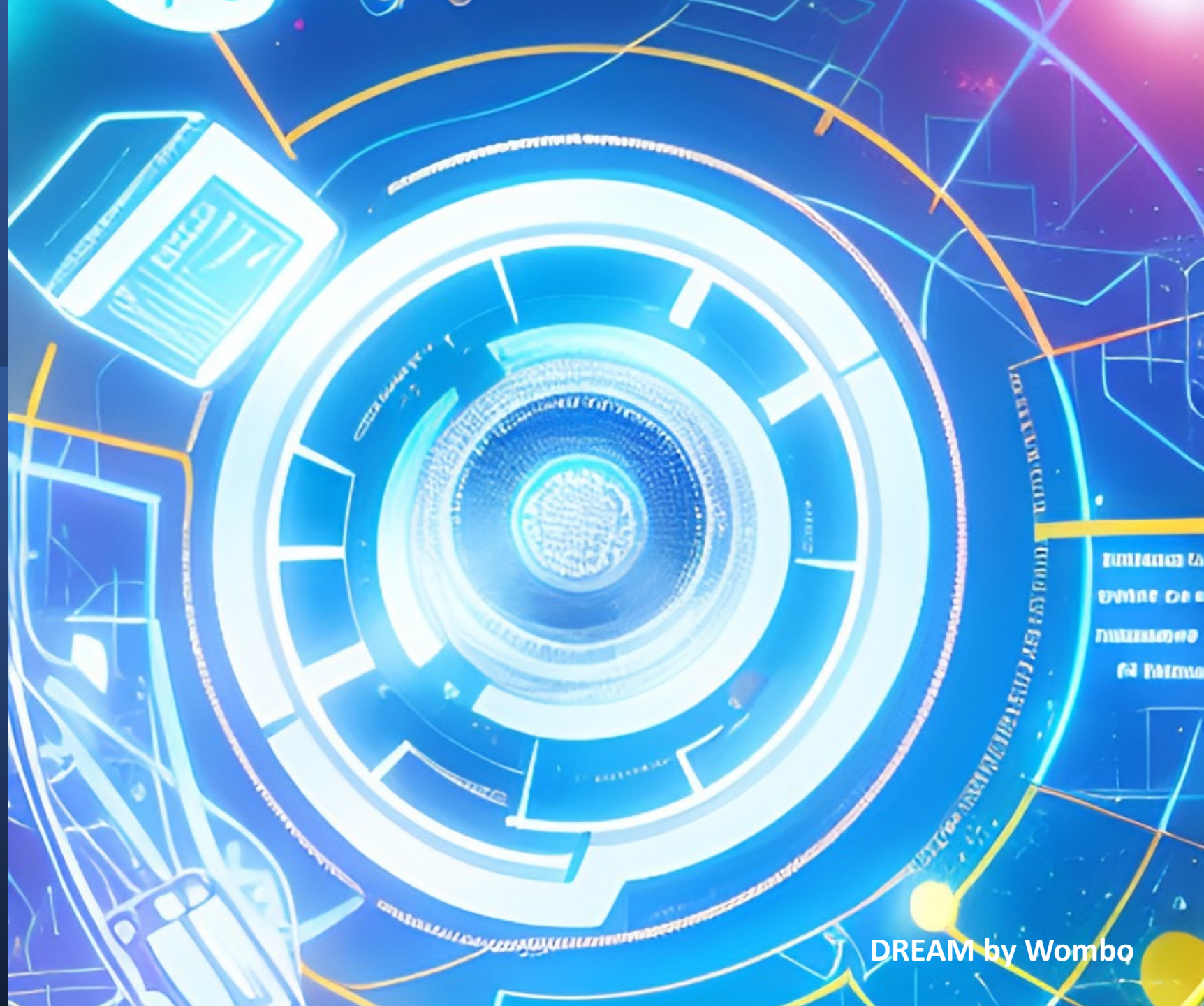


Rae Walker, PhD RN FAAN  
Elaine Marieb College of Nursing  
University of Massachusetts Amherst

# Imagining Radical Futurities for Nursing Informatics in an A.I. Era



DREAM by Wombo

# OBJECTIVES

OBJECTIVE 1: Discuss critical histories of nursing informatics and their relevance to understanding and engaging with contemporary nursing workforce issues, clinical challenges and technologies such as A.I./machine learning

OBJECTIVE 2: Imagine and articulate shared commitments to creating new and radical futures for a nursing informatics that moves us closer to health justice in an A.I. era.

I have no conflicts of interest or financial support to disclose.



- 
- State of Nursing & Workforce
  - COVID-19 Pandemic
  - Climate Disaster
  - Social Media & Technologies
  - Labor & Human Rights
  - What's On the Horizon...





"lonely blue boat, stuck in the mud" by kylepost photography is licensed under CC BY 2.0

NEW COMPETENCIES & PRACTICE REQUIREMENTS

NEW POLICIES & PROCESSES

NEW APPS & TECHNOLOGIES

SO MANY PROMISES

THIS IS  
UNSUSTAINABLE





United States



2 minute read · May 1, 2023 12:03 PM EDT · Last Updated 11 days ago

# One-third of US nurses plan to quit profession, survey shows

By Khushi Mandowara ▾ and Leroy Leo ▾



By now almost everyone has heard about it...

**HOW WE  
GOT  
HERE?**

**NEW  
FUTURES?**



**WE  
ARE  
HERE**

**STATUS  
QUO**

**NEW  
FUTURES?**



ARE YOU IN?

INVESTMENTS

TALKS TO THE PUBLIC

BUDGETS

STRATEGIC  
PRIORITIES

TO HIRE

SALARIES

WHO HOLDS

TECHNOLOGY

DATA

THE POWER?

STORIES

TO DEFINE  
SOLUTIONS

TO FIRE

RESOURCES

TO DEFINE  
PROBLEMS



<https://bit.ly/41IkBeV>

HOW WE  
GOT  
HERE?



WE  
ARE  
HERE



A small, weathered blue boat is stuck in a muddy, shallow body of water. The boat is positioned in the center-right of the frame, with its bow pointing towards the viewer. The water is dark and murky, reflecting the overcast sky. Several wooden posts are visible in the water, some connected by ropes, suggesting a mooring or fishing area. The overall scene is desolate and evokes a sense of being stuck or trapped.

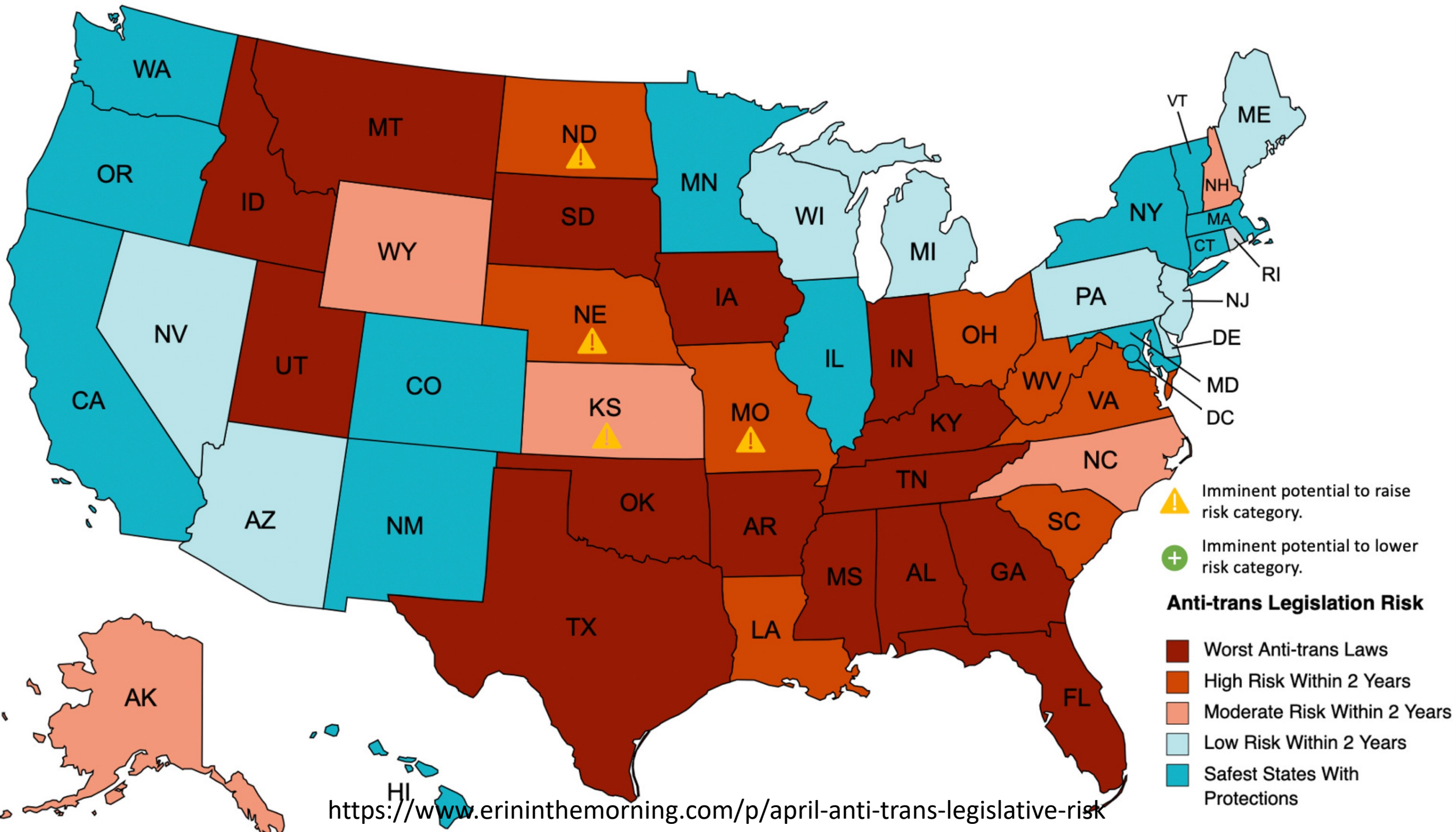
# STUCK

"lonely blue boat, stuck in the mud" by kylepost photography is licensed under CC BY 2.0



Illustration: Dilek Baykara for The Intercept







STORIES ABOUT DATA



**Lucinda Canty, PhD, CNM, FACNM** · 3rd+

[+ Follow](#) ⋮

Mother, nurse-midwife, nurse researcher, assistant nursin...  
10mo · 🌐

Lucinda's House is working in collaboration with local doulas to host 4 Community Baby Showers throughout CT to celebrate pregnant women of color. The first Community Baby Shower of the Summer is with Doula Ashanti Rivera of a Woman's Choice Charitable Associations in Waterbury 7/30/2022 @ 12 pm. Please share with expectant mothers. Please support this initiative to address maternal health disparities. Thank you!



## Community Baby Shower

Celebrating BIPOC parents-to-be with a  
FREE community baby shower.  
Enjoy raffles, cake, gifts, and more!

Saturday, July 30th | 12-4PM  
44 Waterbury Rd 2D, Prospect CT

*More Dates  
Coming Soon:*

Bridgport - August 2022  
New Haven - October 2022  
Hartford - November 2022



Presented by

&



LUCINDA'S HOUSE

RSVP: [www.womanschoiceperinatal.com/events](http://www.womanschoiceperinatal.com/events)



transhealth  
NORTHAMPTON

transhealth  
NORTHAMPTON

Dallas Ducar  
transhealth

Photo credit: Kate Sosin



GEORGE W. BUSH  
INSTITUTE



GEORGE W. BUSH  
INSTITUTE



GEORGE W. BUSH  
INSTITUTE



GEORGE W. BUSH  
INSTITUTE

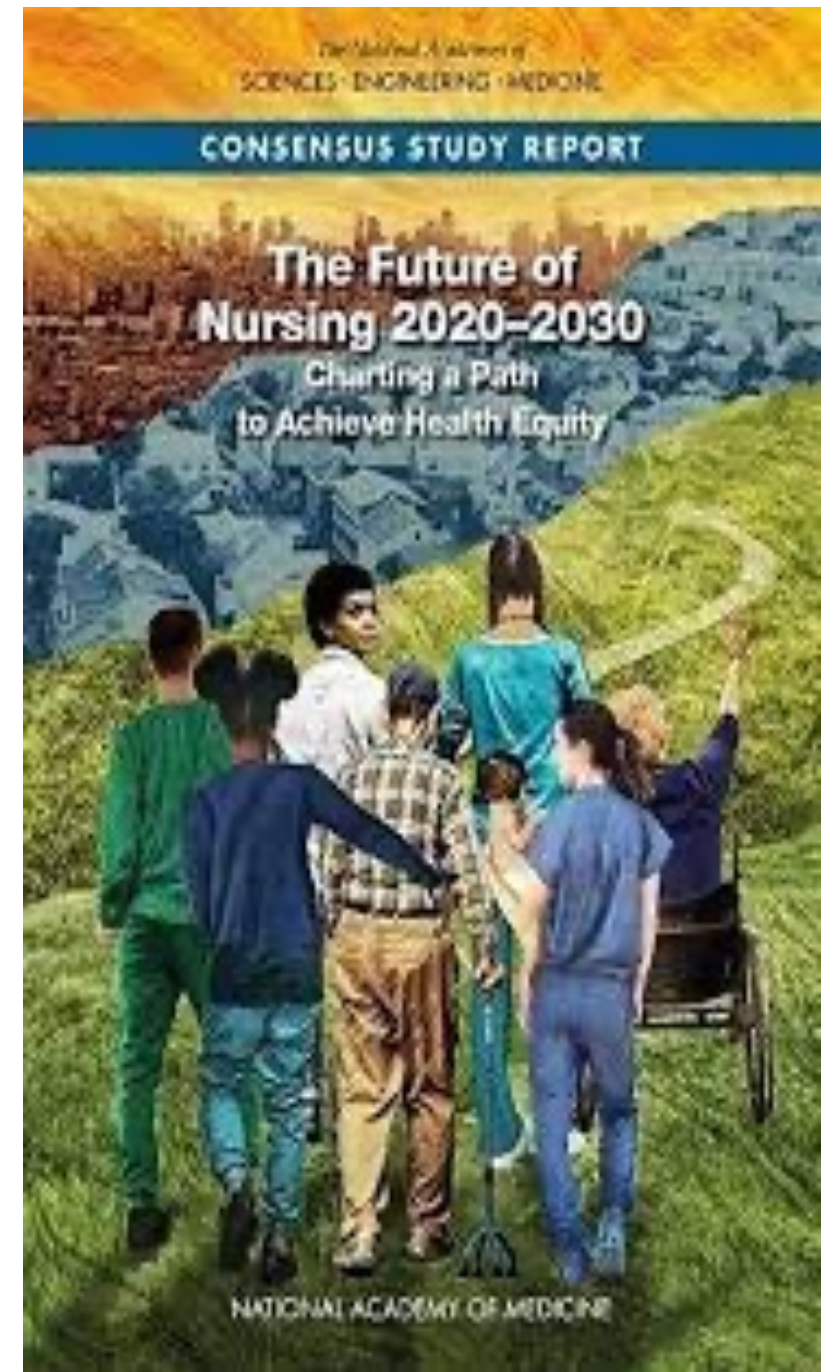
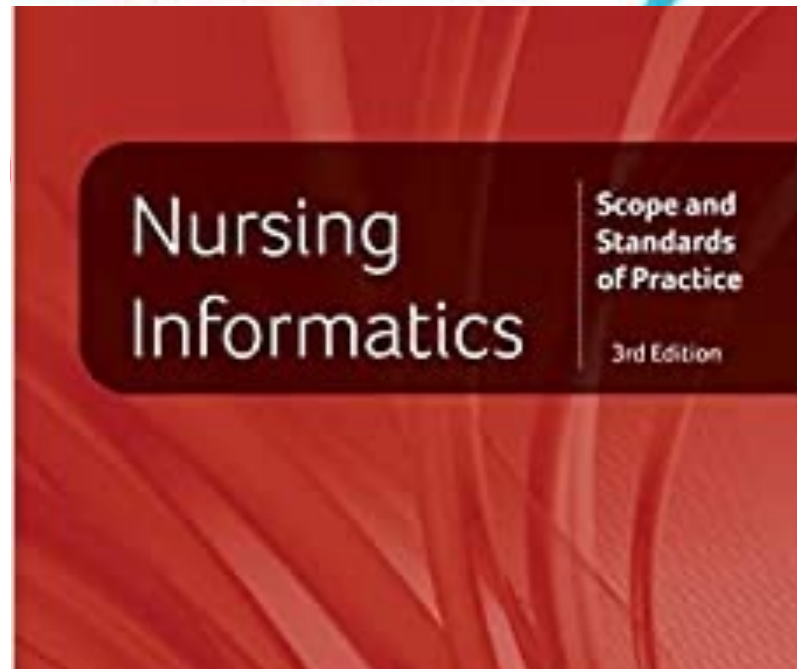


GEORGE W. BUSH  
INSTITUTE



# THE ESSENTIALS:

CORE COMPETENCIES FOR  
PROFESSIONAL NURSING EDUCATION



# NATIONAL INSTITUTE OF NURSING RESEARCH

## 2022-2026 STRATEGIC PLAN

**MISSION:** Lead nursing research to solve pressing health challenges and inform practice and policy—optimizing health and advancing health equity into the future.

