

WE ARE AI
#5

WE Are AI



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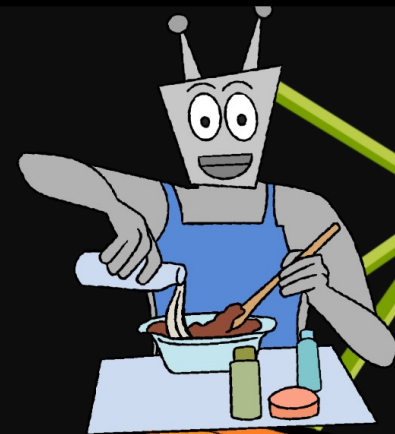
IN THIS VOLUME, WE WILL REVISIT SOME OF THE KEY CONCEPTS FROM THE COMIC SERIES,

REINFORCING THE IDEA THAT
TECHNOLOGY - INCLUDING AI - IS
WHAT WE WANT IT TO BE.

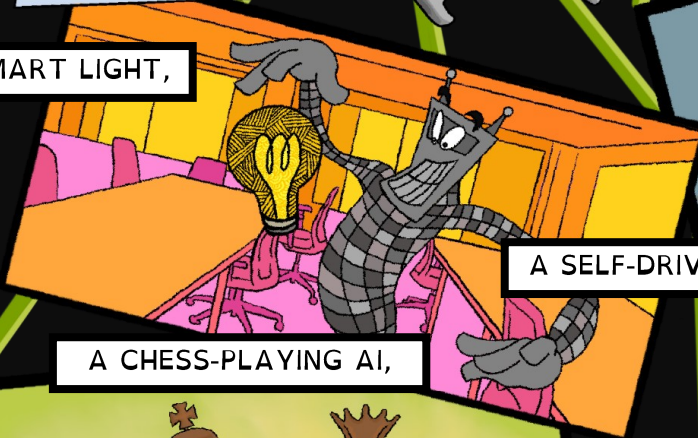
WE ARE AI.

