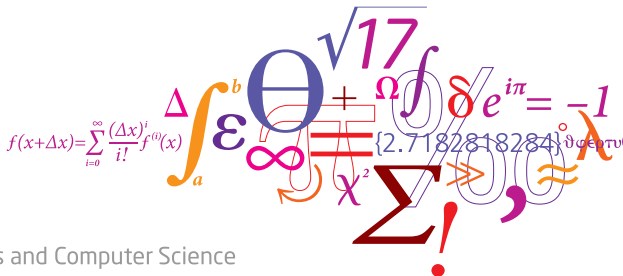


## Lecture xx

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# Outline

- What is ML

- Supply/demand

## What is a job?

- Presented with some situation
- Gather information  $X$
- Based on information  $X$ , make decision  $y$
- Based on  $y$ , carry out some action

- ML is considered disruptive because
- "gathering information" will take a new meaning (currently: active; limited; fuzzy)
- "intelligent decision making" will become cheaper, more ubiquitous (cf. specialized medical decision making, robots that bring out food, robots that spray )
- you no longer need the expert

Presented with a user: Gather information (social graph), based on information, select meme most likely to influence his political beliefs towards preferred candidate/distrust/racism/fascism, present him with me (repeat for all users of the internet)

- Data is very important. Optimal method + bad/limited data < Suboptimal model + lots of data
- "superhuman learning" tends to be models which have been trained with superhuman amounts of data/experience
- "data" can have a number of issues (missing, etc.). Understanding these issues will be focus on first part of the course

- Often, we don't know which models are good which are bad.
- we take an empirical engineering approach
- (start simple; have objective evaluation criteria; be critical of what your model does; visualize results)

different models for different tasks: don't assume everything is a deep conv net. We will therefore look at different kinds of models.



## Tasks today:

- Form groups (max 3 persons)
- Select a dataset to work with (PDF file on campusnet)
- Register group/have your dataset approved by instructor
- Complete exercise 1 (PDF file on campusnet)

For online help or group formation see Piazza: ..

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