### RESEARCH LENSES

#### Health Equity



Reduce and ultimately eliminate the systemic and structural inequities that place some at an unfair, unjust, and avoidable disadvantage in attaining their full health potential.

#### Social Determinants of Health



Identify effective approaches to improve health and quality of life by addressing the conditions in which people are born, live, learn, work, play, and age.

#### Population and Community Health



Address critical health challenges at a macro level that persistently affect groups of people with shared characteristics.

#### Prevention and Health Promotion



Prevent disease and promote health through the continuum of prevention—from primordial to tertiary.

#### Systems and Models of Care



Address clinical, organizational, and policy challenges through new systems and models of care.

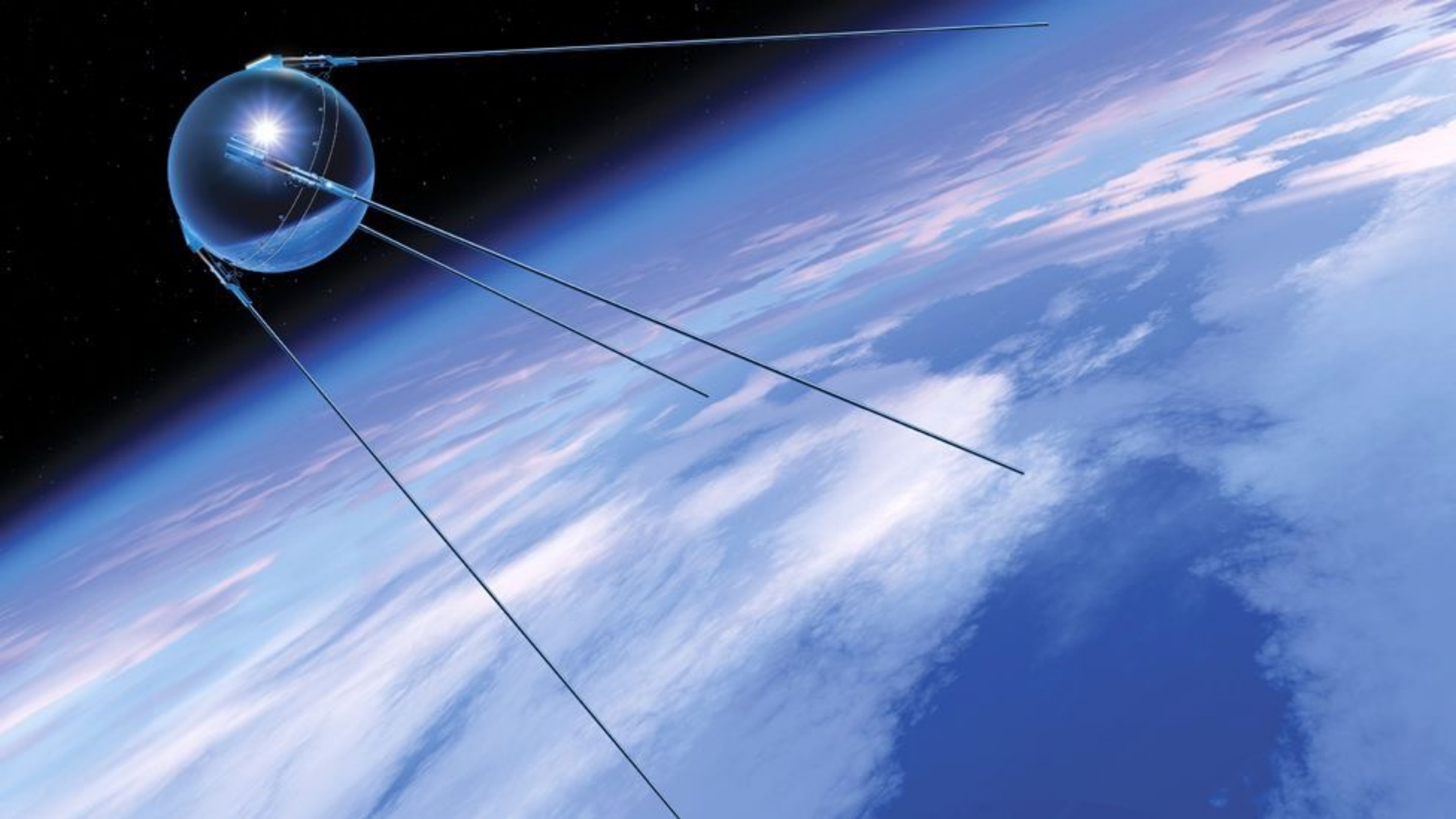


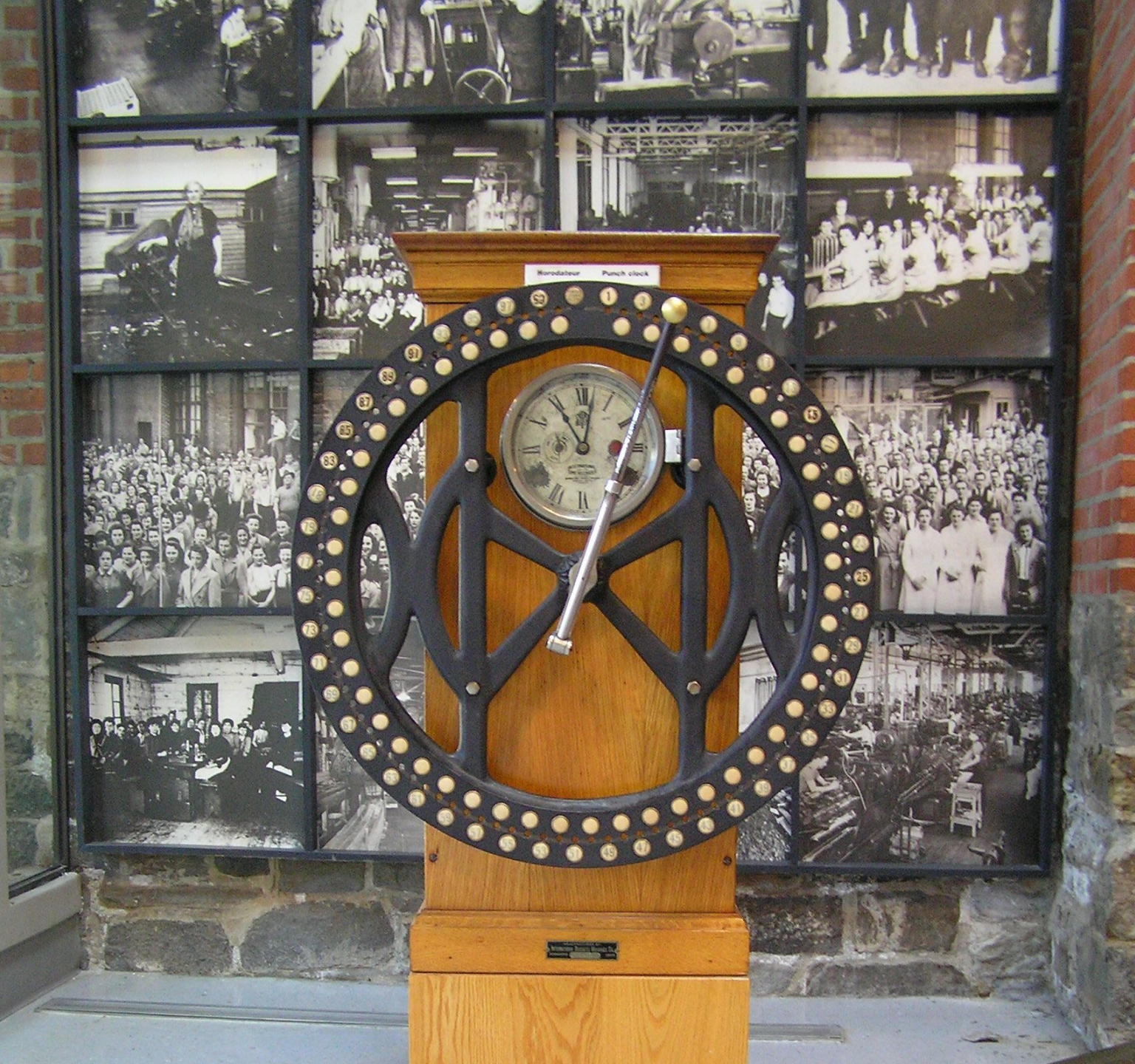
HOW DID WE GET HERE?

WHO IS DRIVING?



1592826





One of the first IBM card listing machines used at Los Alamos. During the war it was used primarily to perform the numerical calculations necessary to design the implosion device.

IBM 7090  
Console

IBM 7090 DATA PROCESSING SYSTEM



Bogdan Jan 12  
-1904-

Dr. H. S. Plummer,  
Jan. 12, '04 to Feb. 13, '04.  
§1192 - §1271.  
and  
Aug. 4, '04 to Aug. 12, '04.  
§1794 - §1815.



Hypothyroidism      Thyroid

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
10010	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10020	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10030	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10040	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10050	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10060	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10070	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10080	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10090	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10110	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10120	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10130	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10140	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10150	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10160	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10170	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10180	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10190	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
10200	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100







PATIENT NAME

acute catarrhal appendicitis (4-9) APT: 23

interventricular septal defect (10) DEF: 8

obese (10) DEF: 8

slipped femoral epiphysis II-14-58 (4) DATE: X58

Appendectomy (10) DEF: 8

(10) FIELD:

(17-18) SECT:

(19) MISC. INDEX:

10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----





MEDICAL EDUCATION  
IN THE  
UNITED STATES AND CANADA

A REPORT TO  
THE CARNEGIE FOUNDATION  
FOR THE ADVANCEMENT OF TEACHING

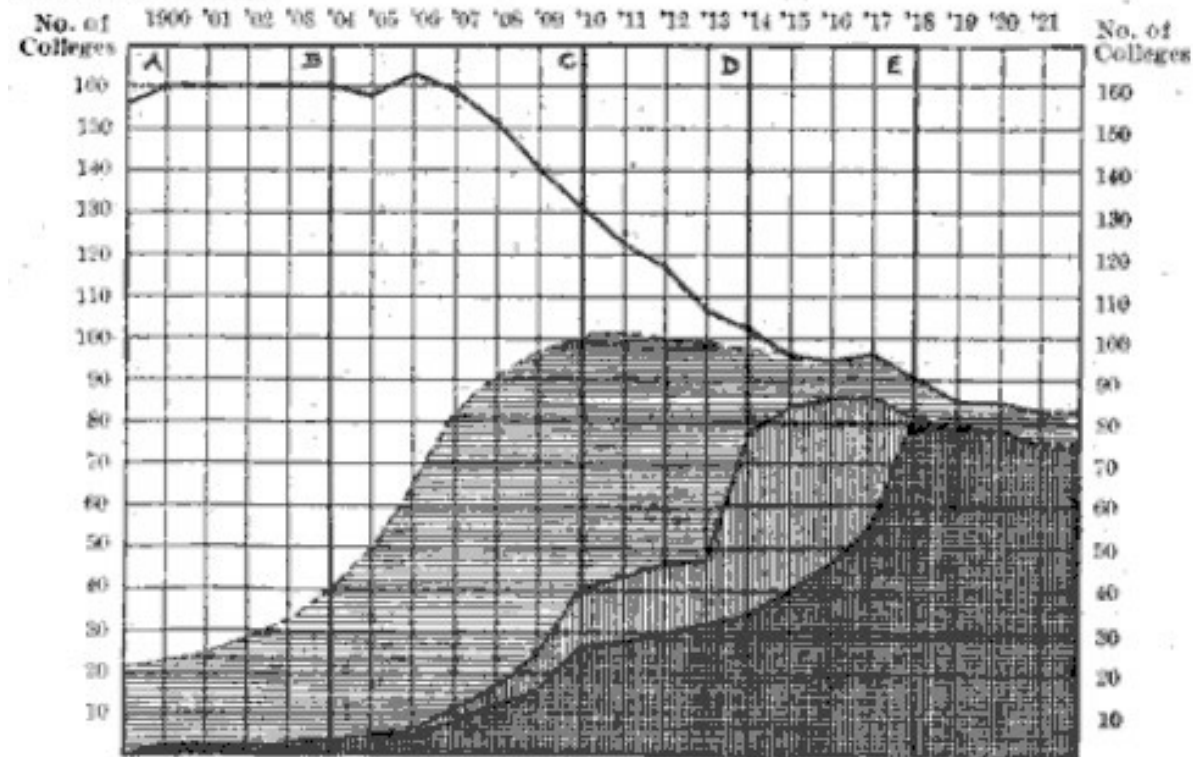
BY  
ABRAHAM FLEXNER

WITH AN INTRODUCTION BY  
HENRY S. PRITCHETT  
PRESIDENT OF THE FOUNDATION

## CHART 1.—FEWER BUT BETTER MEDICAL SCHOOLS

Although the total number of medical schools has been reduced, the number of those holding reasonably high entrance requirements has been greatly increased.

The total number of medical colleges each year is shown by the heavy descending line at the top. The light horizontal shading shows those which actually required a four-year high school education for admission; the vertical shading, those which required one year of collegiate work, and the heavy shading, those which required two or more years of collegiate work for admission.



	1900	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21	'22		
Colleges	160	160	160	160	158	153	148	135	116	80	72	66	60	56	54	52	50	48	47	46	45	44	43	42	
High Sch.	158	158	158	157	156	153	148	135	116	80	72	66	60	56	54	52	50	48	47	46	45	44	43	42	
1 Yr. Coll.	..	..	..	..	..	1	2	5	8	12	14	16	18	24	30	38	44	50	56	60	66	72	77	82	
2 Yrs. Coll.	2	2	2	3	4	5	5	9	11	16	27	28	30	31	34	40	47	56	60	66	72	79	79	76	75

Five epochs, or stages, in the campaign for improvement are indicated in the above chart. In 1900 (A) the Journal of the American Medical Association began collecting and publishing educational statistics. In 1904 (B) the American Medical Association created a permanent committee, the Council on Medical Education. In 1910 (C) the Carnegie Foundation for the Advancement of Teaching published its report on medical education. January first of that year, also, had been designated by the Council as the date when medical schools should put into effect the entrance requirement of one year of collegiate work. This was not made an essential for the Class A rating, however, until (D) Jan. 1, 1914. The entrance requirement of two years of college work was made an essential for the Council's Class A rating (E) Jan. 1, 1918.

