit: https://www.science.org/doi/10.1126/science.aaz3873

Artificial Intelligence at the NIH

AIM AHEAD

Artificial Intelligence/Machine Learning Consortium to Advance Health Equity and Researcher Diversity (AIM-AHEAD)

https://datascience.nih.gov/artificial-intelligence/aim-ahead

BRIDGE2AI

Bridge to Artificial Intelligence (Bridge2AI)

https://www.commonfund.nih.gov/bridge2ai

ODSS-Led Initiatives

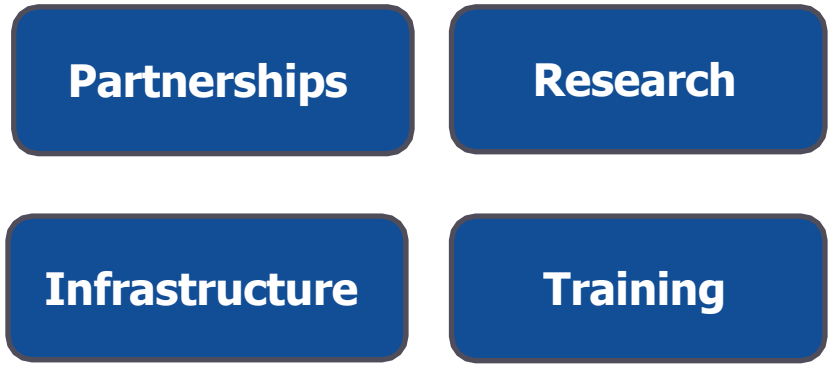
Catalyzing new opportunities in AI and data science

Institute- and Center-Funded Initiatives

Developing and implementing AI/ML technologies across biomedical research domains

SciHARe

About the Artificial Intelligence/Machine Learning Consortium to Advance Health Equity and Researcher Diversity (AIM-AHEAD)



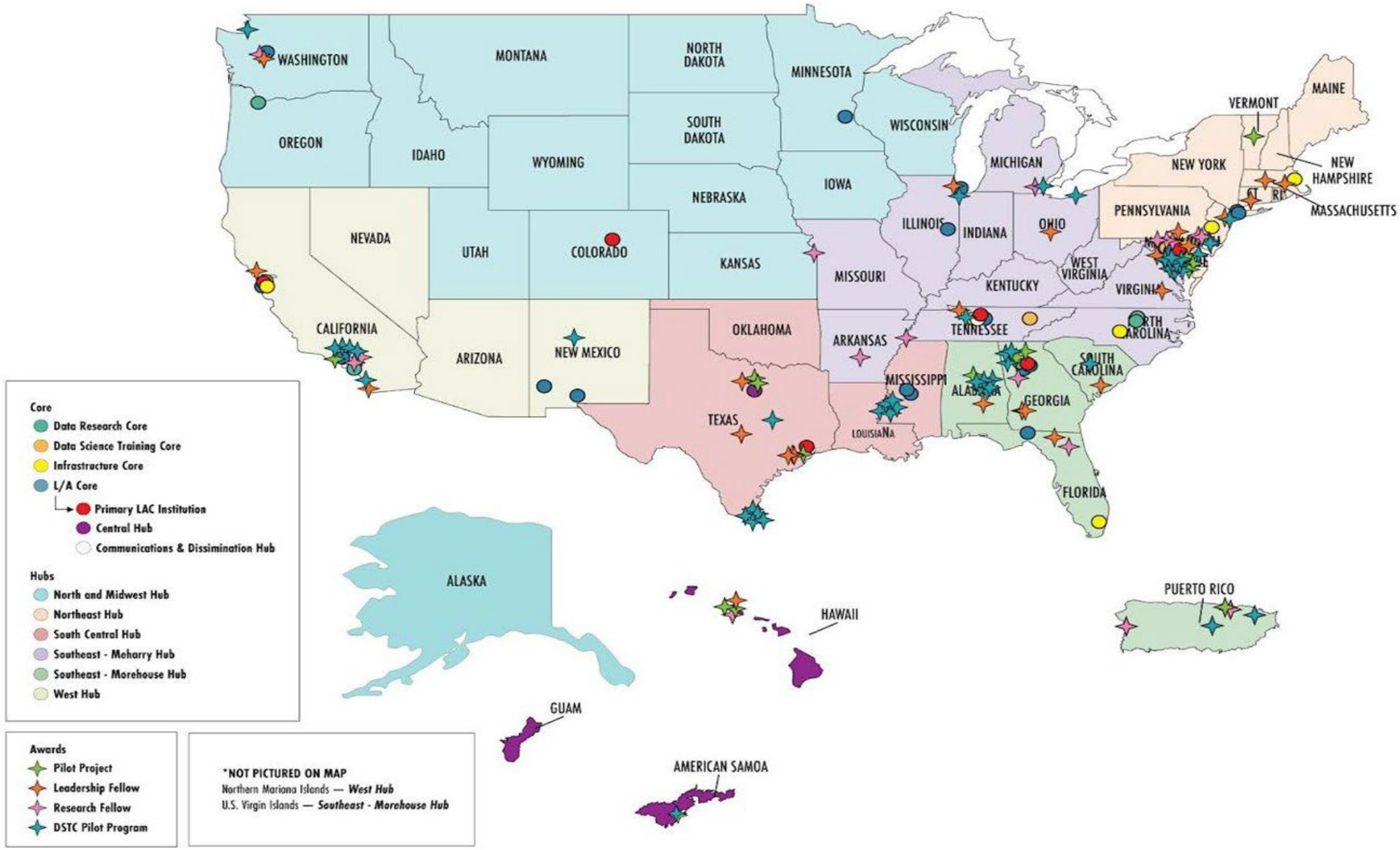
Goals:

