

Who's Afraid of the Big Bad AI: The Robot and the Human Should Be Friends

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1. Are there problems? Oh yes

- There are technical problems: AI results are good, but current systems require:
 - millions of data points and
 - long time to train.
- There are fundamental problems:
 - We do not trust AI: it is often not explainable.
 - Only Big companies can afford to design ChatGPT, so we are at a mercy of these un-elected leaders.
 - Ethical dilemmas – in an extreme situation shall a car hurt the driver or a pedestrian?
 - AI may replace us – we humans will no longer be needed.

2. How can we solve these problems

- Machines help design new machines, computer programs help design new computers, etc.
- So why not use AI techniques to solve AI programs:
 - we can train AI to train with fewer examples and faster,
 - we can train AI to also produce explanations, just like we train it to produce results.
- Re ethical dilemmas – Forget philosophers, they will continue arguing, let's follow social norms:
 - take driver and pedestrian risks in the past and now,
 - find the dependence between these two – that describes social norm – and
 - extrapolate it into the future.

3. AI is here already

- It's too late to be afraid: AI is already here.
- It is used in Google translate.
- It is used in autopilot for planes.
- It is used when cars park themselves, etc.

4. Will we be needed?

- Yes, more routine tasks are being automated, is it that bad?
- When radio came many folks thought that teachers will not longer be needed, same with telephone, TV, computers, now AI.
- AI is a tool, just like MatLab is a tool for solving systems of equations.
- It is a smart tool, but are we afraid that there are smart Einsteins around?
- Einstein did not replace physicists.

5. One cannot stop progress

- At the SMC 2022 tour of Institute of Cybernetics, we saw AI-using robots in cages – as dangerous beasts.
- This makes sense when we experiment, but caged machine are not as productive, let them free.
- Luddites wanted to destroy machines, would we have been better off now if they succeeded?
- In Nabokov’s “Ada”, electricity is banned, for the same reason as some folks plan to ban AI.
- It sounds weird now – and in a few decades, banning AI would sound as weird.
- Let us be optimists in a constructive way:
 - instead of *believing* in a better future,
 - let us *make* the future the best possible!

6. References

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