<https://deansforimpa ct.org/the-flexner-scale-problem/>



“a communist and feminist plot”



Beyond Florence

## Constructing the Modern American Midwife: White Supremacy and White Feminism Collide

By P. MIMI NILES, and MICHELLE DREW • October 22, 2020

<https://nursingcliclo.org/2020/10/22/constructing-the-modern-american-midwife-white-supremacy-and-white-feminism-collide/>

NOW  
LESS THAN  $\frac{1}{3}$   
ARE EVEN  
PARTLY  
PROTECTED

SICKNESS  
PHYSICAL HANDICAPS  
UNNECESSARY DEATHS

THIS PLAN  
WOULD PROVIDE  
BROAD PROTECTION  
FOR 85-90%  
OF AMERICA'S  
POPULATION

VOLUNTARY  
INSURANCE PLANS

THE NATIONAL HEALTH BILL  
WILL PROVIDE PROTECTION FOR  
THOSE WHO ARE NOT COVERED BY  
VOLUNTARY PLANS

NATIONAL HEALTH BILL

THE NATIONAL HEALTH BILL  
WILL PROVIDE PROTECTION FOR  
THOSE WHO ARE NOT COVERED BY  
VOLUNTARY PLANS

Clare

Eastern Outlook, 00

**“an incitement to revolution”**

Support the National Health Act (S. 1006)





sioningtheamericandream.com



**AMERICA UNDER COMMUNISM!**

Five Periods in Development of Medical Informatics

---

**ACTA INFORM MED. 2014 Feb; 22(1): 44-48**

Published online: 25/01/2014

Published print: 02/2014

**doi: 10.5455/aim.2014.22.44-48**

Received: 15 December 2013 • Accepted: 04 January 2014

© AVICENA 2014

# Five Periods in Development of Medical Informatics

**Izet Masic**

Faculty of medicine, University of Sarajevo, Bosnia and Herzegovina

Corresponding author: Izet Masic, Medical Faculty University of Sarajevo, Cekalusa 90, 71000 Sarajevo; E-mail: imasic@lol.ba

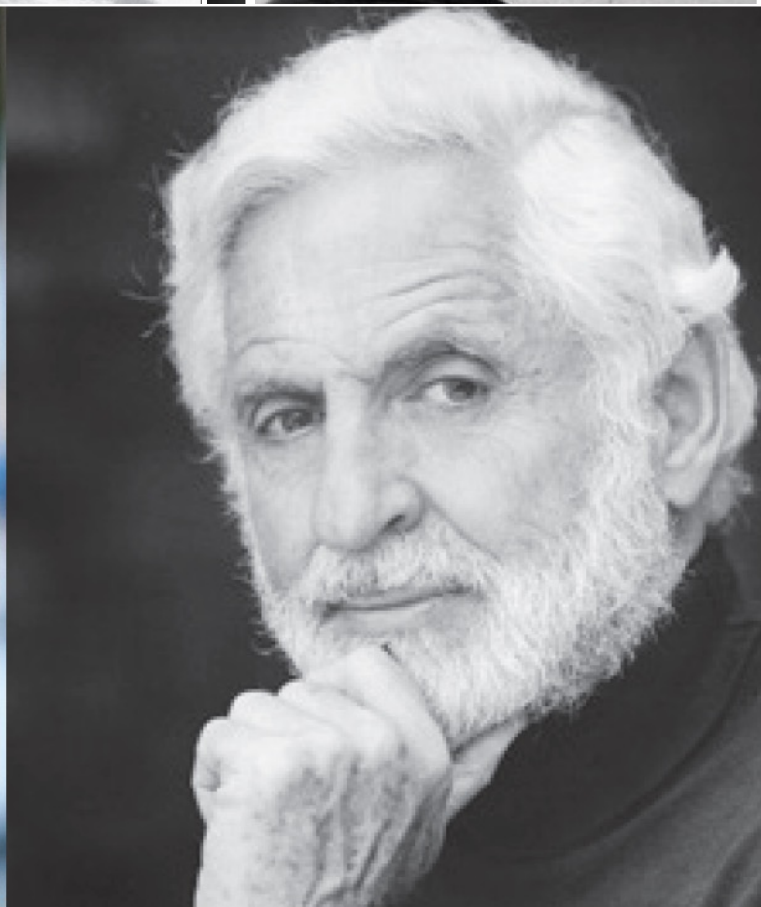


Figure 5. Casimir A. Kulikowski (1944-), Klaus Peter Adlassnig (1950-), Carl Djerassi (1923-)

Figure 6. Robert C. Evers (1929-)

Figure 7. Moll

Figure 4. Eugene Garfield (1925-), Edward Shortliffe (1947 - ), Bruce Buchanan (1935-)

s



JAN 1, 1980

## **SISTER IRENE KRAUS, FIRST WOMAN CHAIR**

Sr. Irene, a Daughters of Charity nun and then president of Providence Hospital in Washington, D.C., became the AHA's first woman elected officer. She was followed by Carolyn C. Roberts; Carolyn Boone Lewis; Mary Roch Rocklage, RSM; Teri G. Fontenot; and Nancy Howell Agee.

OPEN



## A Seat at the Table: An Examination of Hospital Governing Board Diversity, 2011–2021

*Geoffrey A. Silvera, PhD, Department of Health Services Administration, University of Alabama at Birmingham, Birmingham, Alabama; Cathleen O. Erwin, PhD, Health Services Administration Program, Auburn University, Auburn, Alabama; and Andrew N. Garman, PsyD, Department of Health Systems Management, Rush University, Chicago, Illinois*

### SUMMARY

**Goal:** Board diversity is increasingly important for hospitals and healthcare systems, with national attention focused on eliminating health disparities and improving health equity. Yet, it remains a challenge despite concerted efforts by leading professional associations (e.g., American College of Healthcare Executives) to galvanize their constituents around the importance of the issue.

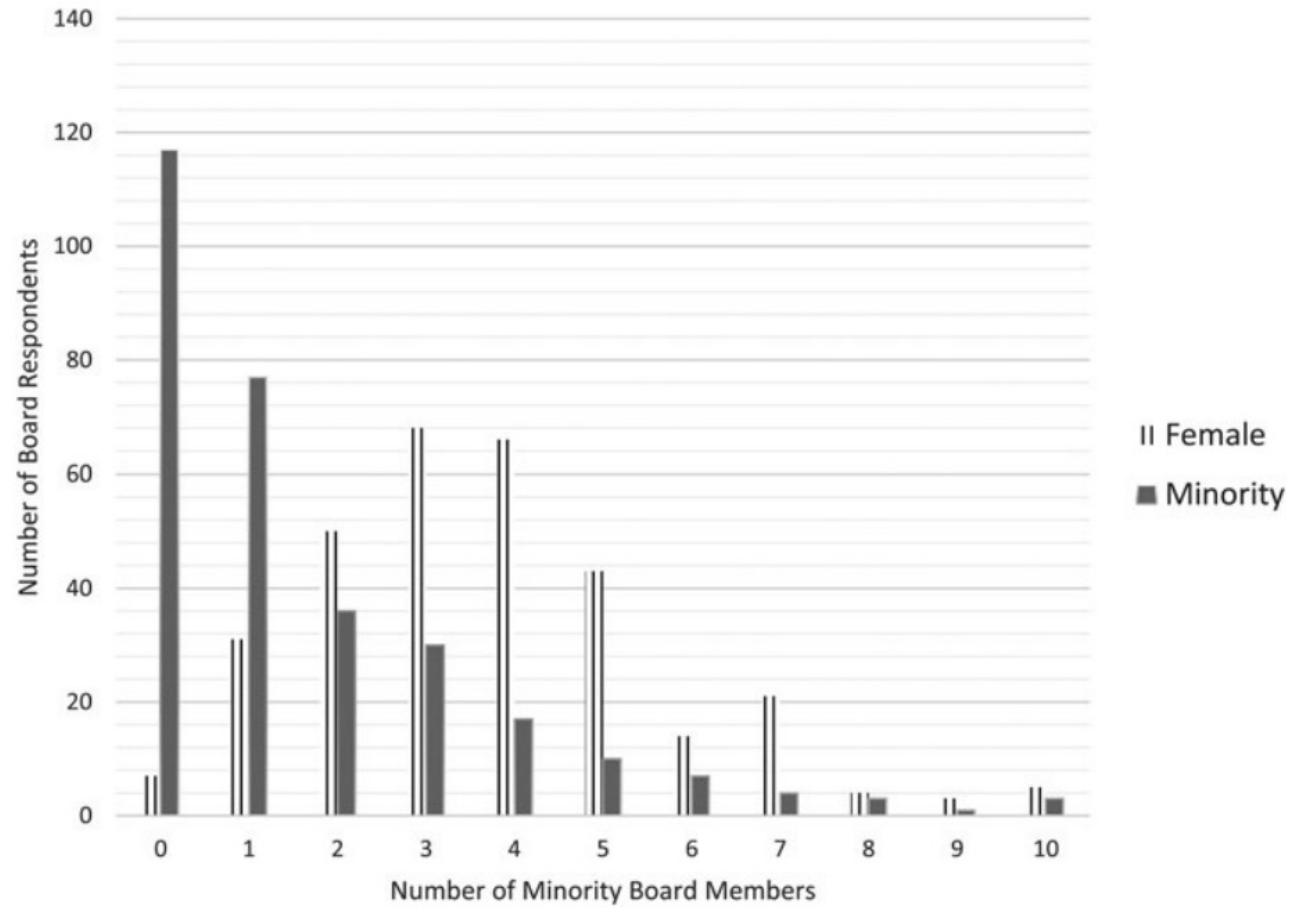
**Methods:** This study used survey data from The Governance Institute to explore the ethnoracial and gender diversity of hospital boards spanning 2011 through 2021.

**Principal Findings:** The results showed modest gains in the mean number of female board members, although a small proportion of hospital boards still have no female representation. There was little change in the number of boards with ethnic minority representation until an uptick in 2021, likely in direct response to high-profile racial incidents and protests.

**Practical Applications:** Intentional and sustained efforts are necessary to increase diversity and create a culture of inclusion that fosters meaningful engagement of diverse board members.

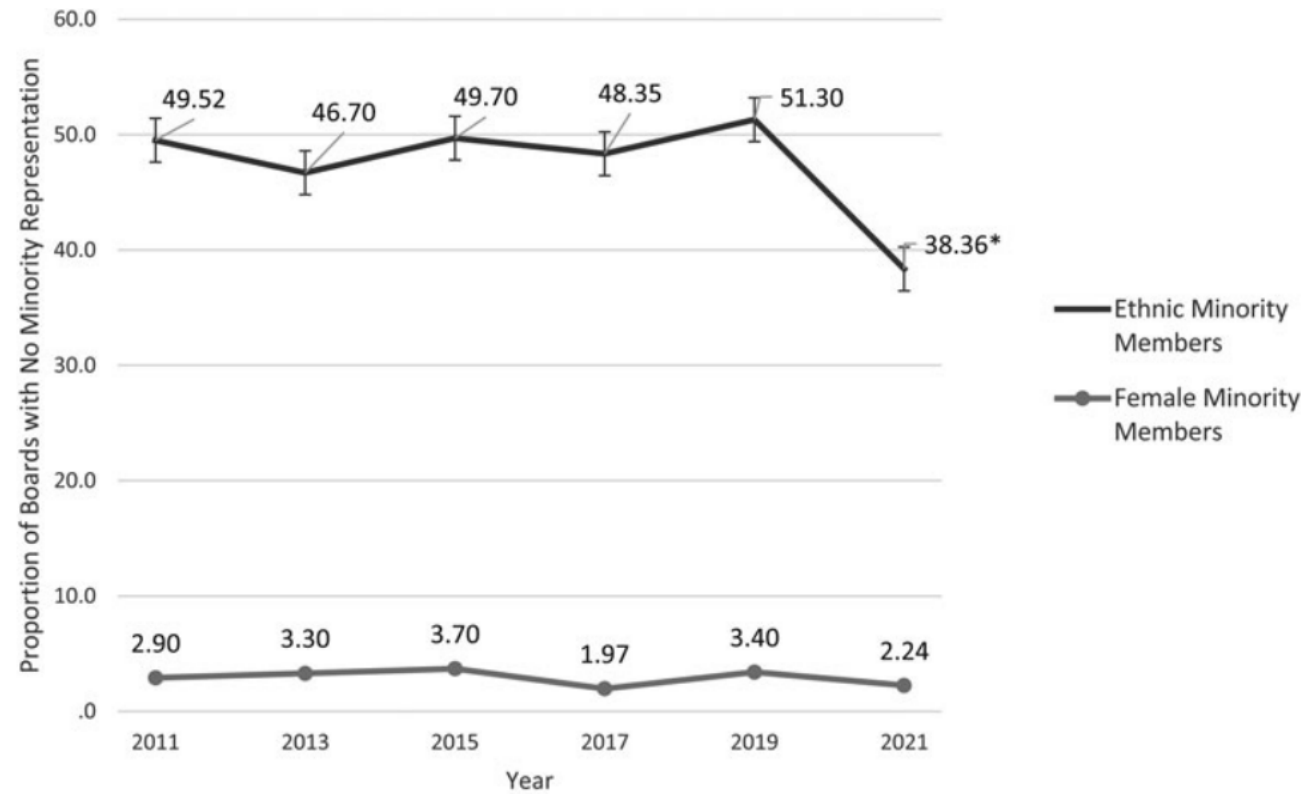
**FIGURE 1**

*How Many Female or Ethnic Minority Board Members Do You Have (2021)?*



**FIGURE 2**

*Proportion of Hospital Boards Without Diverse Membership (2011–2021)*



\* $p \leq .05$ .

OPINION

# Op-Ed: Silicon Valley’s huge diversity problem holds tech back



The percentage of Hispanic/Latinx employees in Silicon Valley remains absurdly low. Just [1.8%](#) of Google’s global tech workforce identifies as female and Hispanic/Latinx. (Mohssen Assanimoghaddam / Getty Images)

BY ADRIANA GASCOIGNE

MARCH 7, 2022 3:01 AM PT

**SUBSCRIBERS ARE READING** >

FOR SUBSCRIBERS

'We're fighting for survival': Writers on the picket line talk pay, family and how the strike is hitting home

Barack and Michelle Obama stir buzz at daughter Sasha's USC graduation

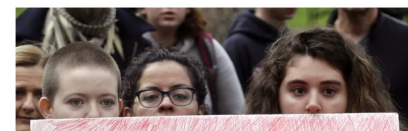
Man killed in Marina del Rey road rage shooting came to California with a dream

Plaschke: I was wrong: These Lakers can win an NBA championship

FOR SUBSCRIBERS

14 things to do in Los Olivos, the magical country town filled with wine and lavender blooms

**OPINION** >





# Minorities Are Missing In Key Healthcare Roles

At its core, healthcare is meant to serve all people, yet its workforce doesn't accurately represent those it's meant to serve. In biotech and biopharma, African Americans represent only 6% of the workforce, Asian employees represent 21%, Hispanic/Latinx employees 7% and Native American employees are less than 1%. This lack of diversity is amplified at the C-suite level, where people of color make up only 24% of executive teams and 28% of CEOs. Minority entrepreneurs also face an uphill battle when it comes to funding, with roughly only 1% of venture capital going to Black-owned startups, according to a 2021 report by Crunchbase.

<https://www.forbes.com/sites/forbesbusinesscouncil/2022/12/30/biotech-needs-to-bring-more-diversity-to-the-table/?sh=7b00a95d18a0>

NETWORKS OF POWER



<https://bit.ly/41IkBeV>

WHAT WE PAY ATTENTION TO

WHAT WE MEASURE

WHAT WE VALUE

DATA ARE USED  
TO TELL STORIES

STORIES SHAPE WORLDS

DATA SCIENCE IS A  
WORLD-MAKING PROCESS

WHAT WORLDS DO WE  
WANT TO CREATE?

**HOW WE  
GOT  
HERE?**

**NEW  
FUTURES?**



**WE  
ARE  
HERE**

**STATUS  
QUO**

**NEW  
FUTURES?**

63.85



“If the only tool you have is a hammer, it is tempting to treat everything as if it were a nail.”

-Abraham Maslow



## How Money Motivates Men

FOR MANY corporations, payroll represents the major cost of doing business. More than 50 per cent of our gross national product is paid each year to employees for their time and effort. And yet the expenditure of this vast sum of money, presumably to motivate men, has been subjected to surprisingly little research, and to even less theoretical discussion. Those studies that have been made of compensation are generally of the survey variety; they emphasize *what* is being done, not *why* it is being done, or what *should* be done. How to get the most out of each payroll dollar is seldom studied.

Modern management is deeply concerned with the motivational impact of financial incentives. It no longer trusts the attitude of the old-line foreman who told me, "But money does work. Just put an extra dollar in that guy's pay check—or take the dollar away—and you'll see what effect it has." In too many com-

panies—companies with high wages, profit sharing, elaborate benefit programs, and incentive systems—money has not worked. Consequently, responsible managers are asking:

Is our wage and salary level adequate? And what determines an "adequate" level?

How about our sales bonus—what effect does it have?

Is our management incentive plan paying off?

What is the value of a stock option plan?

Will profit sharing work for us?

Just how motivational is our benefit program?

And how about our entire compensation package? Does it have an optimum balance of base salary, incentive payments, protective provisions, benefit plans, and perquisites?

To tackle questions such as these, one must have a basic understanding of what money means and how it motivates men. With this understanding, a compensation program can be designed so as to achieve maximum motivation at lowest possible cost—in both human

Mr. McDermid is Consulting Psychologist for the firm of Humber, Mundie & McClary, Evanston.

and financial terms. In this way, the needs of employees can best be met and the attainment of corporate objectives best ensured.

### HUMAN MOTIVATION

Traditionally, compensation practices have been based on the classic economic theory that man is a rational animal motivated by the desire to maximize his economic gains. This premise has given rise to the belief that employees can automatically be motivated to produce more by the promise of additional money. As a theory, this economic concept of man has often been decried; its limitations have repeatedly been exposed (for example, even under piecework incentive systems output is often restricted); yet it still forms the basis for most of our compensation practices today.

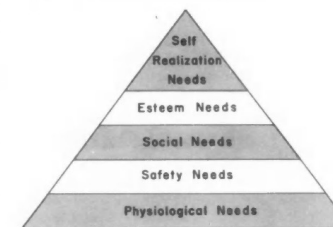
A psychological theory of motivation, first advanced by Maslow,<sup>1</sup> provides better insight into the dynamics underlying human behavior. The essence of this theory is well illustrated in the famous anecdote about Samuel Gompers, for a long time president of the American Federation of Labor. When Gompers was asked, "Just what do the trade-unions want?" he replied, "More!" His answer goes beyond union philosophy; it sums up all human motivation. *Man always wants, and wants more.* As Maslow has phrased it, "Man is a wanting animal."

Two further principles are of basic importance in Maslow's theory. One is that man's wanting depends completely on what he already has. *Satisfied needs do not motivate behavior.* Only needs not yet gratified exert any considerable force in influencing what we do. The other principle is that *needs and wants are arranged in a hierarchy of importance.* As soon as needs on a lower level are fulfilled, those on a higher level emerge and demand

<sup>1</sup> For a more complete presentation of this theory, together with considerations and qualifications that must be omitted here, see A. H. Maslow, *Motivation and Personality* (New York: Harper & Brothers, 1954), especially pp. 80-106.

satisfaction. When man operates at these higher levels, classic economic theory gives a very incomplete picture of human motivation.

