

# AI, DATA AND POLICY

3 papers

- ① Vidushi Marzda "AI policy in India; a framework —"
- ↳ Response to ~~how~~ Indian states' AI policy
- ↳ It is a critique, not criticism on Indian state's AI policy

↳ academic word for hucking

- you are harming system to make it better

↳ learn art of critique, not criticism

↳ don't say I don't like it

You must do a proper skeptical study

## ② AI, Governance & Ethics

↳ Multiple countries and how they have AI and authors of those countries critique on AI

## ③ On Dangers of Stochastic Parrots by Bender et al

↳ Authors were part of Google ethics community  
- got fired

↳ Stochastic means probabilistic

- stochastic parrot = probabilistic parrot

- ML works with prob of weights

- parrot of LLMs are stochastic parrots

- they do not have general intelligence

- they are just stochastic parrots

- it's dangerous to assign human decisions to it

What is Policy?

- Policy is what state does

What is state?

- state has authority to control life
- state has legitimacy to do violence (Max Weber)
- Hegel: def<sup>n</sup> of state evolves with time
- Karl Marx: state is not separate from society  
Society has group of people with different powers & dominant one becomes state  
- it is not ideas that change with time,  
it is material relations which change with time

e.g. when land & horses were dominant,  
aristocrats were the state

- when industry & trade became dominant,  
capitalists made the modern state

- evol<sup>n</sup> of state is bcoz of technological adv.  
not bcoz of evol<sup>n</sup> of ideas

- so tech is backbone of state

↳ If Marx's theory is correct,

- AI is new tech revol<sup>n</sup>

- so society is changing & hence state

↳ State is not merely the Government

- suppose you're sending money to yr relative

- bank can be private

- but it works with monetary rules of government

- so government has exported its violence powers to private entities

↳ state is government + all institutions which work according to rules defined by government or central authority

↳ state doesn't stop at public & doesn't get stopped by private  
- it is beyond public & private

- lots of policy making done by private also  
e.g. corporate rules in India uniform across all companies

## Idea of AI

↳ Idea that machines will act like human intelligence <sup>they have</sup>

e.g. Rhodes Island

- statue of soldier throwing arrows automatically when enemy comes

↳ literal meaning of word Robot: Slave

- Czech play first introduced idea of Robot

↳ Butlerian Jihad in Dune

- author of Dune gave shout out to author Samuel Butler who was first author who wrote about intelligent machine (Book: "Darwin among Machines" chapter)

he wrote that machines will do all work

(he predicted digital age even before electricity)

↳ Hero of Alexandria in Greece made first automatic machine (musical instrument)

- before digital age, these machines were called automata



↳ Automata lacked intelligent functionality

↳ can't be done w/o formal reasoning

- medieval ages : development of logic

↳ mathematical logic

- Leibnitz worked on formalizing logic

- George Boole gave boolean algebra

↳ 1642 AD → first calculator (Pascaline)

- Abacus existed for a long time

- but Pascaline was a proper calculator where you give proper numbers as inputs.

- Pascaline : only add<sup>n</sup> / sub

- Leibnitz's calculator : add<sup>n</sup> / sub / mult / div

↳ What makes state really care about making machines compact

- Prussia wanted to use machines in warfare

- so compact calculators needed

- Philipp Matthäus Hahn invented compact calculator that one person can carry (still 10-20 kg)

↳ ~~the~~ comp has 3 things : input, processor, memory

↳  
this is  
only mathematical

↳ Jacquard's loom was first memory device which was on handloom which inspired punch cards in computers

↳ Charles Xavier Thomas de Colmar

- made arithmometer
- compact + suitable for office use

↳ Now there was need for complex math computations

- these used to be jobs for computers, the people who could "compute"

- "Hidden figures" movie: abt people who did math behind NASA's moon landing

- it was ill-paid job so mostly black women used to do

↳ Computer Science

- differentiation used everywhere from finance to astronomy
- charles ~~cabbage~~<sup>baggage</sup> made difference engine which worked on steam power (no electricity yet)

- Ada Lovelace wrote world's first program which printed bernoulli's sequence

- they did not have money and british government did not give them funding

- so computers were not made for next 100 years

- plans w/ of charles Cabbage were public but there was no need of computers as human "computers" were there as cheap laborers

↳ Need for machine computers started in WW2

- World's first electromech computer was made by Nazis.

- Polish scientists were also making computer & went to London after Nazi occupation

- Alan Turing at London completes it & uses that computer to decipher enigma.

- hence Alan Turing called father of Computer Science

↳ British government did not support computer scientists  
- so people went USA

↳ first electronic computer <sup>"eniac"</sup> made by univ of pennsylvania  
- vacuum tube → semiconductor industry

↳ Claude Shannon made IT a field

↳ Norbert Wiener : using computers : we can integrate math & data on one side & human things on other side

- its called "cybernetics"

- do we do computer science in relation with <sup>human science</sup> ~~computer~~ <sub>order</sub>

Some people separated comp science from human science & forked a new branch "Artificial Intelligence" & made it ~~human~~ complete engineering subject

- Today, computers are again intervening in human life and cybernetics is back

↳ Dartmouth workshop is where AI word was tossed

↳ ELIZA case : people treat computer as human

↳ chatgpt