"The Next Frontier" Leonardo Castorino TEDxUniversityofEdinburg Name:

After having seen the Tedtalk , answer the following questions. Make sure you make complete comprehensible sentences.

Remember it is the writing I am evaluating, thus make sure there are no grammar mistakes, and the content is relevant.

0. **What AI have you interacted with? Were they useful (did they make mistakes; did you have to correct them…) Why?**

   I mostly interacted with ChatGPT and I used it for many things as to chat in English or German and to know what level I have in both languages and I asked it, what aspects I have to improve to reach a higher language level.

   I also used ChatGPT for coding. What I normally do is, once I solved a coding problem, I ask it how to improve or optimize my code or even if there is a better way of solving it. In case I do not know how to solve a problem, I asked the AI to explain me the logic so I understand how I can do it.

   Anyway, sometimes it makes mistakes and does not fully understand what I'm asking exactly so I have to either correct it or reformulate my question.

1. **Why do you think he says, "It actually never reaches 100%, and if it does, in my experience there's usually something wrong with that" in minute 1:31? Why is it a problem (minute 9:00)? Mention the 5 of them and explain how they work.**

   I think he says that, because during the training process the machine is actually learning and can misunderstand some of those patterns and make wrong interpretations. The five points he explains are:
   - Bias: Making sure that the population is well represented through the data and doing data audits, so they know that the pattern recognition is working
   - Transparency: It is needed to know and understand why the AI makes some of its decisions and the solution for that is looking at the source code.
   - Privacy: Data must be encrypted to respect the patience's privacy and make sure we just take the data we need.
   - Accountability: In case of mistakes, there should be a person or institution responsible for these mistakes and also user feedback so the AI can learn from it
   - Safety: Once those models are deployed they must be analysed and there should be also fallback strategies where a human takes over in case of mistakes.

2 In minute 5:02, in your opinion why does he say, "hopefully with the right answer"?

It says that, because AI can make also mistakes.

3 Chat GPT makes mistakes, thus what is the solution he suggests need to be taken when that happens?

The main solution he suggests is human intervention, checking and analysing those mistakes and giving feedback to the AI so it learns also from those mistakes for future solutions.

4 What does "hallucination" refer to in this context?

In this context it means that, once the AI gives you a result and you see that there is clearly a mistake, it doesn't not provide a correction but insists with the same answer.

5 What does the host mean by "If the AI system fails, there should be a human taking over the AI"?

AI are not perfect and they do mistakes. Specially in an area such healthcare it is important that, in case of mistakes, humans (individuals or institutions) check those mistakes

6 Can you explain why he calls proteins the architects of life?

He uses this expression because proteins are part of many fundamental processes in nature such as photosynthesis, DNA replication, or creating antibodies.

7 According to what the author says in the Ted talk is there anything that implies he thinks there is going to be another crisis related to viruses? (14:09)

In my opinion the author does not think that we are going to have another crisis related to viruses, but it is logic to be aware that it might happen since viruses evolve and mutate and that AI can help us to find solutions faster.

8 The host says: "We need to be careful; we need to make sure that we know how to use AI before we deploy it" In your opinion, what are the problems associated to spreading out a technology people don't really know how it works?

The problems of using technology such AI can generate lots of scepticism in people if we can't have guaranties that our data is protected or that the analysis of the AI is correct. That's why he insists so much in human control and

supervision. Also, I believe he is also aware that there might be people who think that this technology can substitute humans or that, if this technology is deployed, it means it can't make mistakes and take as correct any solution AI gives us. I think that the main point is that we have to understand that AI is a tool, a powerful technology that humans can use to make our life easier and not to just relate on it without a second thought or be constantly sceptical about it refusing to use it, when it can be also an advantage.

https://www.youtube.com/watch?v=3PbEgLw6lJ0