The hierarchy of needs is arranged in a pyramid of five levels, from basic physiological drives at the bottom to the desire for self-realization, the highest expression of the human spirit, at the apex. Graphically, these need levels can be arranged thus:

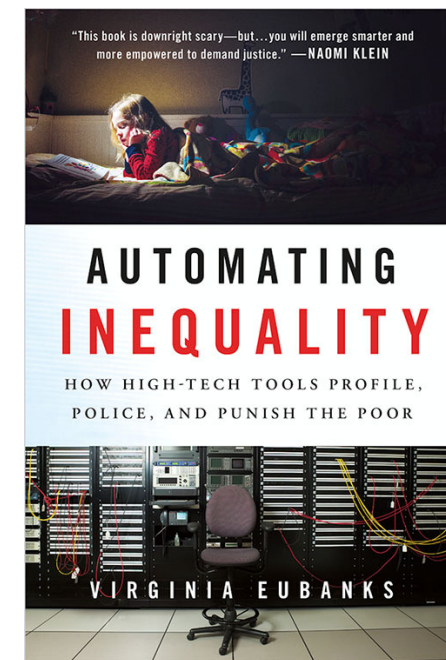
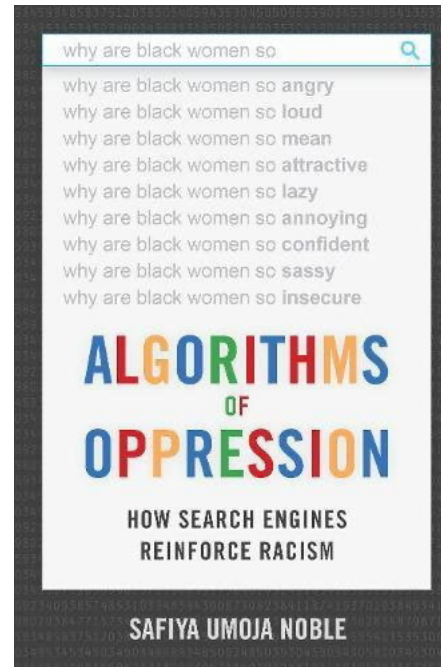
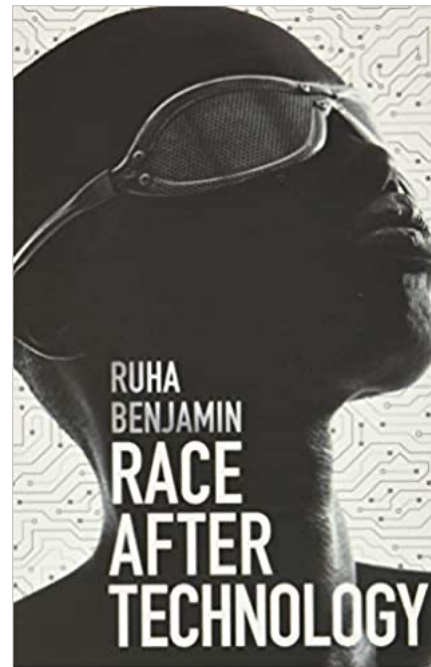
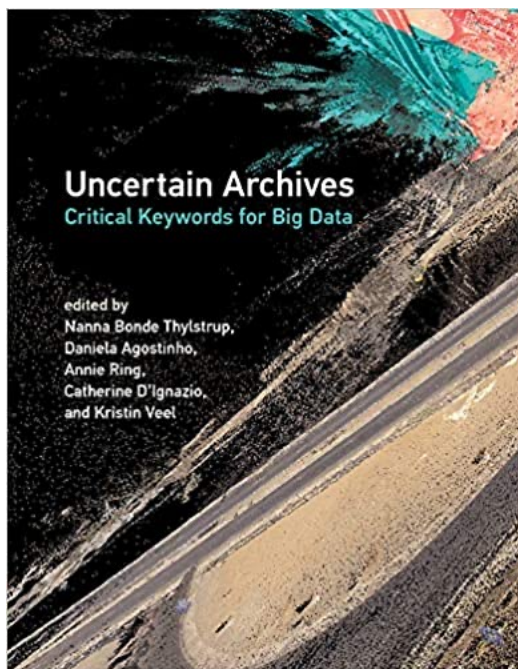
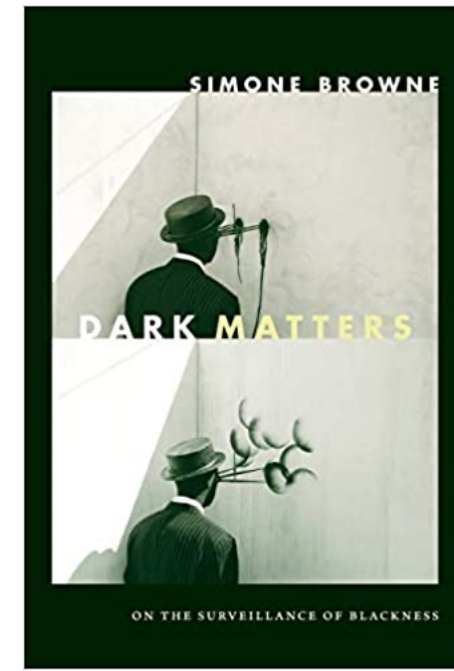
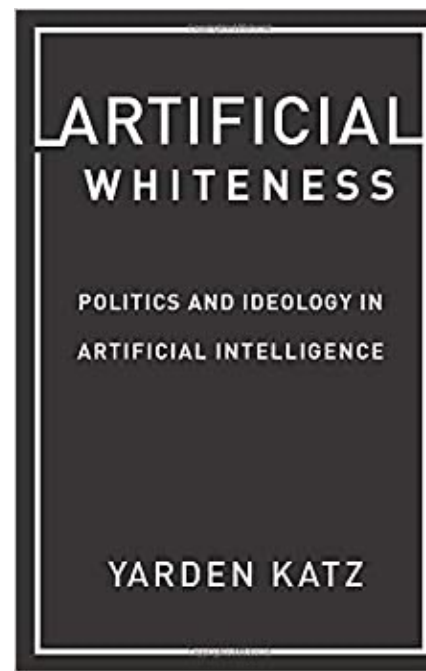
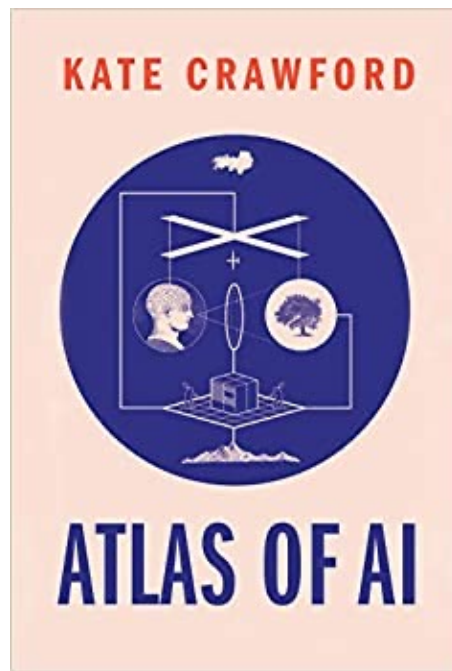
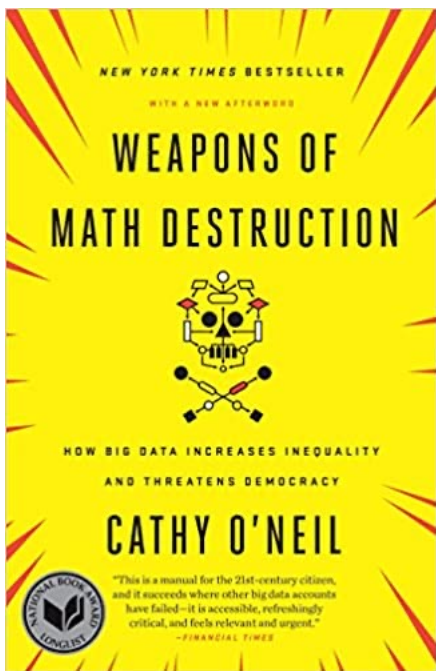


To fill out this diagram, a brief description follows for each need level.

#### Physiological Needs

The physiological needs are the needs for oxygen, food, drink, elimination, sexual satisfaction, rest, activity, and temperature regulation; these are the basic drives of human behavior. If a person is really deprived of any of them (with the possible exception of sexual activity), he will bend every effort to satisfy this need. The starved man thinks only of food, wants only food, perhaps hallucinates about food, and so directs all his behavior to obtain food. Similarly, the drowning man wants only to breathe; an overworked executive yawns for sleep; the consuming public buys air-conditioners during a heat wave. Even the sexual needs, which from the standpoint of survival are comparatively mild, can completely dominate the behaving organism.

Once these needs are satisfied, however, they cease to be important motives for behavior. How many people think about their need for air except when they are deprived of it? Food and drink, sleep and activity needs, at



# Public Interest Technology (PIT) Skills:

---

- Tech Literacy
- Social Literacy
- **Public Interest Strategies**  
(Strategy & Tactics for Co-Liberation)

The logo features the text "PIT" in large, bold, white capital letters, with "@UMASS" in a smaller, bold, white font below it. The background is a dark purple circle containing a blurred image of a group of people walking in front of a building with large windows.

**PIT**  
**@UMASS**

TECH POLICY

# Washington becomes first state to adopt health data protections post-Roe

Gov. Jay Inslee signed a first-of-its-kind bill into law, putting limits on search engines and health trackers ability to collect and sell customers' data



By [Cat Zakrzewski](#)

Updated April 27, 2023 at 6:53 p.m. EDT | Published April 27, 2023 at 1:40 p.m. EDT







[Administration](#)

[Priorities](#)

# BLUEPRINT FOR AN AI BILL OF RIGHTS

MAKING AUTOMATED SYSTEMS WORK FOR  
THE AMERICAN PEOPLE



OSTP



**DATA FOR  
BLACK LIVES**

TOWARDS WHAT GOALS?

WHO DECIDES?



TIRED: HEALTH DISPARITIES

WIRED: HEALTH EQUITY

INSPIRED: HEALTH JUSTICE

HEALTH JUSTICE

# “EQUITABLE REDISTRIBUTION OF POWER AND RESOURCES”

ALANG & BLACKSTOCK, 2023, AMERICAN JOURNAL OF PUBLIC HEALTH

“PROCESSES OF KNOWLEDGE  
PRODUCTION AROUND NEED,  
RESTRUCTURING, AND REDISTRIBUTION  
ARE GROUNDED IN THE EXPERIENCES OF  
POPULATIONS MOST IMPACTED BY  
HEALTH INEQUITIES”

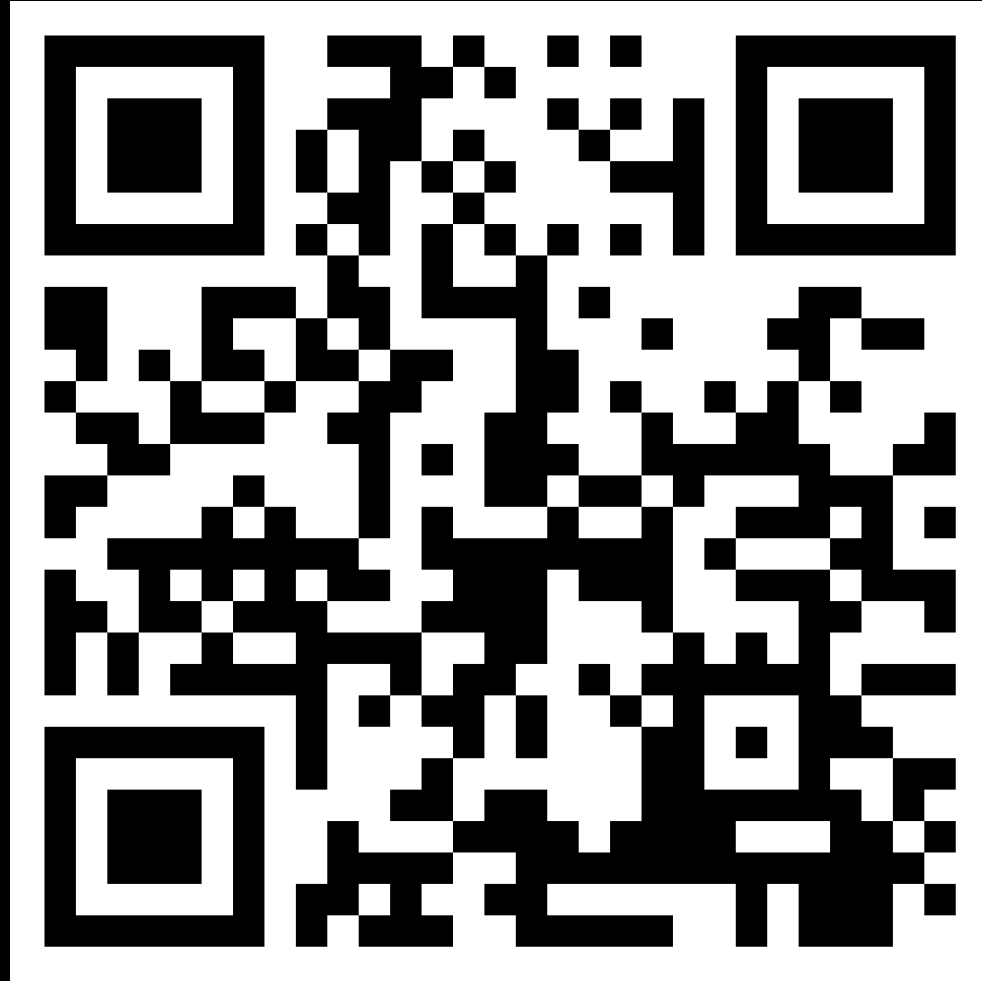
“INTERROGATE SYSTEMS, STRUCTURES;  
SOCIAL, POLITICAL, CULTURAL &  
ECONOMIC INSTITUTIONS, AND  
NETWORKS OF RELATIONSHIPS THAT,  
ALTHOUGH NORMALIZED, CREATE &  
PERPETUATE INEQUITIES IN POWER”

# HEALTH JUSTICE CALLS TO ACTION

- Redistribute resources
- Redistribute power
- Enact legislation that ensures access to resources
- Center experiences of communities most impacted to ensure they have power over institutions
- Evaluate intersecting and multi-dimensional effects of policies across systems



WHAT MIGHT  
HEALTH JUSTICE LOOK LIKE  
WHERE YOU ARE?