WE PONDERED SEVERAL HYPOTHETICAL
AND REAL-WORLD USES OF AI -

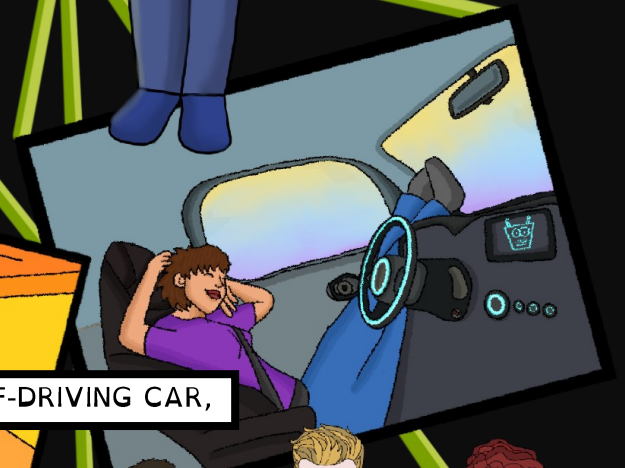
INCLUDING AN ALGORITHM
THAT LEARNS TO BAKE,



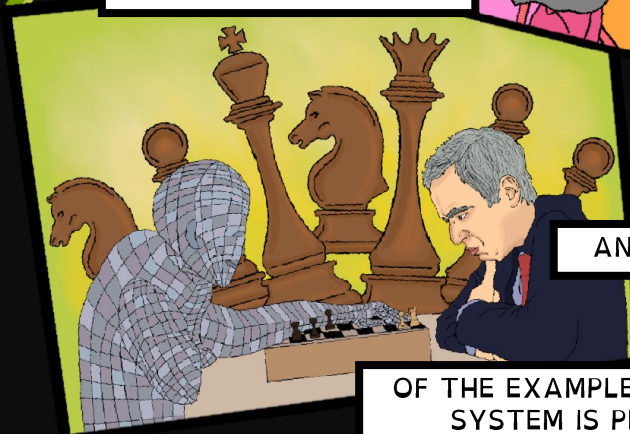
A SMART LIGHT,



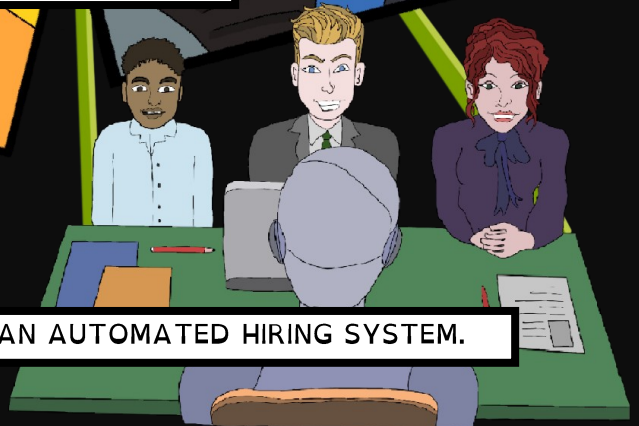
A SELF-DRIVING CAR,



A CHESS-PLAYING AI,



AND AN AUTOMATED HIRING SYSTEM.



OF THE EXAMPLES LISTED HERE, THE AUTOMATED HIRING
SYSTEM IS PERHAPS THE MOST CONTROVERSIAL,

AND IT'S ALSO A TOPIC THAT WE'VE DISCUSSED EXTENSIVELY, SO LET'S REVISIT IT BRIEFLY.

IN THEIR 2018 REPORT CALLED "HELP WANTED" [1], MIRANDA BOGEN AND AARON RIEKE DESCRIBED THE HIRING PROCESS AS A FUNNEL -

A SEQUENCE OF DATA-DRIVEN
ALGORITHM-ASSISTED STEPS,

IN WHICH A SERIES OF
DECISIONS CULMINATES
IN JOB OFFERS TO SOME
CANDIDATES,

AND REJECTIONS
TO OTHERS.

FROM SOURCING CANDIDATES
THROUGH ONLINE JOB POSTINGS,

TO ASSESSING CANDIDATES'
EXPERIENCE, SKILLS, AND
CHARACTERISTICS.

AND FINALLY MAKING HIRING
DECISIONS - USUALLY INCLUDING
BACKGROUND CHECKS,

AND DETERMINING AN APPROPRIATE
LEVEL OF COMPENSATION.

IMPORTANTLY, DATA AND
PREDICTIVE ANALYTICS - THAT
WE HAVE BEEN CASUALLY
DENOTING "AI" - ARE USED
DURING ALL OF THESE STAGES.

AS STATED BY JENNY YANG, FORMER
COMMISSIONER OF THE US EQUAL EMPLOYMENT
OPPORTUNITY COMMISSION (EEOC),

BECAUSE OF THE IMPORTANCE OF THE
DECISION THEY MAKE OR HELP MAKE,

"AUTOMATED HIRING SYSTEMS ACT AS MODERN
GATEKEEPERS TO ECONOMIC OPPORTUNITY."



WE HAVE SEEN EXAMPLES IN WHICH THESE TOOLS REINFORCE GENDER AND RACIAL BIAS.

AUTOMATED HIRING SYSTEMS
ALSO LIMIT ACCESS TO JOBS FOR
INDIVIDUALS WITH DISABILITIES -

SHUTTING OUT PEOPLE SUFFERING
FROM MENTAL ILLNESS SUCH AS
DEPRESSION OR BIPOLAR DISORDER,

ON THE BASIS OF ONLINE
PERSONALITY TESTS,

EVEN IF THEY HAVE THE
RIGHT SKILLS FOR THE JOB. [2]

WE ARE ALSO OFTEN WORRIED ABOUT
WHETHER THESE TOOLS ACTUALLY "WORK" -

WHETHER THEY ARE PICKING UP
USEFUL SIGNALS FROM THE DATA

OR ARE AN ELABORATE
COIN FLIP AT BEST.

