Training the Next Generation of Generative AI Specialists: Opinion

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1. Polarization: an important social problem

- What happens when you ask US folks about politics, be it internal or international?

- Most people are ignorant about it:
  - they do not know the history of the conflict,
  - they cannot even find Ukraine or Israel on the map.

- In spite of this, they have very strong opinions:
  - they naively believe that their side is absolutely right and only a villain or a naive person can believe otherwise,
  - that whatever their side does is with good intentions, and whatever the other side does is due to an evil conspiracy.

2. Polarization (cont-d)

- These views are daily strengthened by an echo chamber effect:

  – they only read and watch the news of their side,

  – whatever they hear about the other side is through their side's interpretation.

- This is how American media works – with few exceptions like NY Times, that at least report the facts.

- This polarization is a big problem for our society.

- And one of the main reasons is that people naively trust their sources of information, from media to Wikipedia.

3. Large Language Models (LLMs) are coming; moreover, they have already arrived

- Now comes yet another source: Large Language Models (LLM).

- At this moment, LLMs are less biased than media, since they are not yet individualized.

- But LLMs will becomes individualized, researchers are already working on this.

- One of the most important things to do is to *immunize students against the naive trust in their sources of information*.

4. How can we immunize students against naive trust in sources of information

- We the faculty know that on technical issues, LLMs are not perfect.

- We need to teach this to students.

- Some instructors already ask their students to get an answer from LLM and then explain what is wrong with this answer.

- In this critique, they can get help from LLM itself, by asking it for possible flaws in its answer.

- We can do beyond that: we can explicitly ask LLM to provide strong argument against what we believe in.

5. The proposed development is not completely new, but it is important

- What we propose is not completely new.

- Something like this is done at high school debate clubs.

- However, only few students go through them.

- We need to make such experiences universal.

- This will make our students more open-minded and better citizens.