<https://bit.ly/454mp4Q>



**HOW WE  
GOT  
HERE?**

**NEW  
FUTURES?**



**WE  
ARE  
HERE**

**STATUS  
QUO**

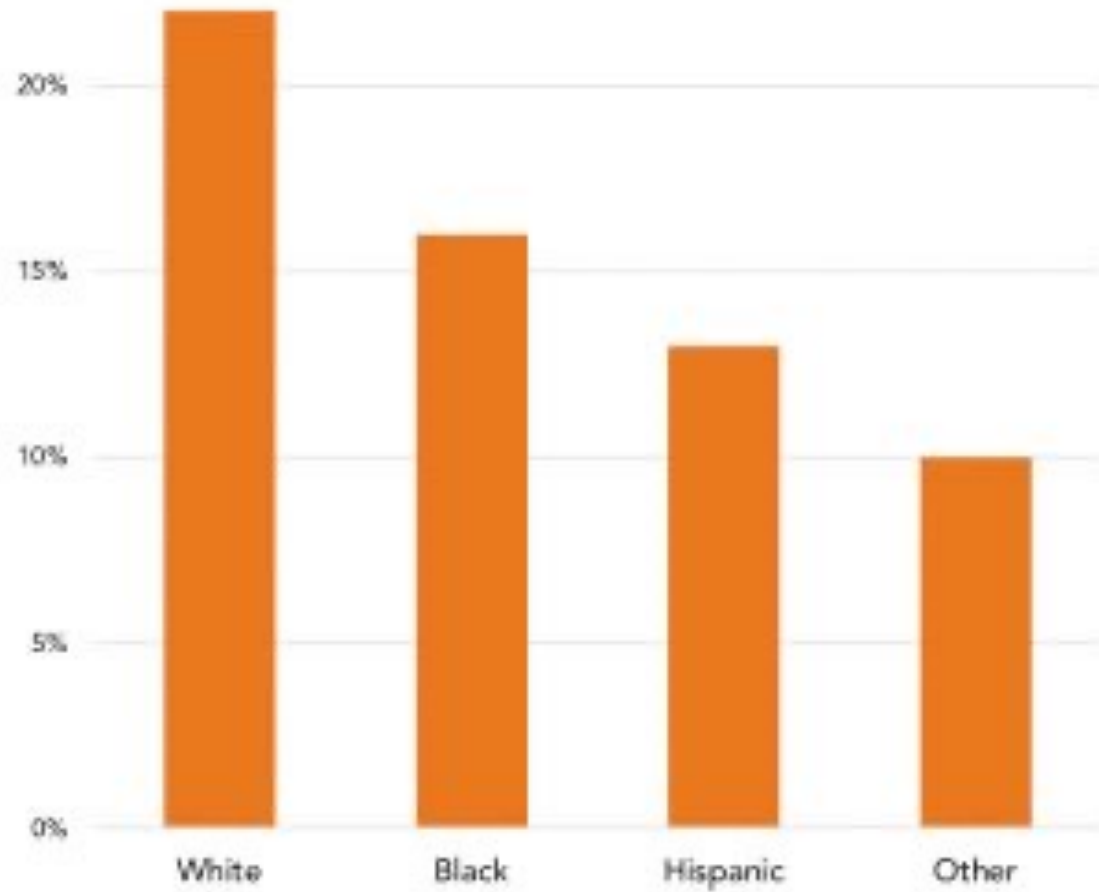
**NEW  
FUTURES?**



SHIFTING POWER  
REQUIRES TELLING  
NEW STORIES

## Mental Health in Jail

Rate of mental health diagnosis of inmates



## Racism in Jail

People of color less likely to get mental health diagnosis

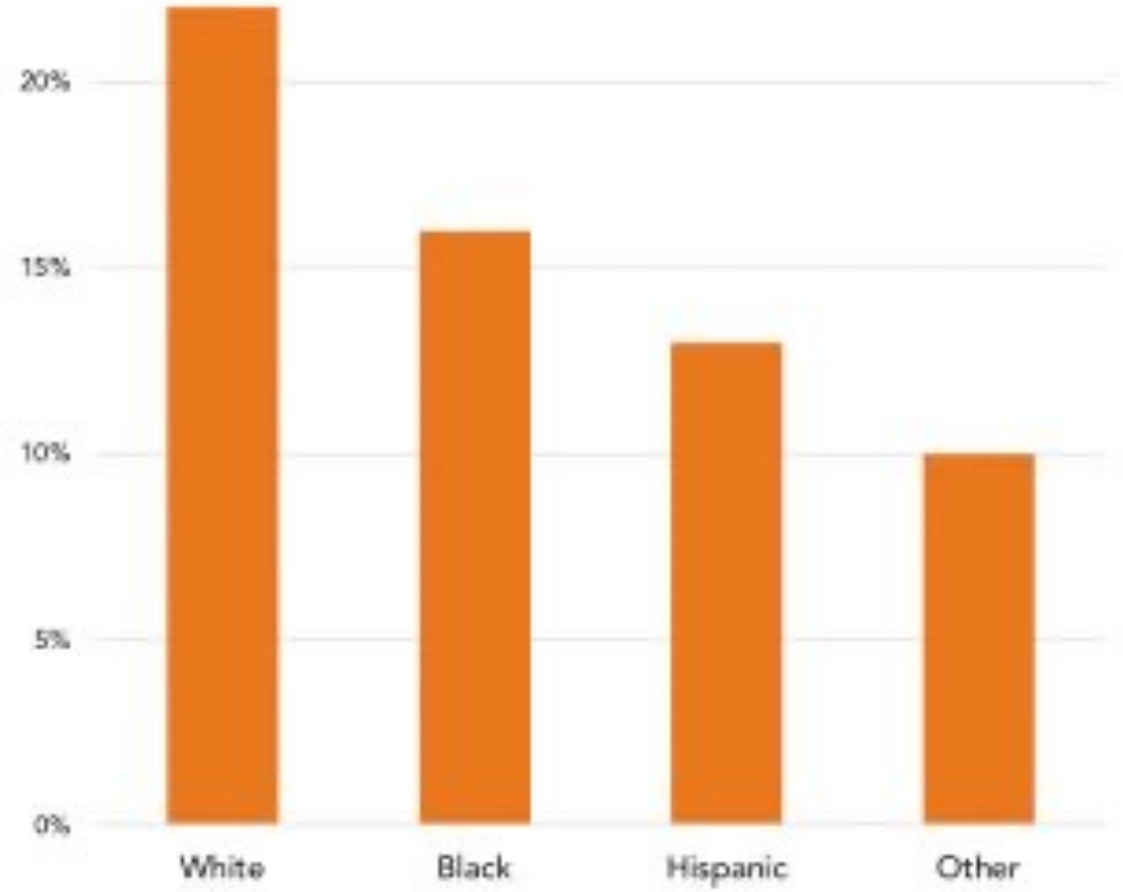


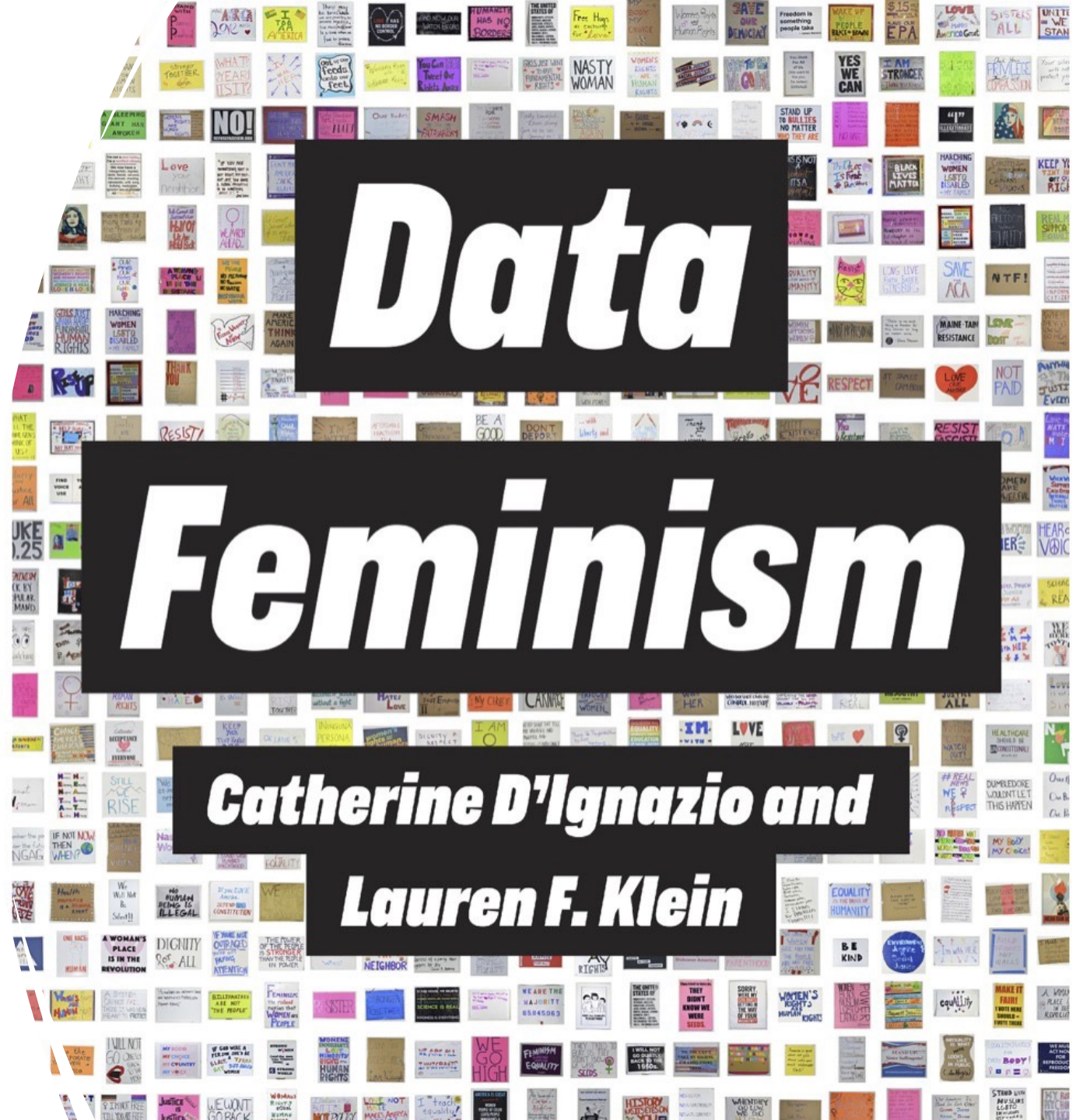
Figure 6.6: Two portrayals of the same data analysis. The data are from a study of people incarcerated for the first time in NYC jails between 2011 and 2013. Graphics by Catherine D'Ignazio. Data from Fatos Kaba et al., "Disparities in Mental Health Referral and Diagnosis in the New York City Jail Mental Health Service."

<https://data-feminism.mitpress.mit.edu/pub/czq9dfs5#nxy7ixj0a10>

NEW STORIES REQUIRE  
NEW DATA AND  
WAYS OF THINKING  
ABOUT DATA

# Principles of Data Feminism

- Examine power.
- Challenge power.
- Elevate emotion and embodiment.
- Rethink binaries and hierarchies.
- Embrace pluralism.
- Consider context.
- Make labor visible.



EXAMINE POWER

SURVEILLANCE

SIMONE BROWNE



DARK MATTERS

ON THE SURVEILLANCE OF BLACKNESS



SOUSVEILLANCE



Photo by —Sandy—, via Flickr,  
licensed under a CC BY-NC-ND license.  
<http://www.flickr.com/photos/fastestsuitintown/2192584891>



Mimi Onuoha, 2018, Still from *The Library of Missing Datasets*

## Harvard Medical School

# RACIAL JUSTICE REPORT CARD

The Racial Justice Report Card (RJRC) is an initiative by White Coats 4 Black Lives (WC4BL). The report card serves not only as an organizing tool for justice-oriented medical students, but also as a set of standards for medical schools aspiring towards transparency and progress in cultivating an anti-racist environment.

METRIC	GRADE & NOTES	
1. URM REPRESENTATION	<b>C</b>	Black, Latinx, and Native American students are underrepresented, and only 6% of full-time and part-time faculty are URM.
2. ANTI-RACISM TRAINING	<b>B</b>	Students have some coursework that discusses racism, but limited exposure to intersectionality, or anti-racism strategies. Faculty do not universally receive training in these topics.
3. URM RECOGNITION	<b>C</b>	Individuals with troubling racist histories are publicly celebrated on the Harvard Medical School campus. Efforts are underway to re-evaluate public artworks and monuments.
4. URM RECRUITMENT	<b>B</b>	Harvard Medical School has a number of recruitment programs directed at URM students, and undocumented students are able to matriculate at Harvard Medical School.
5. URM LEADERSHIP	<b>B</b>	MD curricular decisions incorporate the feedback of students of color, but do not include community members in design or leadership roles.
6. ANTI-RACIST CURRICULUM	<b>B</b>	Basic science coursework includes some discussion of the role of racism in health and disease.
7. DISCRIMINATION REPORTING	<b>B</b>	Multiple procedures exist for reporting mistreatment. There is no anonymous system for reporting in real time and follow-up is at the discretion of the Dean for Medical Education.
8. URM GRADE DISPARITY	<b>C</b>	There is no publicly available information about grade disparities at Harvard.
9. URM SUPPORT/RESOURCES	<b>B</b>	The Office Recruitment and Multicultural Affairs provides some support to URM students. There are no designated physical spaces or mental health services for URM students.
10. CAMPUS POLICING	<b>C</b>	There is a campus police force, and there is no public evidence of efforts to address racism in policing or develop alternative safety structures.
11. MARGINALIZED PATIENT PROTECTION	<b>C</b>	Harvard medical students providing care to marginalized patients through the Crimson Care Collaborative have more autonomy than they do in other clinical settings.
12. EQUAL ACCESS FOR ALL PATIENTS	<b>C</b>	Patients of color and patients with Medicaid insurance are underrepresented at many Harvard teaching hospitals.
13. IMMIGRANT PATIENT PROTECTION	<b>B</b>	Most Harvard teaching hospitals have policies protecting undocumented patients, but these policies are not always public or effectively advertised to patients.
14. STAFF COMPENSATION & INSURANCE	<b>C</b>	Most Harvard teaching hospitals have a minimum wage above the Boston living wage, but it is unclear whether all full-time staff have access to comprehensive health insurance.
15. ANTI-RACISM IRB POLICIES	<b>B</b>	IRB policies include some protections for people of color. They do not, however, require researchers to precisely define their use of race.
<b>OVERALL GRADE:</b>	<b>B-</b>	Harvard Medical School must take additional measures to promote racial justice in student diversity, policing, and access to care.

<https://whitecoats4blacklives.org/wp-content/uploads/2018/04/WC4BL-Racial-Justice-Report-Card-2018-Full-Report-2.pdf>

\*A full report on this institution (i.e. links to sources, student anecdotes, and institution's responses), other institutions, and details on the RJRC initiative can be found on [whitecoats4blacklives.org](http://whitecoats4blacklives.org).



“advocating for each other”

“as a close-knit team that has each other’s backs”



### Advocating for each other

August 2022

Dear Duke Health Nurses:

You know it. We know it. These are hard times to be a nurse.

And at times like these, it helps to remember our purpose. We chose Duke Health to practice nursing because we wanted to deliver excellent care in a world-class setting — and we wanted to do that together, as a close-knit team that has each other’s backs. We also wanted to control our own destinies, because as some of the nation’s best nurses, we know what’s best for us, and for our patients.

At a time when labor unions seek to enter our environment, we still believe in this vision. We believe in advocating for one another, solving our problems together, and keeping our own house. We did that recently by fighting for historic pay raises for our nursing family in the context of a nationally and locally changing health care environment. Nurses across Duke are partnering with colleagues to address workplace violence, staffing shortages, improve culture and take care of our well-being. We are standing strong in challenging times, and we are making change.

In their efforts to grow membership, some labor unions employ tactics that play on fears, provide incomplete or misleading information, and create a wedge between leadership and nurses—and between you and your colleagues. That type of division is counter to the spirit of Duke Nursing.

It is your right to choose to support a union, and just as importantly, it is your right to choose not to support a labor union. You also have the right to be fully informed before making any choice, and the right to express your views against the union, if that is your belief.

This is the discussion we now need to have. Let’s face the topic together by talking openly and listening to one another. As leaders, we commit to creating forums to answer your questions, and to work together with you to move Duke nursing forward.

A STAT INVESTIGATION

# Epic's AI algorithms, shielded from scrutiny by a corporate firewall, are delivering inaccurate information on seriously ill patients



By [Casey Ross](#) July 26, 2021



<https://www.statnews.com/2021/07/26/epic-hospital-algorithms-sepsis-investigation/>

MAKE LABOR VISIBLE



# Labor is Gendered

(And classed, racialized...)

---

Tech is 'Male-coded':

logic, decision-making, rational thinking

Care work is 'Female-coded':

repetitive, mechanical, low-skill/wage



## “Smart Hospital Rooms” Powered by Alexa are Being Introduced in Many Healthcare Facilities

"a game changer"