AS ARVIND NARAYANAN PUTS IT: [3]

ARE THESE TOOLS
AI SNAKE-OIL?

[3] How to recognize AI snake oil. (2019). Arvind Narayanan

AI TOOLS ARE ENGINEERING ARTIFACTS.

TO KNOW WHETHER THEY WORK WE SHOULD USE THE SCIENTIFIC METHOD:

FORMULATE A HYPOTHESIS THAT STATES - IN A FALSIFIABLE WAY - THAT THE TOOL INDEED SELECTS EMPLOYEES WHO DO WELL ON THE JOB,

AND IS BETTER AT PREDICTING THAN A RANDOM GUESS WOULD BE.

AND BE PREPARED TO ACCEPT THAT THE TOOL DOESN'T WORK BASED ON THE RESULT.

THEN, DESIGN AN EXPERIMENT TO CHECK THIS HYPOTHESIS,

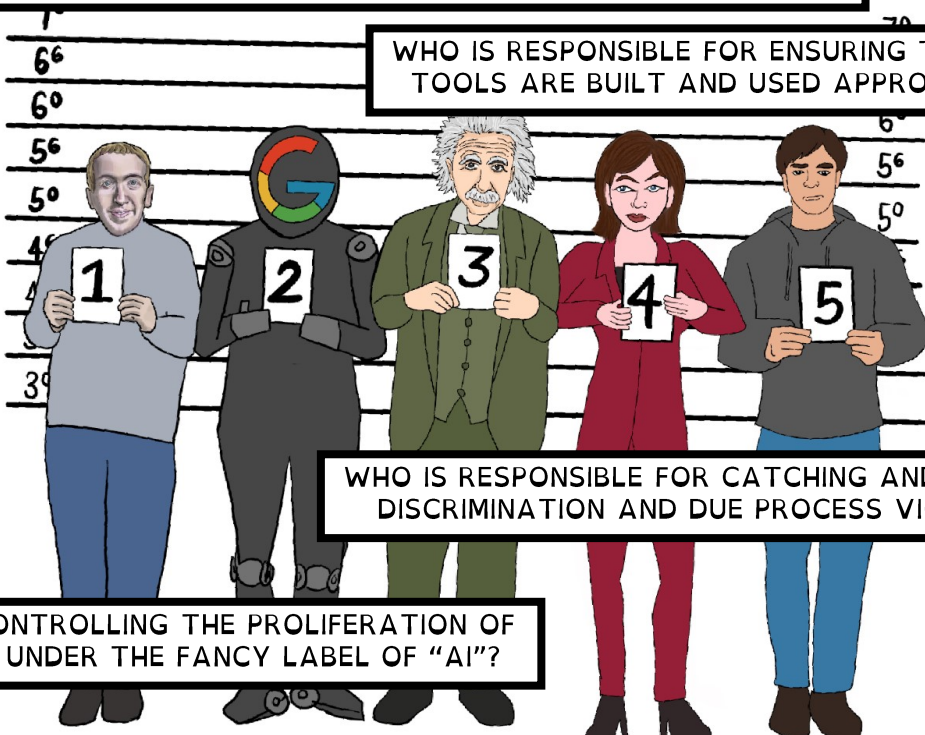
IN THE COMPLEX ECOSYSTEM IN WHICH AUTOMATED HIRING TOOLS ARE COMMISSIONED, DEVELOPED, AND USED, WE MUST ASK OURSELVES:

WHO IS RESPONSIBLE FOR ENSURING THAT THESE TOOLS ARE BUILT AND USED APPROPRIATELY?

WHO IS RESPONSIBLE FOR CATCHING AND MITIGATING DISCRIMINATION AND DUE PROCESS VIOLATIONS?

AND FOR CONTROLLING THE PROLIFERATION OF SNAKE-OIL UNDER THE FANCY LABEL OF "AI"?

