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Arbitrage \Rightarrow Picking up funds by corporate, by finding gap in market (mainly happen in Japan)
(1980)
 \rightarrow 2nd AI winter, not due to scientific curiosity as before (1st boom) 1954
 \downarrow
Gap filled \rightarrow demand of AI \downarrow (1987)

2011 \rightarrow GPU comes and people started training models through GPU
 \downarrow
3rd AI boom (hype cycle).

- India doesn't have any AI law
- But India has a AI policy

Nirmala Sitharaman \rightarrow AI Task Force \rightarrow 1st policy (document) on AI in India Future of

NITI Aayog \rightarrow Why not we have "Maven" \rightarrow Criticize \rightarrow Responsible AI

FRT (protected against)

\hookrightarrow Privacy get hampered (human right violated)

MDL is stochastic technology \Rightarrow There surely error will come in future in FRT system

Innovation \leftrightarrow Regulation

Regulation is not a monolithic, is not for good or bad
Regulation good for masses, often bad for business.

Luddites \rightarrow Branch of people, angry with new technology

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(MSME)

IT doesn't come under this
↓
like a shopkeeper

"Do no harm" Google/IT sector self regulation → to stop being regulated
Companies are incapable of self governance/self regulated.
As Aim is increase shareholder's value

Company having ethics council is not a real solⁿ
(Google).

"Ethics Washing" → Showing we are regulated so no need of extra regulation
Ex = "Green ~~Planet~~ Earth" under this advertisement of oil company

⇒ Societal problems can't be solved by rush through them
"pressure cooker can't give women more free time"

⇒ Technology makes things faster but not solve

"Solving complex social problem through technology ⇒ Techno solutionism"
Evgeni Morozov

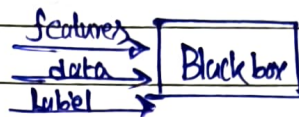
"Making category and making it into reality ⇒ Realification"
Cooking course → 3 category
→ Best cook

Decision of using AI ⇒ policy
AI never does policy

(i) Training data
(ii) Validation data
(iii) Testing data } Supervised ML Need training data with annotation comes from human labour

Features - useful qualities extracted from data point.

At old day



Now



Cross Validation :-

Art of breaking training data in several parts and repeatedly training on that

Active Learning :- "Retrain the model with whole data when we get new data is not logical"

Ensemble Learning :- Take multiple model and join them

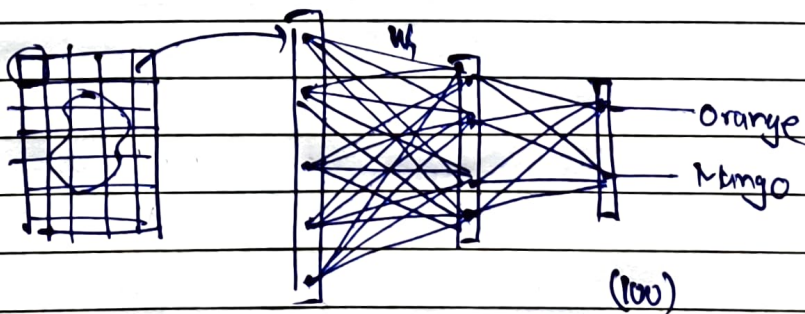
Oracle :- No enough data, generate synthetic training data

Overfitting :- data points very similar to each other, coming anomalous i/p give wrong answer

Model being overfitted - Brittle model

Explainability :- Transparency

Bias :- unrelated o/p.



{ Neural network with many intermediate layer \rightarrow Deep neural network
 " " with no " " only i/p and o/p layer
 Deep Neural network with convolution work \rightarrow Perceptron
 Convolution NN
 Find the edges of image