By: [Chaunie Brusie](#) BSN, RN

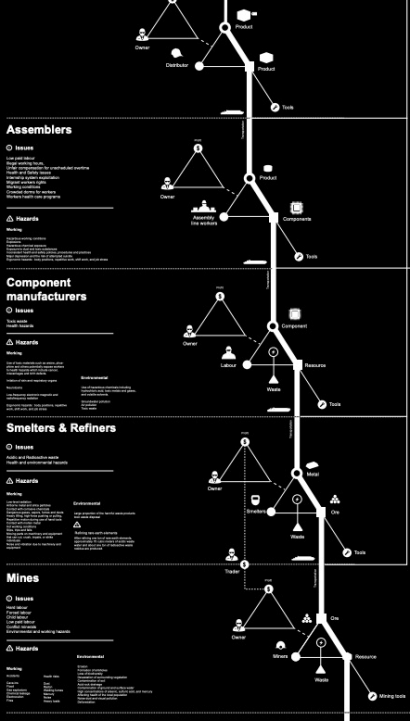


<https://nurse.org/articles/Alexa-smart-hospital-rooms/>

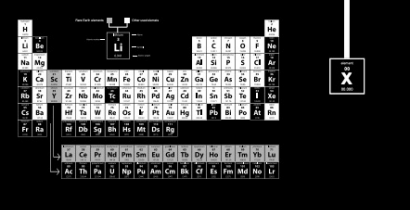
Income distribution



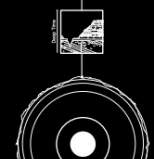
Distributors



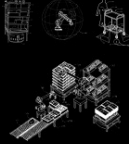
Elements



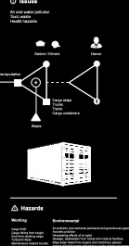
Geological process



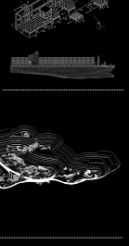
Amazon storage systems



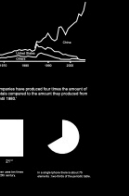
Transportation



Smelters & Refiners



Rare Earth Elements (REE) application



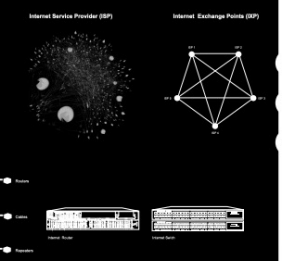
Quantification of nature



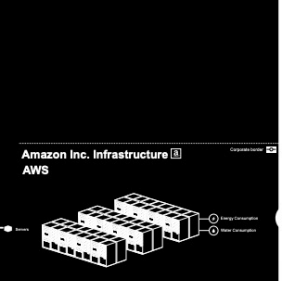
Domestic infrastructure



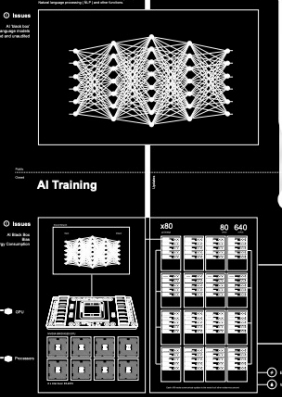
Internet infrastructure



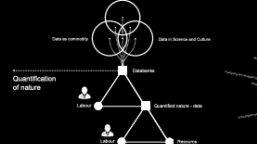
Internet Platforms & Services



AI Training



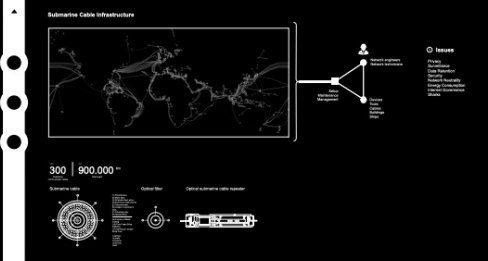
Data exploitation



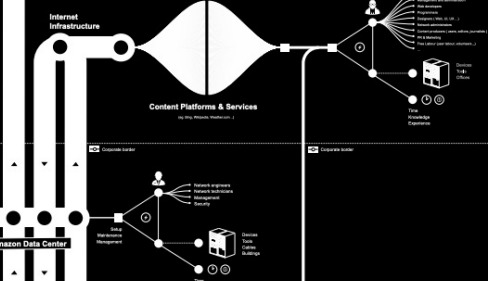
Submarine Cable Infrastructure



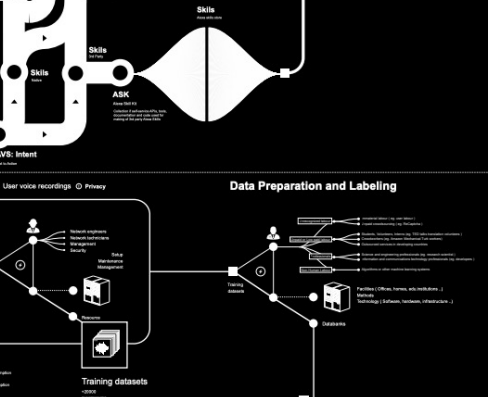
Content Platforms & Services



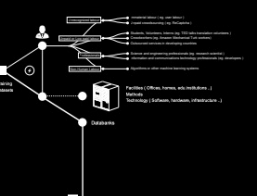
Skills



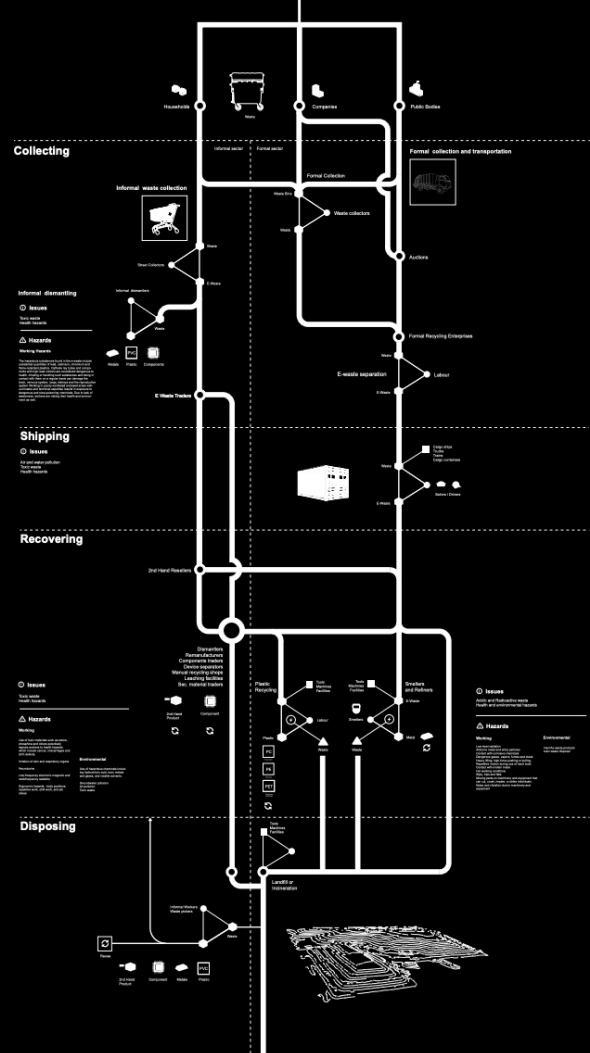
Skills



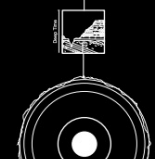
Data Preparation and Labeling

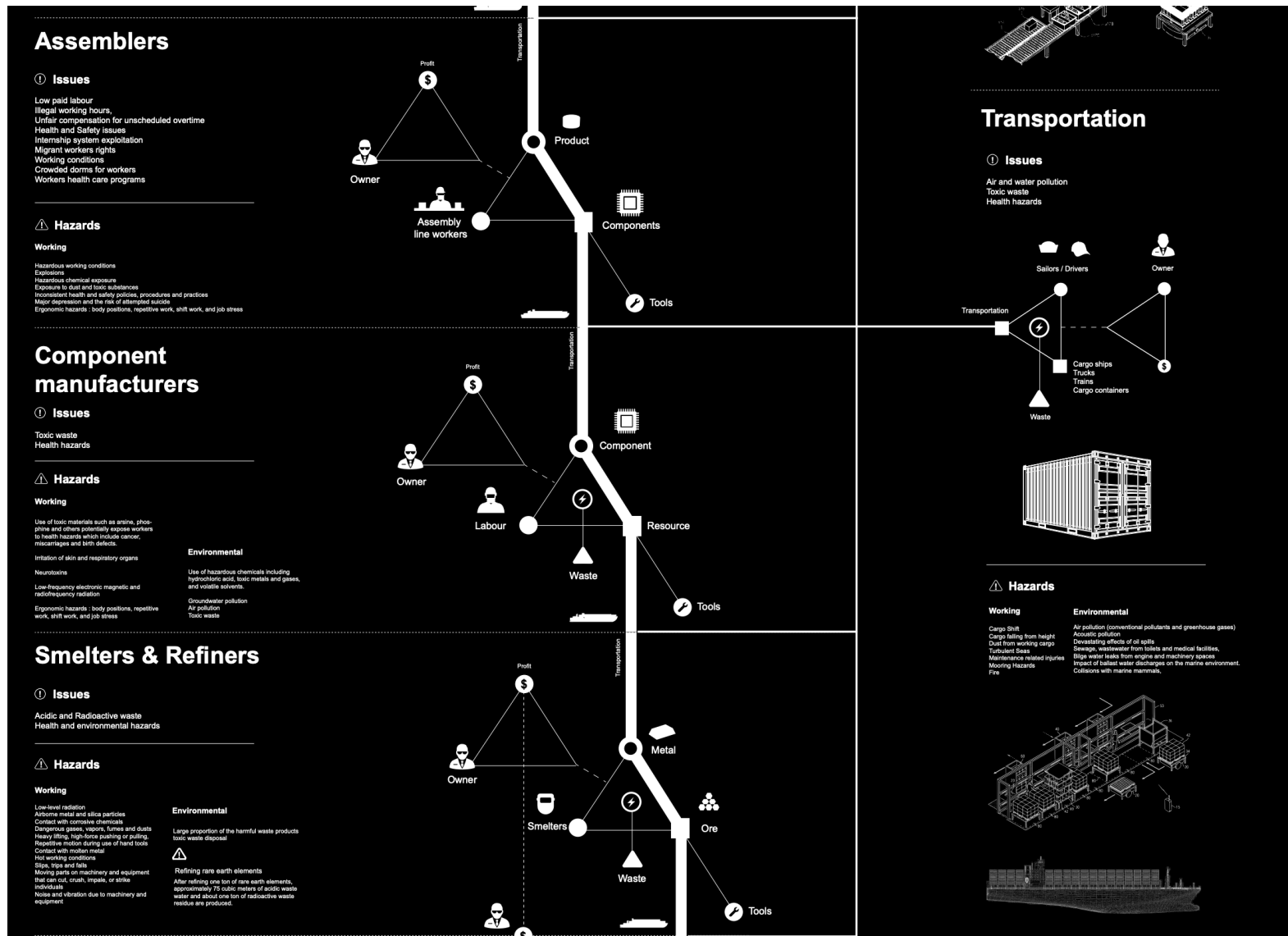


Abandoned devices



Geological process





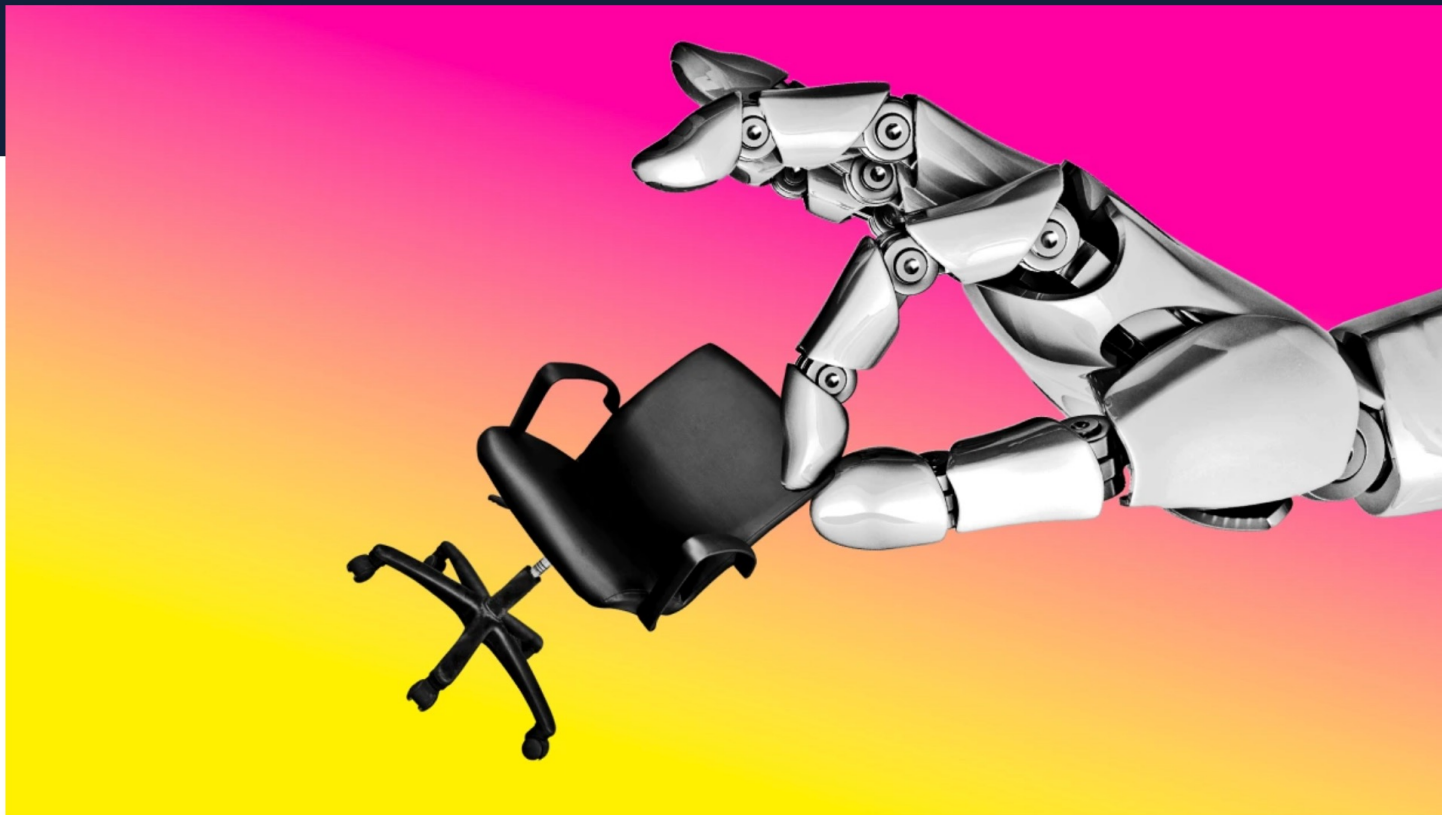
Kate Crawford and Vladan Joler, "Anatomy of an AI System: The Amazon Echo As An Anatomical Map of Human Labor, Data and Planetary Resources," *AI Now Institute and Share Lab*, (September 7, 2018) <https://anatomyof.ai>



INTELLIGENCE

# ChatGPT is powered by these contractors making \$15 an hour

Two OpenAI contractors spoke to NBC News about their work training the system behind ChatGPT.



"You can design all the neural networks you want, you can get all the researchers involved you want, but without labelers, you have no ChatGPT. You have nothing"

— The contractors don't receive benefits, but are essential to training OpenAI's ChatGPT. Adam Maida for NBC News

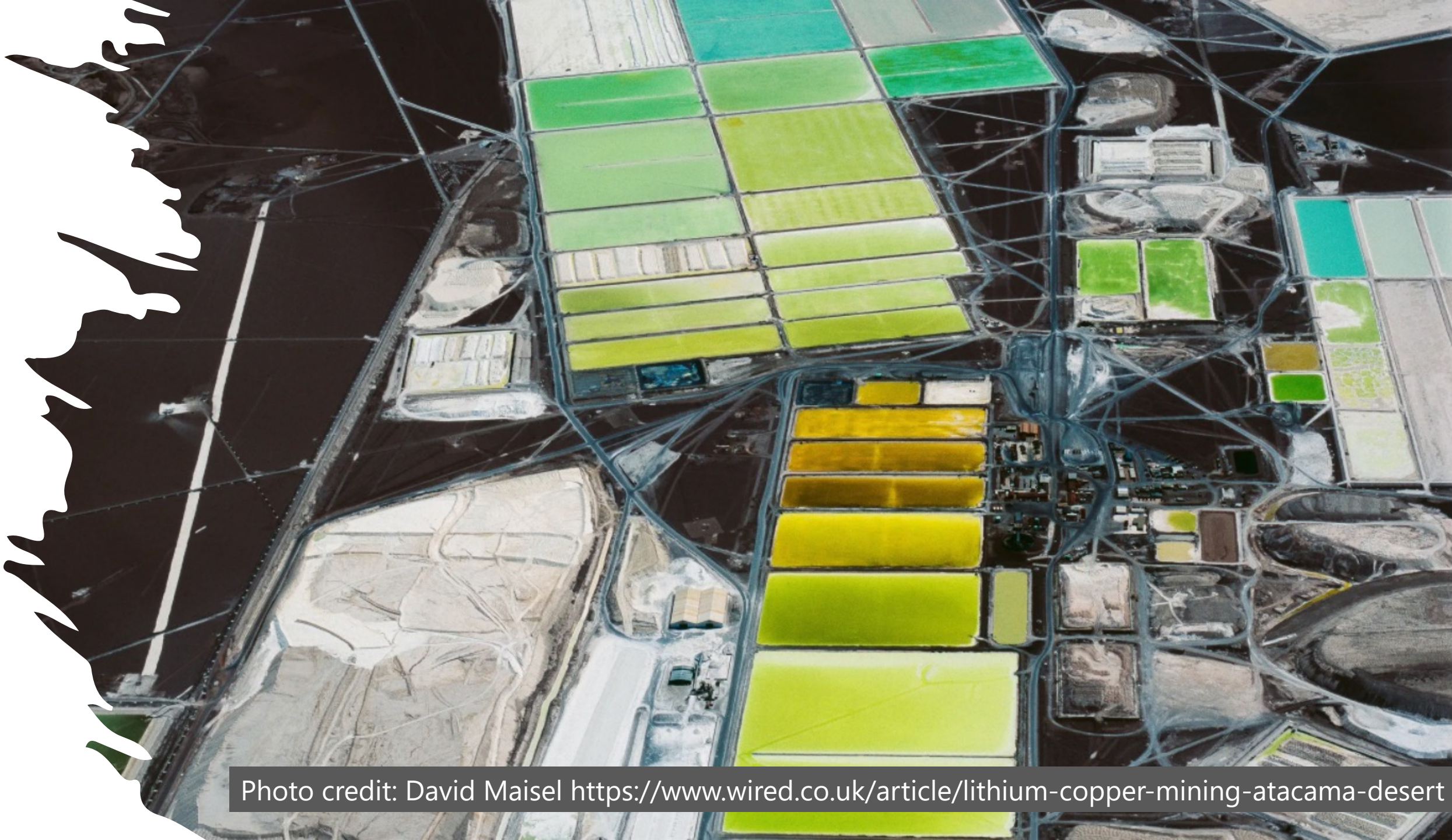


Photo credit: David Maisel <https://www.wired.co.uk/article/lithium-copper-mining-atacama-desert>



Photo credit: Gabriella Angotti-Jones



Energy Expenditures  
Associated with Training One  
Large Language Model

626,000 lbs of CO<sub>2</sub> =

5X lifetime emissions of an  
average car (including the  
car's manufacture)

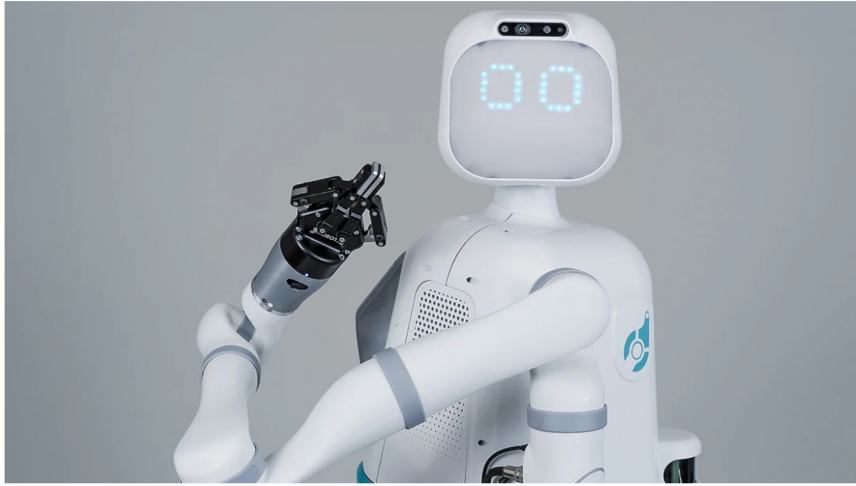
Strubell, E., Ganesh, A., & McCallum, A. (2020). Energy and Policy Considerations for Modern Deep Learning Research. *Proceedings of the AAAI Conference on Artificial Intelligence*, 34 (09), 13693-13696.  
<https://doi.org/10.1609/aaai.v34i09.7123>



07-08-19

## A hospital introduced a robot to help nurses. They didn't expect it to be so popular

Moxi is a robot designed to make nurses' lives easier. But the friendly bot is turning out to be a welcome presence for some patients, too.



