

What is Science and what is not?

A science can only be something if there is a hypothesis that can be made that can be proven wrong

There should be a possibility of being proven wrong

If something can't be proven wrong, that can't be proven right

Astrology can't be proven wrong

Why Pathognomy can't be science?

Via bone structure, you try to identify the character of the person

Science was earlier called "Natural Philosophy"

Science, where you deliberately try to prove things wrong

Idea of Emotion Detection:

The idea is that you can use somebody's behaviour, and you can identify their emotions.

Essential is the idea that human life has an essence

Racism is a type of essentialism

All essentialism is wrong

All expressions are the creation of social context

## **Indian Data and AI Policy**

Amendment on British rule of Telegraph Act.

You will need a license for machine-to-machine communication

History of Indian Judicial Thoughts on Privacy

1. MD Sharma vs Satish Chandra 1998 case
2. Kharak Singh vs State of UP
3. ADM Jabalpur vs Shivkan Shukla 1976
4. Navtej Singh Johar vs Union of India: **Right to Privacy**
5. Puttaswamy vs Union of India 2017
6. Information Technology Act 2000
7. AP Shah Committee Report 2012

8. Private member bills
9. Personal Data Protection Act (GDPR)

Burden of proof

2004 Jus Solice

After 2004 Jus .....

Aadhar is voluntary but compulsory

10. Telecom Commercial Communication Preference Regulation (TRAI Regulation) 2010

What about AI?

{Image}

# Computer Vision

## What is Computer Vision?

### What are we doing when we see?

Data in image

Geometry

Image processing

Understanding Images

### Standard Tasks:

Image Processing

Feature extraction

Segmentation -> Semantic Segmentation (More advanced segmentation)

Stitching

Recognition

Detection

Captioning

Edge detection is done by heuristic differentiation using any filters: **Kanny filters**

## **Mathematics Involved**

Calculus  
Linear Algebra  
Signal Processing  
Geometry  
Optimization Theory

## **Resources**

Python  
Google Colab  
OpenCV  
MATLAB/R  
Gimp