By now, you are already familiar with some of the pre-dominant quality requirements (e.g., security, performance, usability, modifiability, etc.). But emerging and disruptive technologies (e.g., IoT, Blockchain, AI, Virtual Reality, etc.) are likely to bring new emerging quality requirements into the light.

Based on your readings from Chapter 12, and in your opinion, what are some of the emerging quality requirements that should be considered when dealing with these technologies? How do we deal with these quality requirements in terms of representation and satisfaction?

New technologies will always come with a new set of problems, which means new sets of requirements. A fitting technology to mention is AI. With the emergence of OpenAI’s ChatGPT, Google’s Bard, and a handful of others there will be (and I’m sure there already is) a whole piece of the industry dedicated to solving and improving quality requirements (QR) for the technology. One of these quality requirements is ethics. How can the developers be sure that the content generated by the AI is ethical? One way of dealing with this QR is to use ethical training data. Training the model with diverse data will ensure that the system doesn’t skew one way or the other when it comes to describing people, for example. IBM has a guideline for ethics in AI [here](https://www.ibm.com/topics/ai-ethics) that mentions bias and discrimination, as well other ethical concerns.

Another QR that not only AI, but other new technologies like Blockchain, will have to deal with is trustworthy. While each technology will have a different method of satisfying this requirement, they will all revolve on ensuring that the users can trust what the system is saying or doing. AI may achieve this by being transparent with their definitions of trustworthiness and their training models. The research paper “*Defining* *Quality Requirements for a Trustworthy AI Wildflower Monitoring Platform*” (Heck et. al, 2023) describes how their system attempts to prove that it is trustworthy. Blockchain technologies will have to prove to the users that’s methods are accurate. This is usually by having the users be able to verify the assertions being made by looking up the transaction history on the blockchain itself (the “ledger”).

Heck, P., & Schouten, G. (2023). Defining Quality Requirements for a Trustworthy AI Wildflower Monitoring Platform. *arXiv (Cornell University)*. https://doi.org/10.48550/arxiv.2303.13151