THE NEWS WITH SHEPARD SMITH

# ROBOT NURSE ASSISTANT BEING USED TO EASE WORKER BURNOUT





RESEARCH

Open Access

# “More” work for nurses: the ironies of eHealth



Susanne Frennert<sup>1\*</sup>, Lena Petersson<sup>2</sup> and Gudbjörg Erlingsdottir<sup>1</sup>

- Work that is ignored and overlooked
- Actions needed to complete the visible work
- More sedentary work activities

# Repair Work

- Can take many forms, from emotional labor to expert justifications, and involves the labor of integrating a new technology into an existing professional context
- Not about recovering a status quo but rather about creating a new set of practices and possibilities
- Consistently undervalued, and often rendered invisible
- Shifts our focus from those who initiate a project to those whose work and skill is required to make the project work out in the world

Madeleine Clare Elish and Elizabeth Anne Watkins, *Repairing Innovation: A Study of Integrating AI in Clinical Care* (New York: Data & Society Research Institute, 2020), <https://datasociety.net/pubs/repairing-innovation.pdf>.



A CAUTIONARY TALE

## TOWARDS SHARABLE AND COMPARABLE NURSING DATA

Essentials and Implications of a Unique Nurse Identifier



### A UNIQUE NURSE IDENTIFIER



#### IS BACKED BY POLICY

The Nursing Knowledge: Big Data Science Policy and Advocacy Workgroup and the Alliance for Nursing Informatics (ANI) recommend the National Council of State Boards of Nursing (NCSBN) ID should be used by key stakeholders as a nurse identifier to help demonstrate the value of nursing through research, and enhance individual care and health outcomes via more comprehensive documentation in the EHR, ERP, and other technologies and systems.



#### LEVERAGES AN EXISTING UNIQUE ID

The NCSBN offers a free, unique identifier, publicly available, that is automatically generated, and maintained for each RN. Each NCSBN ID is available in the Nursys database comprising a suite of systems and databases containing nurse license and license discipline information by leveraging the identifier data provided by state licensure boards of nursing in the U.S. and its territories.



#### INCREASES NURSE VISIBILITY AND VALUE

Nursing's contribution to the health of individuals and communities is difficult to measure and often invisible partly due to the absence of a unique identifier for nurses. A unique nurse identifier enables examination of the variability of direct nursing care time and costs and the relationships between patient and nurse characteristics and costs.



#### DEMONSTRATES NURSING CONTRIBUTION

Nursing documentation in electronic health record (EHR), enterprise resource planning (ERP), and other health IT systems can demonstrate nursing's contribution in a value-based care model. The unique identifier can demonstrate the value and contributions of nursing care to improved patient outcomes.



#### ADVANCES SCHOLARSHIP

An identifier is essential to the aggregation, synthesis, and publication of data and research that better capture nursing processes to enable scientific inquiry for researchers to measure and quantify nursing care impact on health outcomes. Measurement of nursing's role in contributing to safe, effective healthcare practices and enhancing enterprise resource planning is possible with a unique nurse identifier.



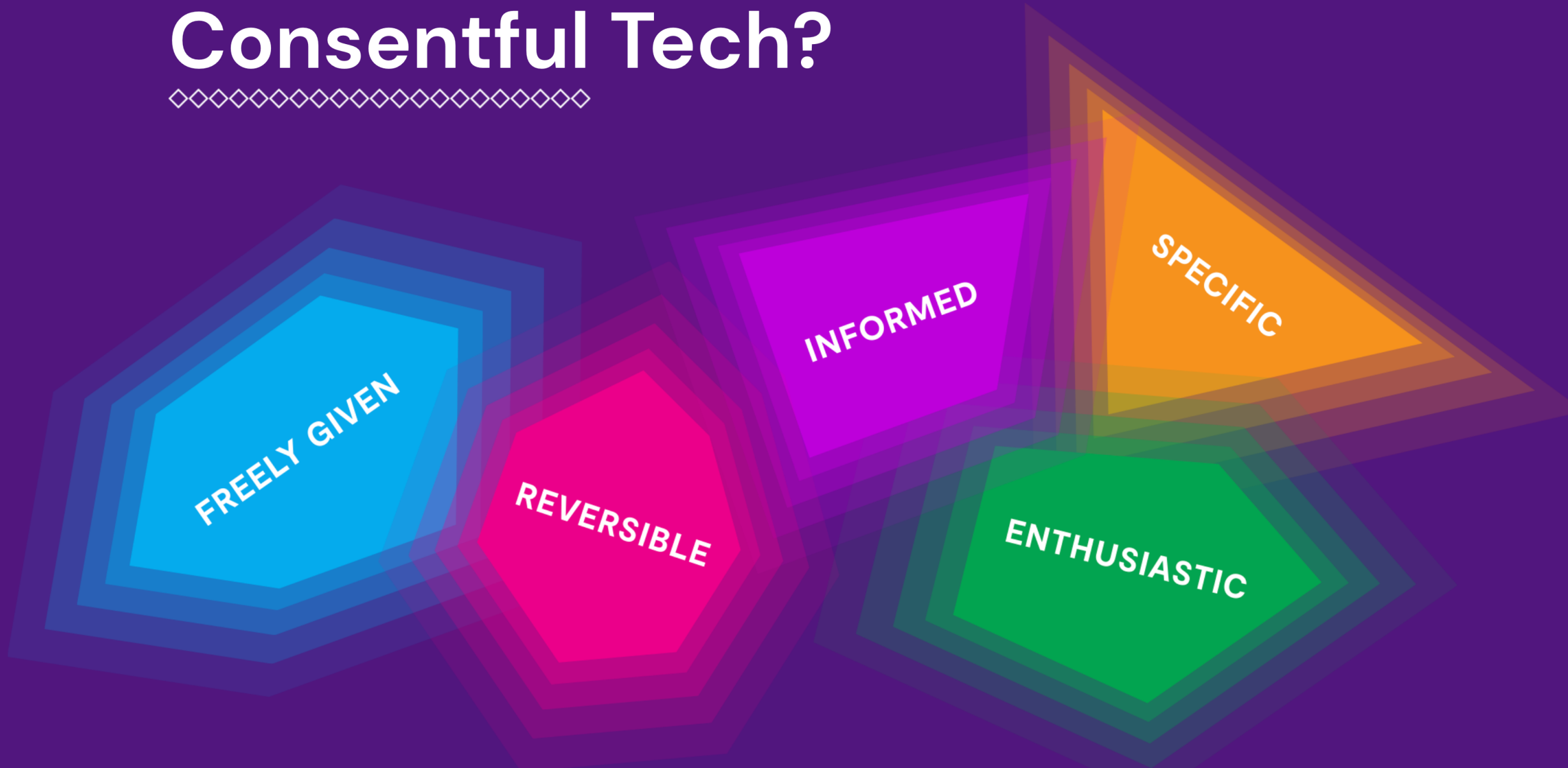
#### IS GAINING ADOPTION

The Nursing Knowledge: Big Data Science Policy and Advocacy Workgroup, established in 2013, identified the need for a unique nurse identifier. Since then, the workgroup has gained support from national nursing and medical associations, academia, societies, organizations, and government agencies, and multiple technology vendors for adoption of a unique nurse identifier.

**What Can Nurses Do?** Advocate with your organization and its health IT systems vendors to adopt the NCSBN ID. For questions and proof-of-concept pilot opportunities contact [wnids@nurseevolution.com](mailto:wnids@nurseevolution.com)

“PROCESSES OF KNOWLEDGE  
PRODUCTION AROUND NEED,  
RESTRUCTURING, AND REDISTRIBUTION  
ARE GROUNDED IN THE EXPERIENCES OF  
POPULATIONS MOST IMPACTED BY  
HEALTH INEQUITIES”

# What is Consentful Tech?



CONSIDER CONTEXT

“Patient mistreatment and clinician burnout are 2 sides of the same coin because the structures in which we attempt to provide care need reimagination. Some of our workplaces are inhumane and work neither for the people we serve, nor those of us who work within them.”



McLemore, Monica R. PhD, MPH, RN, FAAN. Using Retrofit, Reform, and Reimagine to Advance Toward Health Equity. *The Journal of Perinatal & Neonatal Nursing*: April/June 2022 - Volume 36 - Issue 2 - p 99-102 doi: 10.1097/JPN.0000000000000639



WHAT ABOUT EBP &  
IMPLEMENTATION SCIENCE?

Presseau *et al.*

*BMC Medical Research Methodology* (2022) 22:212

<https://doi.org/10.1186/s12874-022-01682-x>

BMC Medical Research  
Methodology

RESEARCH

Open Access



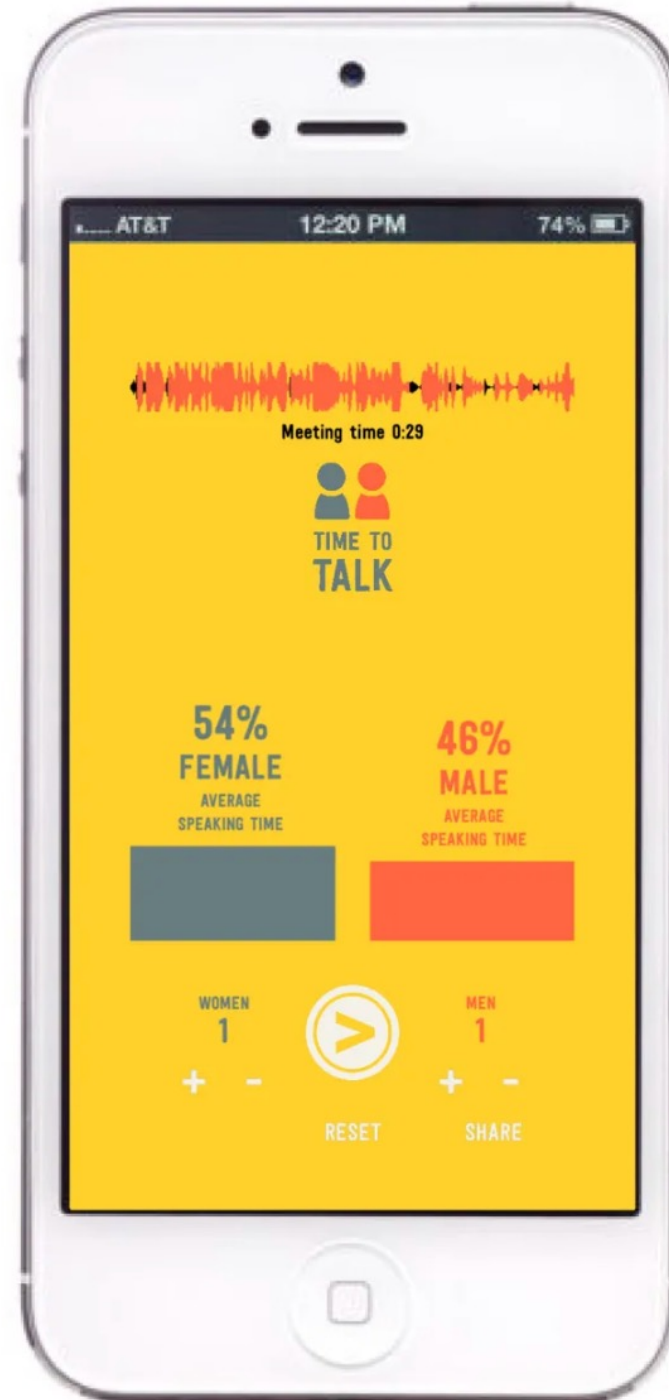
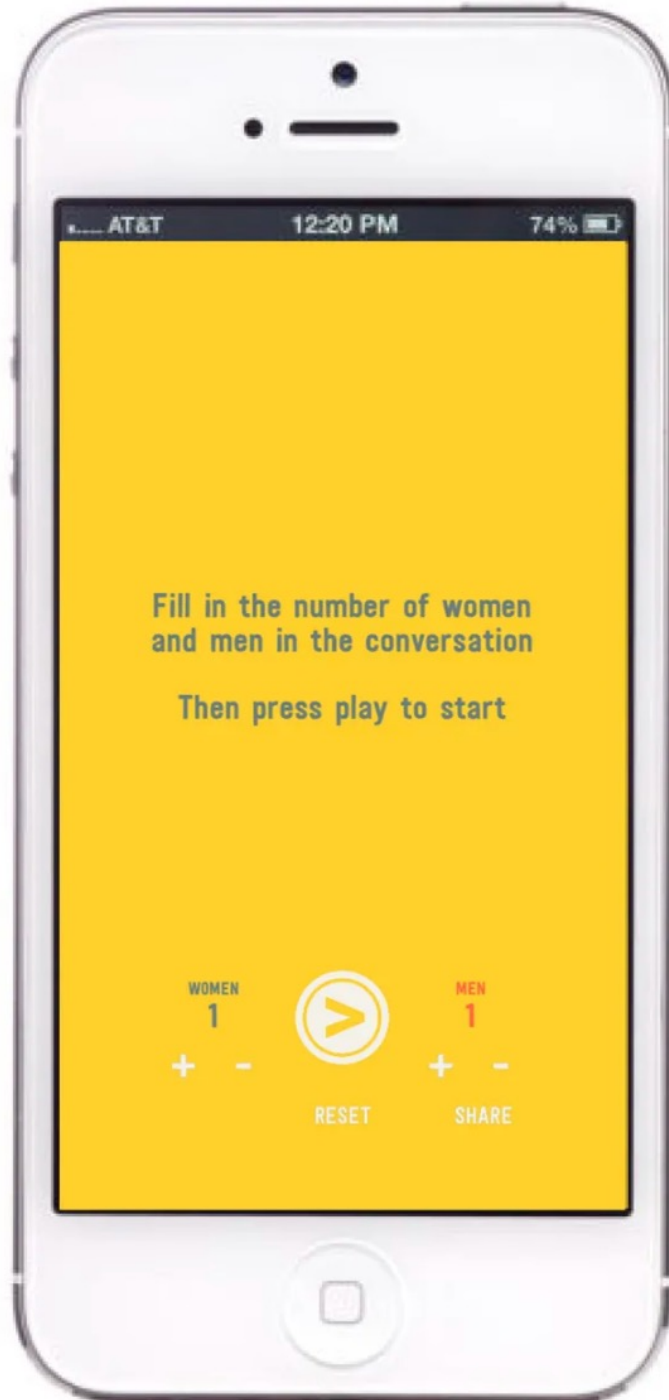
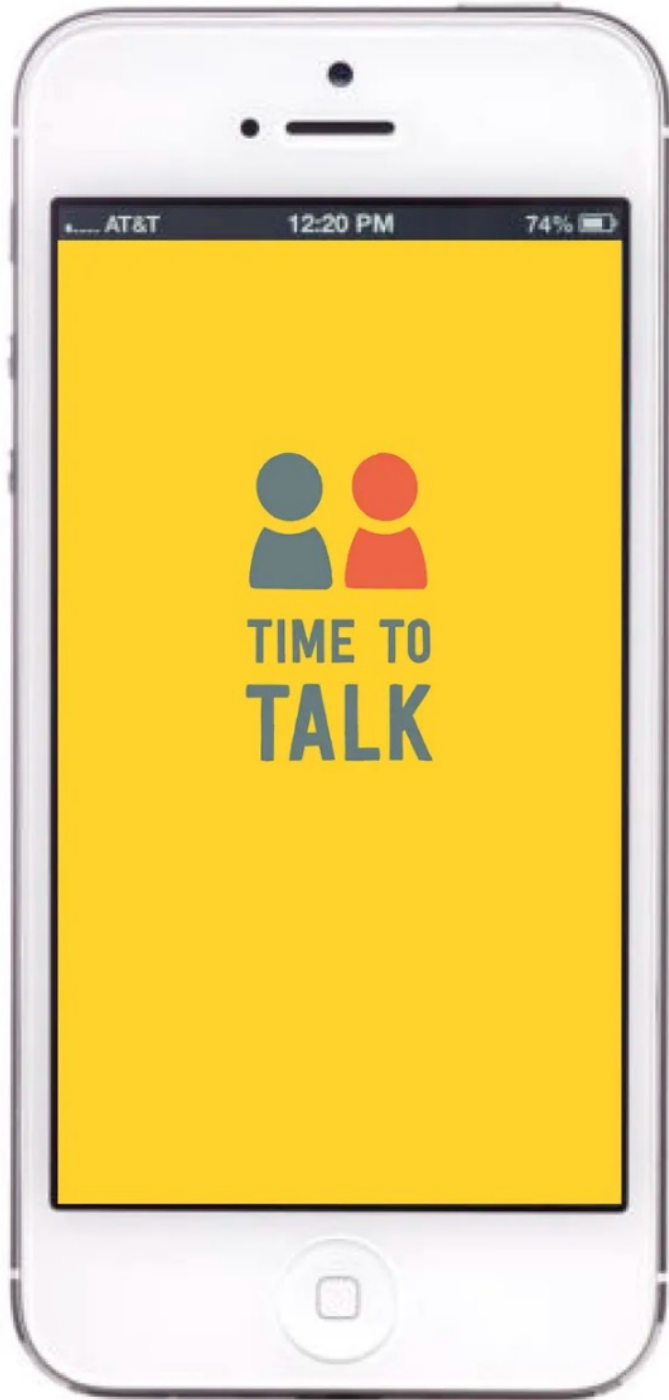
# Selecting implementation models, theories, and frameworks in which to integrate intersectional approaches