THE ANSWER IS - WE ALL ARE.



IN RESPONSE TO THESE QUESTIONS, WE'VE BEEN SEEING ATTEMPTS TO REGULATE THE USE OF ALGORITHMIC TOOLS.

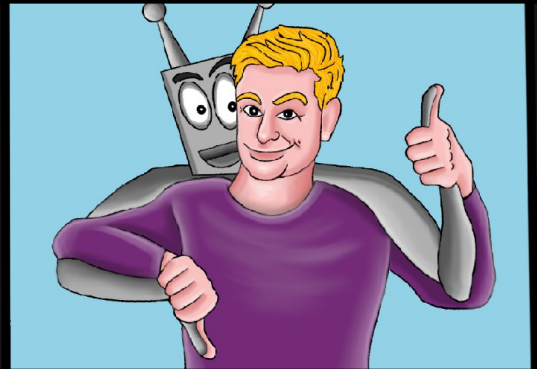
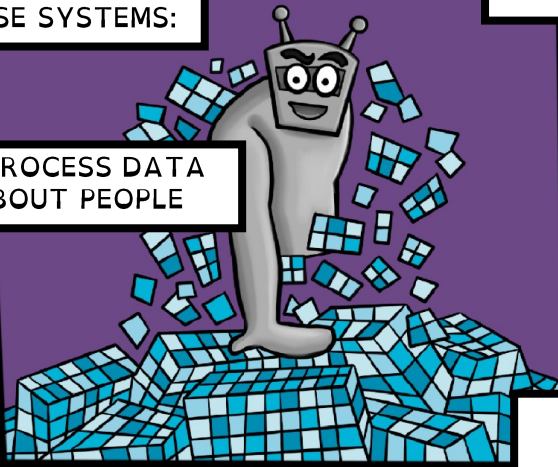
LET'S NOW STEP BACK FOR A MORE SYSTEMATIC VIEW OF

"AUTOMATED DECISION SYSTEMS" OR ADS.

THESE SYSTEMS:

