5 AI Ethics

Structure

In this chapter, we will discuss the following topics:

- Introduce the learner about ethical issues around Artificial Intelligence (AI).
- Deliberate and discuss about the complexities of concepts surrounding ethics (bias, access, privacy) in AI.
- List awareness points about AI bias and AI access along with the potential ethical concerns of AI.
- Debate around the pros and cons of ethical issues around AI.
- Reflect and paraphrase how the emerging trends in different fields are getting affected by AI.
- Questions and Answers

Objectives

At the end of this chapter, you should be able to:

- Understand and reflect on ethical issues around AI.
- Gain awareness around AI bias and AI access.
- Compare and contrast the societal advantages and disadvantages of AI inclusion.
- Recapitulate and reflect about the implications of AI.

In the previous chapters, we learned to identify and appreciate Artificial Intelligence and describe its applications in our daily lives. We went ahead and performed activities to relate, apply, and reflect on the Human-Machine Interactions. We also made inroads in understanding the impact of Artificial Intelligence on Sustainable Development Goals to develop responsible citizenship skills as a global citizen. It was crucial for us to imagine, examine, and reflect on the skills required for futuristic job opportunities and understand whether we have the desired skill sets

Figure 5.1: A robot

for such jobs. In this chapter, let us gain awareness about the ethical issues surrounding AI and comprehend its societal impact.

Activity 5.1: Let us watch the video in the given link and pen down our observations in the graphic organizer.

Video Link: https://youtu.be/vgUWKXVvO9Q

What have you understood from the video?

Mention a few learnings from the video.

What could be the theme heading of the discussion in the video?

What is the meaning of the content shared in the video?