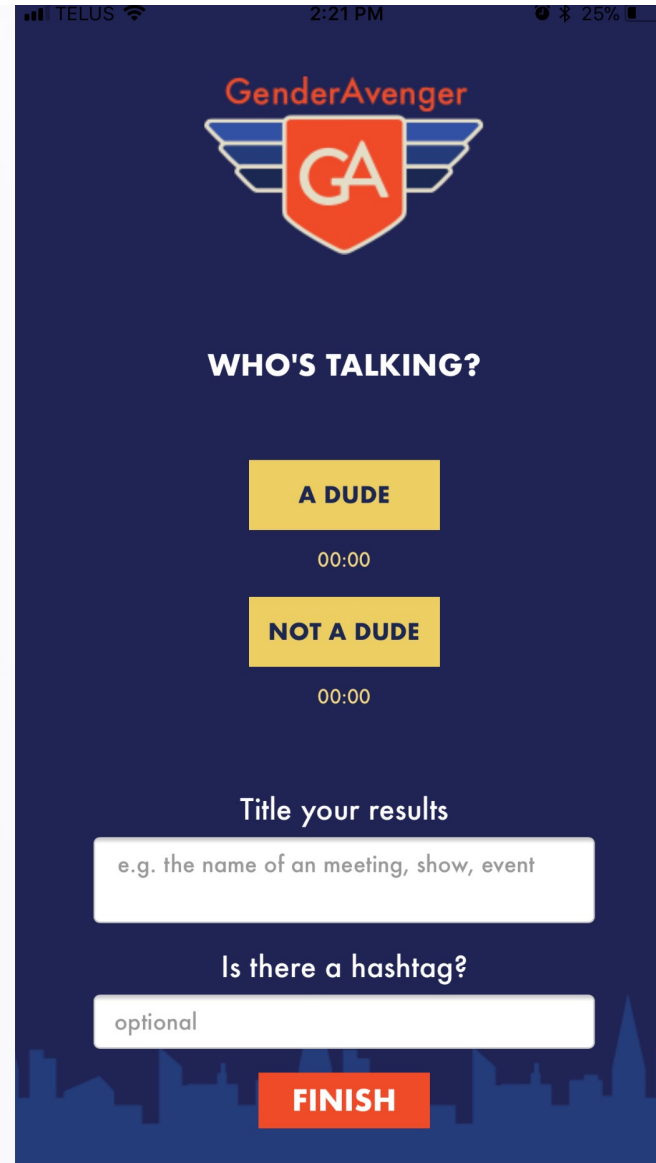
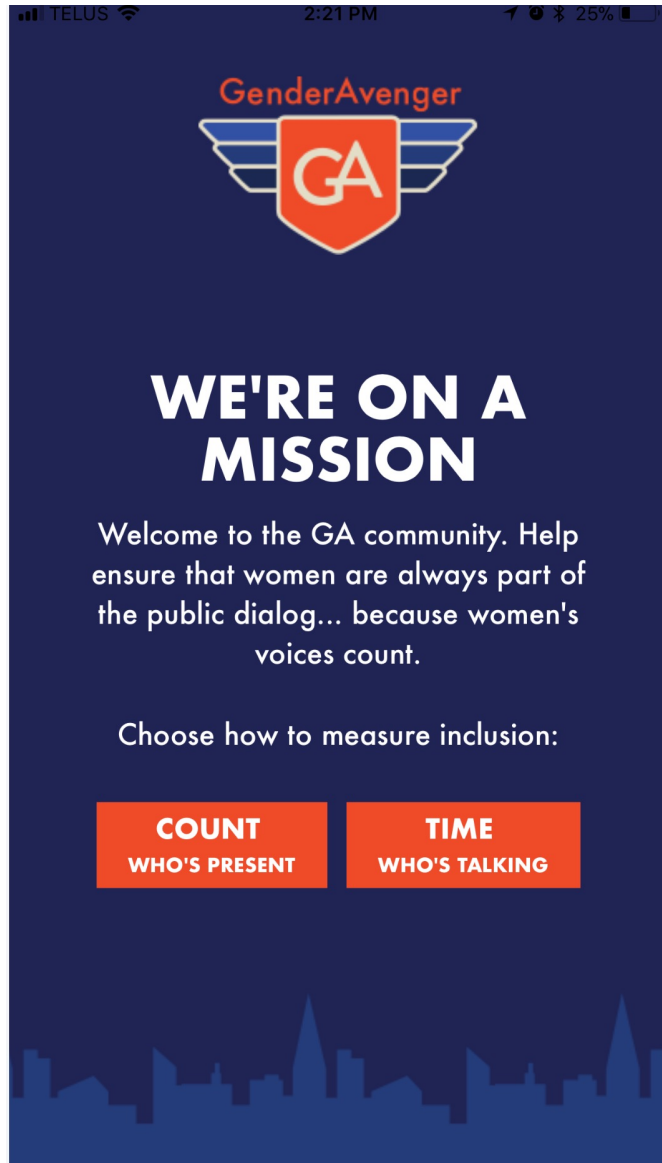
Justin Presseau<sup>1,2,3\*</sup>, Danielle Kasperavicius<sup>4</sup>, Isabel Braganca Rodrigues<sup>5</sup>, Jessica Braimoh<sup>6</sup>, Andrea Chambers<sup>7</sup>, Cole Etherington<sup>1,8</sup>, Lora Giangregorio<sup>9</sup>, Jenna C. Gibbs<sup>10</sup>, Anik Giguere<sup>11</sup>, Ian D. Graham<sup>1,2</sup>, Olena Hankivsky<sup>12</sup>, Alison M. Hoens<sup>13</sup>, Jayna Holroyd-Leduc<sup>14</sup>, Christine Kelly<sup>15</sup>, Julia E. Moore<sup>16</sup>, Matteo Ponzano<sup>9</sup>, Malika Sharma<sup>17,18</sup>, Kathryn M. Sibley<sup>15,19</sup> and Sharon Straus<sup>4,18</sup>

**Table 1** Intersectionality considerations in the action cycle of the Knowledge-to-Action framework

<b>Knowledge-to-Action Framework Action Cycle Phase</b>	<b>Example Intersectionality Considerations</b>
Identify the Problem	Who says there is a problem? Are they in a position of power? Do oppressed groups also categorize this as a problem?
Adapt Knowledge to Local Context	How can the practice change be adapted to meet practitioner intersections (e.g., age, language, and physical ability)?
Assess Barriers/Facilitators to Knowledge Use	What systems and structures of power contribute to individual-level barriers (e.g., beliefs about one's capabilities)?
Select, Tailor, Implement Interventions	How can the implementation strategy be tailored to meet patient intersections (e.g., literacy level, language, and racialization)?
Monitor Knowledge Use	Are power dynamics influencing the delivery of the implementation strategy?
Evaluate Outcomes	Are outcomes the same across all patient groups (e.g., racialized immigrant women compared to non-racialized, Canadian-born men)?
Sustain Knowledge Use	Is staff attrition of certain groups (e.g., nurses who are also caregivers during a pandemic) contributing to knowledge loss?

WHO DEFINES  
THE PROBLEMS?





---

## Comment

<https://doi.org/10.1038/s42256-023-00651-3>

# Translating intersectionality to fair machine learning in health sciences

Elle Lett & William G. La Cava

 Check for updates

Fairness approaches in machine learning should involve more than an assessment of performance metrics across groups. Shifting the focus away from model metrics, we reframe fairness through the lens of intersectionality, a Black feminist theoretical framework that contextualizes individuals in interacting systems of power and oppression.

and bias that results in avoidance, denial, or poorer quality healthcare. On a structural level, Black individuals are disproportionately segregated into 'food deserts' – geographical regions in which residents have limited access to affordable and nutritious food (such as fresh produce), with a related increased likelihood of adverse cardiovascular outcomes<sup>5</sup>. These inequalities and power relations directly map onto bias in ML as characteristics of the generating mechanism for training data. Decreased access to and frequency of healthcare leads to under-representation and increased missingness in training data<sup>1</sup>. Providers directly impact data quality when practicing biased care that varies treatment assignment or outcomes by social identities<sup>6</sup>. Together, these processes that generate social inequalities also coalesce to create

<https://www.nature.com/articles/s42256-023-00651-3>



# Table 1 Intersectionality core ideas for ML researchers

From: [Translating intersectionality to fair machine learning in health sciences](#)

Intersectionality core idea	Implications for ML and fairness
Social inequalities	<b>Data generating mechanism:</b> Training data exhibits health inequities due to social inequalities (such as wealth, education and housing stability) that are driven by interconnected socio-structural systems of power and oppression.
Intersecting power relations and relationality	
Social context	<b>Generalizability:</b> Models built on a biased sample of participants subject to only a subset of the social contexts of the target population (for example, predominantly white, cisgender samples) will not generalize to the entire population <b>Transportability:</b> Models built in one social context, such as predictions for Black individuals in the southeastern USA, may not transport to another, such as Black individuals in the Pacific Northwest.
Relationality	<b>Interpretability:</b> Systems of discrimination and oppression are inter-related and co-constituted such that it may be difficult to parse the individual contributions to predictive accuracy of corresponding features.
Complexity	<b>Measuring (un)fairness:</b> Selecting the appropriate fairness definitions in the model fitting step must be tailored to the specific prediction task, social context and data. <b>Discretion:</b> Some use cases may not be appropriate for ML if data cannot sufficiently represent marginalized groups or tools cannot be fairly deployed.
Social justice	<b>Community participation:</b> Incorporate and centre individuals from marginalized backgrounds throughout the ML pipeline <b>Impact:</b> Use post-deployment studies to determine whether the benefits of ML tools are experienced equitably across groups and if corresponding health inequities are being decreased.

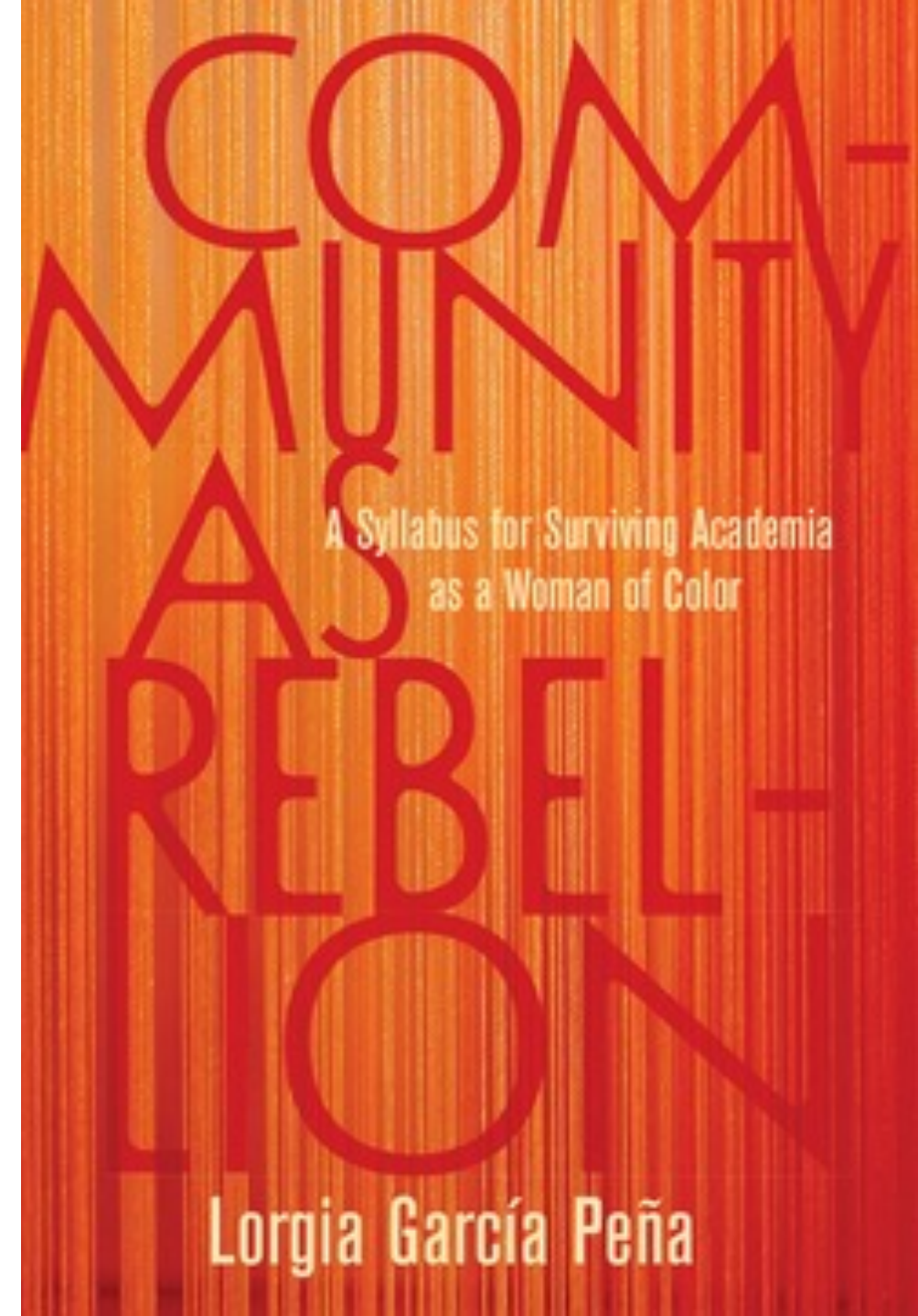
[Back to article page >](#)



WHO IS GIVEN TIME, SPACE  
AND SUPPORT TO  
REFLECT,  
CONNECT, &  
DREAM NEW FUTURES?

“To have community, we must commune. That is, we must insist on community as an action, as a verb.” ...“That is how we survive, thrive, and fight back. That is how we rebel.”

– P. 50, *Community as Rebellion: A Syllabus for Surviving Academia as a Woman of Color*, Lorgia García Peña



WHAT ARE OUR  
COMMITMENTS?

## USING THE INDEX CARD PROVIDED:

1. Write down at least one commitment to the futures you want to build & how you will measure progress
2. Write down at least one means by which someone could reach you to provide encouragement & support
3. Exchange cards with someone nearby
4. If you're active on SoMe & feel comfortable, feel free to tag your commitment at  
#NENICNewFutures



THANK YOU!

Email: [R.Walker@UMass.edu](mailto:R.Walker@UMass.edu)

Twitter: [@UMassWalker](https://twitter.com/UMassWalker)

Web: <https://www.InventRN.org>