2. ASSIST - EITHER IN COMBINATION WITH HUMAN DECISION MAKING OR AUTONOMOUSLY -

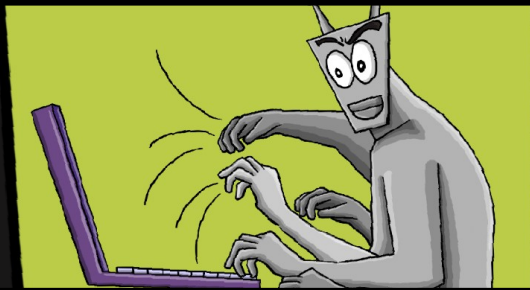
1. PROCESS DATA ABOUT PEOPLE



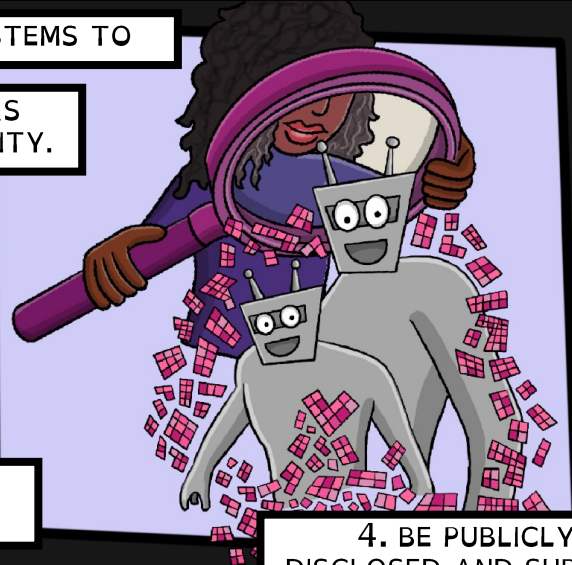
IN MAKING CONSEQUENTIAL DECISIONS THAT IMPACT PEOPLE'S LIVES AND LIVELIHOODS

ADDITIONALLY, WE WOULD WANT SUCH SYSTEMS TO

3. HAVE A SPECIFIC, STATED GOAL - SUCH AS IMPROVING EFFICIENCY AND PROMOTING EQUALITY.



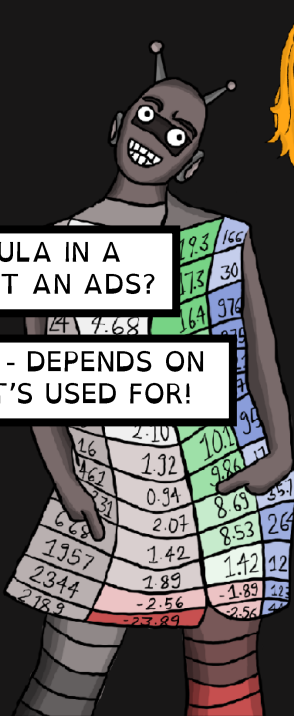
AT THE VERY LEAST, THEY MUST NOT HINDER EQUITABLE ACCESS TO OPPORTUNITIES



4. BE PUBLICLY DISCLOSED AND SUBJECT TO LEGAL AUDITS.

IS A FORMULA IN A SPREADSHEET AN ADS?

PERHAPS - DEPENDS ON WHAT IT'S USED FOR!



IS IT AN AUTOMATED HIRING TOOL?

DEFINITELY SO!



BUT IS A CALCULATOR AN ADS?

THE ANSWER IS - NO!



HOW MIGHT WE GO ABOUT REGULATING ADS?

AND SHOULD WE EVEN ATTEMPT TO?

WHILE THE PREDOMINANT SENTIMENT IN THE INDUSTRY IS STILL THAT "REGULATION WILL STIFLE INNOVATION",

INDUSTRY ALONE DOESN'T GET TO DECIDE.

AND EVEN IN THE SILICON VALLEY, THE NEED FOR MEANINGFUL REGULATION TO EASE COMPLIANCE AND LIMIT LIABILITY IS STARTING TO BE MORE BROADLY RECOGNIZED.

THERE IS MUCH DEBATE ON A SPECIFIC REGULATORY FRAMEWORK:

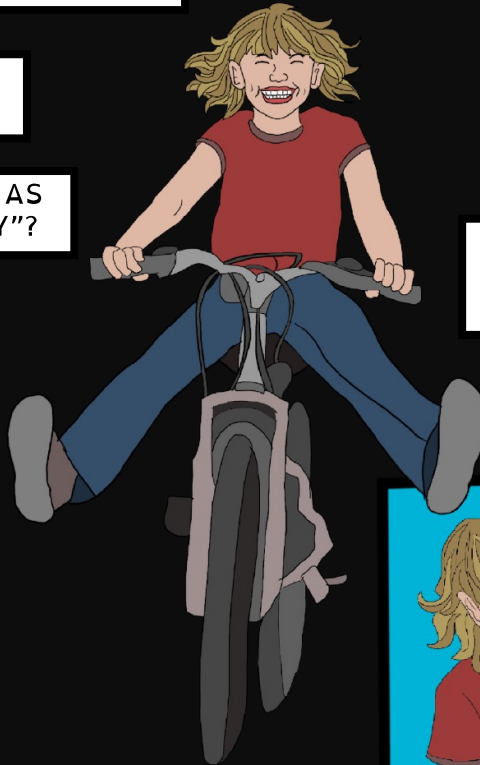
SHOULD WE USE PRECAUTIONARY PRINCIPLES —

THAT CAN BE SUMMARIZED AS "BETTER SAFE THAN SORRY"?

OR, MORE LIKELY, ATTEMPT A MORE AGILE RISK-BASED METHOD,

SUCH AS ALGORITHMIC IMPACT ASSESSMENT?

ALL THIS, AND MORE, IS THE SUBJECT OF INTENSE DEBATE.