- to enhance the **participation** and **representation** of researchers and communities currently underrepresented in the development of artificial intelligence and machine learning (AI/ML) models

- to **address health disparities** and inequities using AI/ML

- to **improve the capabilities** of this emerging technology

https://aim-ahead.net/
https://datascience.nih.gov/artificial-intelligence/aim-ahead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Data Science Training Core
Infrastructure Core
L/A Core
Primary LAC Institution
Central Hub
Communications & Dissimination Hub
Hubs
North and Midwest Hub
Northeast Hub
South Central Hub
Southeast - Meharry Hub
Southeast - Morehouse Hub
West Hub
Awards
Pilot Project
Leadership Fellow
Research Fellow
DSTC Pilot Program
*NOT PICTURED ON MAP
Northern Mariana Islands — West Hub
U.S. Virgin Islands — Southeast - Morehouse Hub

Increasing Diversity Researcher in AI/ML

- 22 **Research Fellowships** awarded in 2022, engaging early-career researchers from under-represented populations in biomedical research that involves the use of AI/ML methodologies on Electronic Health Record Data.
- 25 **Leadership Fellowships** awarded in 2022, preparing diverse leaders to champion the use of AI/ML in addressing persistent health disparities
- 46 **Professional Development**: trained underrepresented healthcare workers to enhance awareness and understanding of AI and health equity.
- **AIM-AHEAD connect** platform launched as virtual hub for research at the intersection of AI/ML and health equity.
- Numerous webinars and symposia, including AI for Health Equity (AIEHS 2022)

Addressing Health Disparities and Inequities Using AI/ML

Houston Methodist Research Institute

Dr. Amy Waterman

- Enhance the Kidney Transplant Derailers Index to Predict Transplant Drop-Out Risk for African American and Hispanic Patients
- Novel clinical- and community-level variables in multiethnic populations

University of North Texas

Dr. Suman Niranjan

- Evaluate bias in predictive and explainable ML algorithms among older adults with cancer
- Multiple data sources, SDoH, cover diverse groups, including rural populations

The University of Hawaii at Manoa

Dr. Alexander Stokes

- Address intersex under-diagnosis/under-recognition
- Mitigate bias in the application of AI/ML to intersex UD/UR

University of California, Irvine

Dr. Luohua Jaing

- Cardiometabolic risk prediction among AI/AN adults
- Increase AI/AN stakeholder active engagement and collaboration in the AIM-AHEAD Consortium

Engaging Communities through Participatory Research Projects

Central Hub

- Make existing Papakolea community data AI/ML ready
- Integrate genomics and EHR to address lung cancer for Native Hawaiians and Other Pacific Islanders (NH/PI)

Southeast Hub-Meharry

- Identify healthcare biases and determinants of high cancer death rates in Rural Appalachia
- Collaborate with Vibrent Health Inc, AWS, and Appalachian Clinical Translation Science Institute

West Hub

- Conduct large-scale analysis to addres
  American Indian/Alaska Native (AI/AN) a
- Collaborate with the Los Angeles Cour
  Services on EHR and digital health upta
  patients

North/Midwest Hub

- AI chatbot to assist AI/AN patients wit
  care, and management

BIG DATA & ARTIFICIAL INTELLIGENCE

AIM-AHEAD's Bridge the Gap Initiative

The Artificial Intelligence/Machine Learning Consortium to Adva
Equity and Researcher Diversity (AIM- AHEAD) engaged and empowered the Birmingham, AL community through the Bridge the Gap Initiative.

Participants presented their ideas for how AI/ML could be used to positively impact health topics of their choice.

Click here to watch a video recap.

"I came to learn about heart disease, **hypertension** because it runs in my family…and **cancer**.