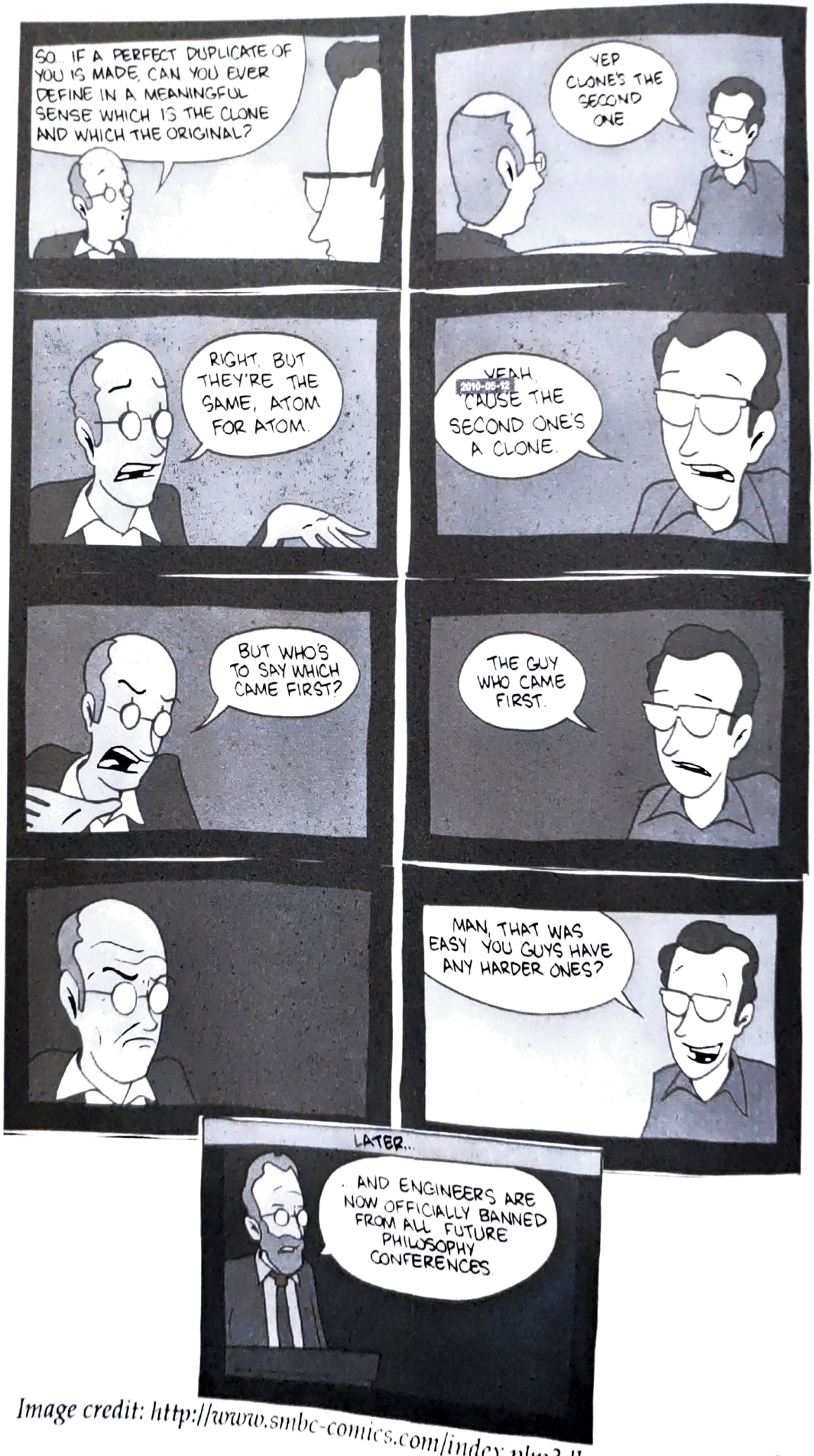

Image credit: http://www.smbc-comics.com/index.php?db=comics&id=1879

Figure 5.2: A possible conversation from future

AI Ethics

Ethics can be broadly defined as the study of values; generating moral values for good and bad, right and wrong. Ethics plays a major role in many scientific researches such as stem cell research, cloning/genetically modified food, nuclear technology, animal rights, medical trials, disease research, and bio-warfare. New technologies have unintended negative side effects. Scientists and engineers must find ways on how to handle future projects. Certain myths prevalent around the concept of AI ethics are as follows:

- People might lose their jobs to automation.
- People might have too much (or too little) leisure time.
- People might lose their sense of being unique.
- People might lose some of their privacy rights.
- The use of AI systems might result in a loss of accountability.
- The success of AI might mean the end of the human race.

Artificial Intelligence is a form of technique by means of which computers can perform cognitive tasks that could be done by only humans earlier. Working on data, making sense of data up to a point where they could help us make decisions. There are many approaches among AI. One of them is where AI

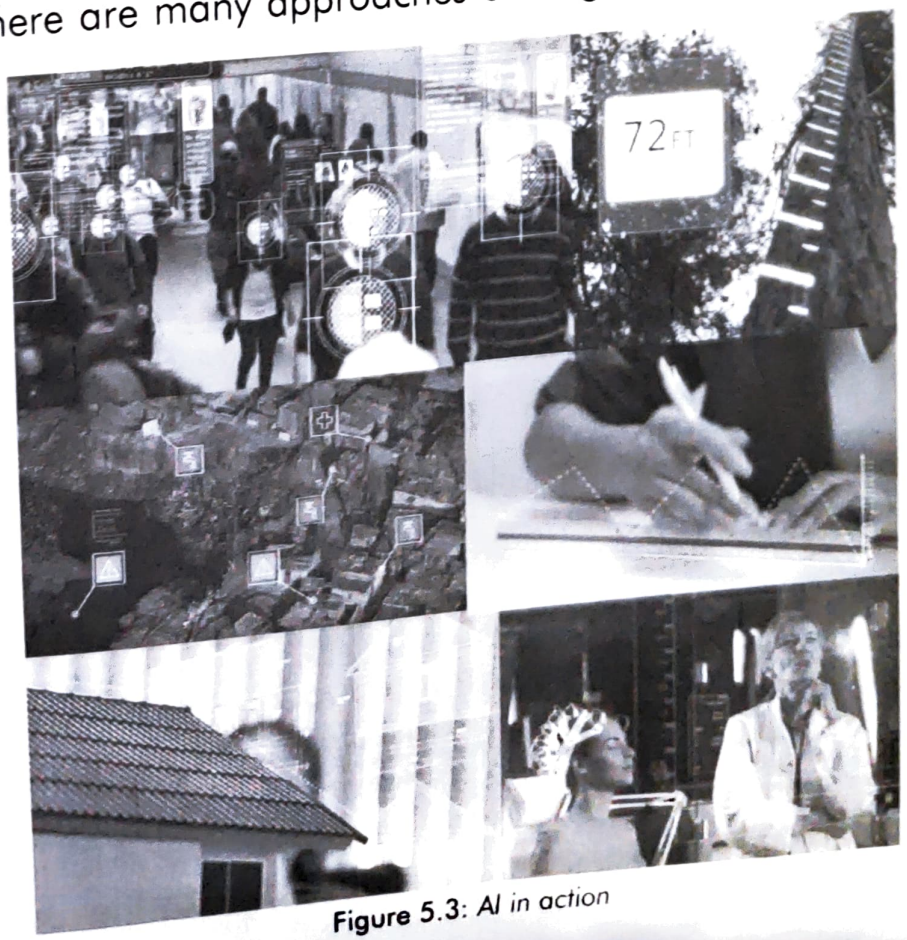

Figure 5.3: *AI in action*

focuses on data-based AI and algorithms could be written to work with AI and further interpret this data. Another approach could be knowledge and context where data could be placed in different categories. Knowledge-based approach works best for expert systems whereas data-based AI is best matched with pattern recognition, image recognition, and speech recognition.

AI bias; also referred as Machine Learning bias, is a phenomenon that occurs when an algorithm produces discriminatory results due to flawed assumptions. There could be built-in biases created by programmers who have certain preferences. These go unnoticed until the algorithms are used and magnified visibly.

Figure 5.4: AI can help solve many problems

We believe that these intelligent systems are supposed to make our life easier, but they are prone to amplify sexist and racist biases from the real world. Certain biases such as people belonging to a community are responsible for most crimes, gender requirement for some high-profile jobs or misinterpretation of social media posts due to wrong language translation by the algorithms used are just to name a few.