AS AN EXAMPLE, NEW YORK CITY RECENTLY MADE A VERY PUBLIC COMMITMENT TO OPENING THE BLACK BOX OF THE GOVERNMENT'S USE OF TECHNOLOGY.

IN MAY 2018, AN AUTOMATED DECISION SYSTEMS TASK FORCE WAS CONVENED, THE FIRST SUCH IN THE US,

AND CHARGED WITH PROVIDING RECOMMENDATIONS TO NEW YORK CITY'S AGENCIES,

ABOUT BECOMING TRANSPARENT AND ACCOUNTABLE IN THEIR USE OF ADS.



THE TASK FORCE ISSUED ITS REPORT IN NOVEMBER 2019 [4], MAKING A COMMITMENT TO USING ADS WHERE THEY ARE BENEFICIAL;

PROMOTING FAIRNESS, EQUITY, ACCOUNTABILITY, AND TRANSPARENCY IN THEIR USE,

AND REDUCING POTENTIAL HARM ACROSS THEIR LIFESPAN.

WE NOW NEED TO WORK TOGETHER TO MAKE THESE PRINCIPLES MORE CONCRETE.

THE FIRST STEP IS TO
THINK CAREFULLY
ABOUT OUR GOALS.

AI GIVES US UNPRECEDENTED
OPPORTUNITIES TO ACCELERATE
SCIENCE AND BOOST INNOVATION,

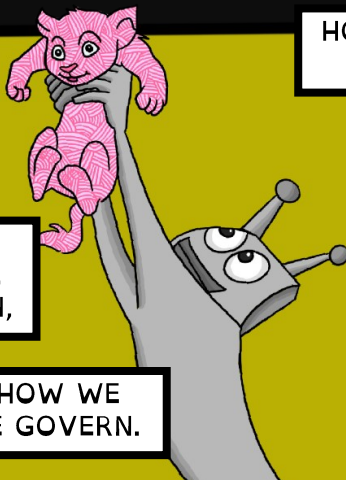
TO TRANSFORM HOW WE
LIVE AND HOW WE GOVERN.

BUT, WHEN WE DESIGN AI AND PUT IT TO USE, WE
SHOULD BE UPFRONT ABOUT THE GOALS WE PURSUE,

WHO BENEFITS WHEN WE
REACH THESE GOALS,

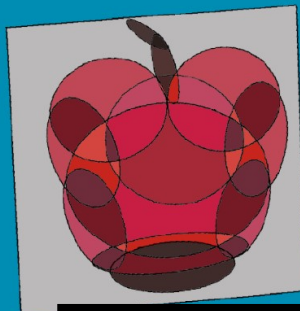
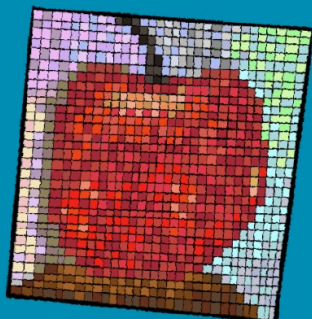
AND WHO IS HARMED.

HOW DO WE MAKE ADS WORK
FOR ALL OF US?