It's been beneficial working with other people, learning to take responsibility for my health…. and **how AI can help me** with that." **- Participant**

Impact

- **Improved** participant understanding of AI/ML
- **Helped** identify opportunities where AI/ML could impact individual and community health outcomes
- **Increased** understanding of ethical challenges and biases that can occur within the field of AI/ML
- **Enabled** underrepresented communities to contribute to the conversation on AI/ML and health care

Science Collaborative for Health Disparities and Artificial Intelligence Bias Reduction (ScHARe)

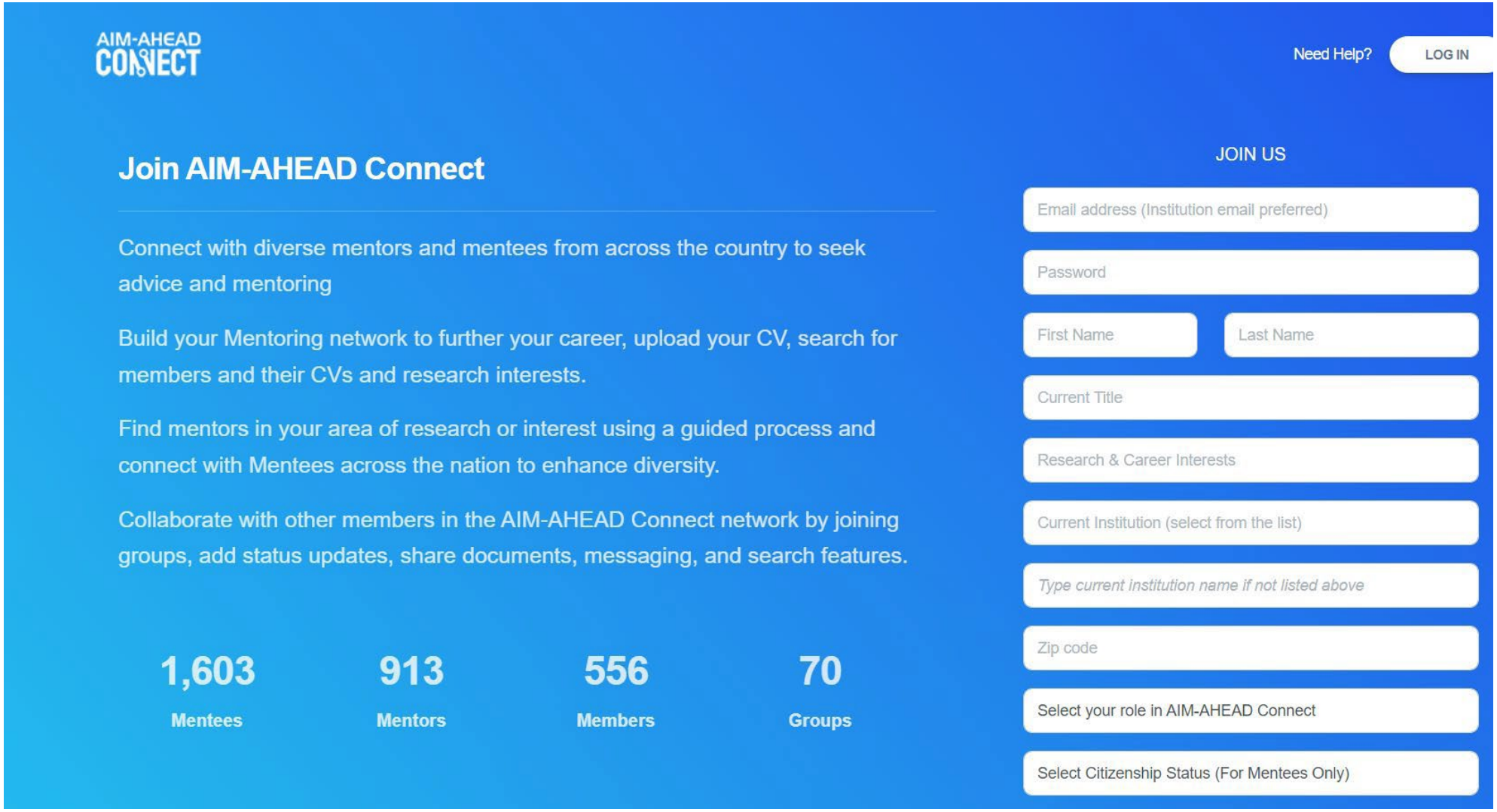
- A cloud platform that holds a wealth of population, social determinates of health, and other social science datasets
- A resource to test bias mitigation strategies and use AI to advance health disparities research in chronic disease and health equity.
- Think-a-Thons to help prepare low-resource institutions and researchers, students, and collaborators from populations with health disparities who are underrepresented in AI.

https://www.nimhd.nih.gov/resources/schare/

AIM-AHEAD CONNECT

connect.aim-ahead.net

Over 3000 members



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Curtis.Smith@inl.gov

Thank you!

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