WHETHER AI WORKS FOR ALL OF US DEPENDS ON THE CHOICES WE MAKE –

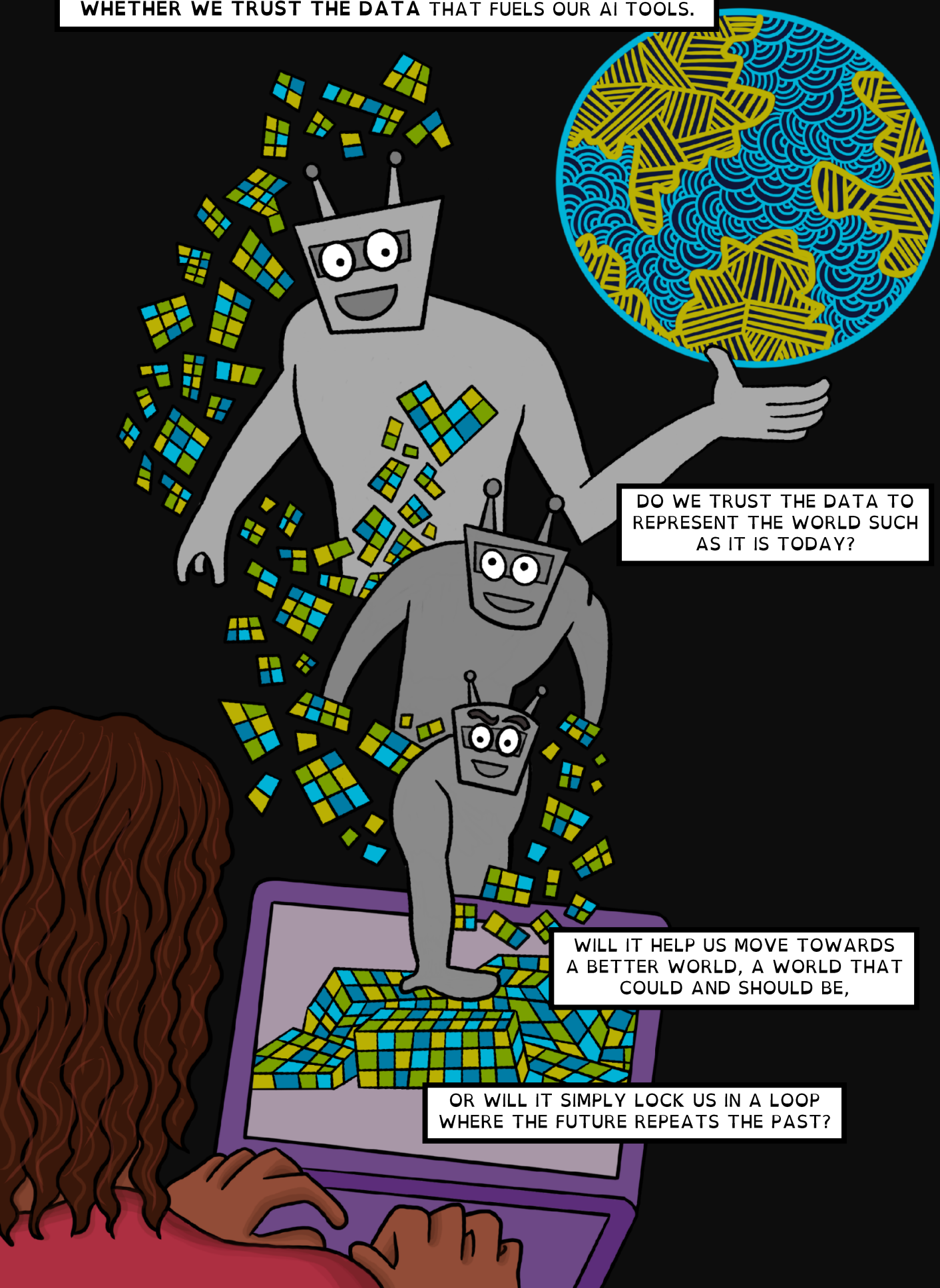
SUCH AS DECIDING HOW TO
REPRESENT VERY COMPLEX AND
OFTEN UNMEASURABLE CONCEPTS.



WHAT ARE THE FEATURES WE
WILL SELECT TO REPRESENT A
PROMISING JOB APPLICANT?

BASED ON WHAT DO WE DECIDE THAT A
CLASSIFICATION RULE SUCCEEDS OR FAILS?

WE ALSO MUST THINK CAREFULLY AND CRITICALLY ABOUT
WHETHER WE TRUST THE DATA THAT FUELS OUR AI TOOLS.



DO WE TRUST THE DATA TO
REPRESENT THE WORLD SUCH
AS IT IS TODAY?

WILL IT HELP US MOVE TOWARDS
A BETTER WORLD, A WORLD THAT
COULD AND SHOULD BE,

OR WILL IT SIMPLY LOCK US IN A LOOP
WHERE THE FUTURE REPEATS THE PAST?

HOW CAN WE USE TECHNOLOGY TO MAKE SOCIETY BETTER?

TO DO SO, WE MUST FIND A PRAGMATIC MIDDLE GROUND
BETWEEN THE HARMFUL EXTREMES OF

TECHNO-OPTIMISM —

A BELIEF THAT TECHNOLOGY CAN SINGLE-
HANDEDLY FIX DEEP-SEATED SOCIETAL PROBLEMS
LIKE STRUCTURAL DISCRIMINATION IN HIRING,

AND TECHNO-BASHING —

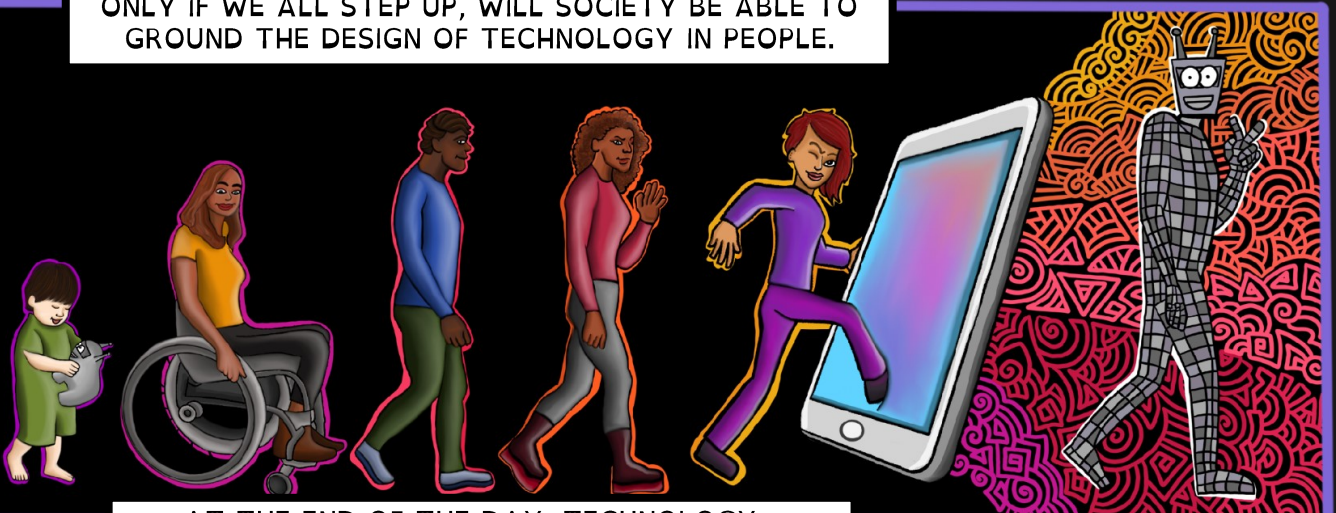
A BELIEF THAT ANY ATTEMPT TO
OPERATIONALIZE ETHICS AND
LEGAL COMPLIANCE IN ADS WILL
AMOUNT TO 'FAIRWASHING',

AND SO SHOULD BE
DISMISSED OUTRIGHT.

TO MAKE PROGRESS, WE ALL NEED TO STEP OUTSIDE OUR COMFORT ZONE.

WE NEED TO TAKE IT UPON OURSELVES TO MAKE THE DECISIONS MADE
DURING THE DESIGN, USE, AND OVERSIGHT OF AI - OUR DECISIONS.

ONLY IF WE ALL STEP UP, WILL SOCIETY BE ABLE TO
GROUND THE DESIGN OF TECHNOLOGY IN PEOPLE.



AT THE END OF THE DAY, TECHNOLOGY -
INCLUDING AI - IS WHAT WE MAKE IT TO BE.

WE ARE AI.

FIN.