## Chapter 1

# The Technological Society

## Multiple Choice Questions

1. What is the term for the examination of how social factors affect technological developments?
   1. The socio-technical perspective
   2. *Technik*
   3. The technological society
   4. Social informatics
2. Which statement applies to the definition of technology as “a radical other to humanity”?
   1. It was developed in the late nineteenth century
   2. It was popular in the social sciences and humanities
   3. It focused exclusively on the material-substance aspect of technology
   4. It helped integrate the social and technical approaches of technology
3. How are artifacts defined?
   1. They are abstract understandings of the natural world that can be applied to the design and building of objects
   2. They are a part of scientific knowledge, which is abstract and consists of our understanding of the natural world.
   3. They are tools for determining the impact that technology has on society
   4. They are objects that have been modified, modelled, or produced according to a set of humanely imposed attributes
4. Layton’s model of technology embodies which three different elements?
   1. Goals, mechanisms, and strategic action
   2. Artifacts, invention, and material substance
   3. Marxism, technological inequality, and dehumanization
   4. Ideas, design, and techniques
5. What is the key limitation of Ursula Franklin’s definition of technology?
   1. Franklin’s definition rejects the idea of normalized behaviours
   2. Franklin’s definition emphasizes technology as a strategic social action
   3. Franklin’s definition neglects human agency
   4. Franklin’s definition conceptualizes technology exclusively as material substance
6. How can the German words *Zweck* and *Mittel* be translated into English?
   1. Goal and mechanism
   2. Technique and mechanism
   3. Goal and technique
   4. Action and technique
7. Which of the following most accurately outlines why it is problematic to broadly define technology as society?
   1. This definition does not allow for the study of how technology intersects with society
   2. This definition assumes that technology does not effect change in society
   3. Meaning does not exist, so any definition will be inherently problematic
   4. Viewing technology and society as a single unit forces an investigation of how they influence each other
8. What does the interrogator in a Turing Test try to determine?
   1. The intelligence quotient of the machine being tested
   2. How closely the machine physically resembles humans
   3. What the limitations are in the development of artificial intelligence
   4. Which of the game’s players is a machine, and which is a human
9. Many theorists have discussed the role of technology in society, which of the following theorists stated that “It doesn’t push things forward or transform the world, it becomes the world”?
   1. Frankle
   2. Baudrillard
   3. Heidegger
   4. Feenberg
10. What was the central concern at the heart of the Cambridge Analytica scandal?
    1. Users’ data was leaked to Russian troll farms
    2. Users’ political views were made known to third parties
    3. Psychological profiling of users was used to target political ads
    4. Data on users’ friends and purchasing behaviours was sold to third parties
11. Thinkers with an action-oriented point of view aim to identify the essence of technology by distinguishing between which two elements?
    1. Technology and technique
    2. Technology and goal
    3. Technology and societal norms
    4. Technology and the abstract state of existence
12. Jacques Ellul’s study of technology, which defines technique as a standardized means for attaining a predetermined goal in society, is similar to the viewpoint of which other scholar?
    1. Ursula Franklin
    2. Jean Baudrillard
    3. Jürgen Habermas
    4. Steve Mann
13. According to Herbert Marcuse, what did the introduction of new technologies bring about?
    1. Critical thought
    2. New standards
    3. Societal reflection
    4. New technological skills
14. Which of the following best describes a troll farm?
    1. A collective of savvy internet users who disseminate internet memes that provoke anger
    2. An organization that gathers members to create disruption and conflict online by posting provocative content and misinformation
    3. An institution that teaches students a wide range of digital skills to identify trolls and counter their political influence
    4. A collective of software developers that creates new apps and programs that are geared toward trolling behaviors
15. Which of the following is one of the five challenges present in any inquiry into the relationship between technology and society?
    1. Slow technological advances
    2. Users’ enthusiasm
    3. Integration of technology with the human body
    4. Direction and type of effect
16. Which of the following best describes what a LIDAR technology is?
    1. A robot that has the ability to pass the Turing Test
    2. An chatterbot that can simulate intelligence and emotion
    3. A remote sensing method that uses light to generate a three-dimensional representation of an object
    4. An artifact designed to augment cognitive human capabilities
17. What is the general goal of AI (artificial intelligence)?
    1. To simulate human faculties in any way or form
    2. To create machines that can serve humankind
    3. To develop technologies that can replace humans in the workforce
    4. To create super machines
18. Science fiction writers have used and adapted which of the following concepts in books and movies, originally introduced in the 1960s by Clynes and Kline?
    1. The chatterbot
    2. The smartphone
    3. The artifact
    4. The cyborg
19. What is a main characteristic of transhumanism?
    1. Creating technologies that can imitate the human mind
    2. Learning to perform complex tasks
    3. Surpassing the biological limitations of the human body
    4. Developing the ability to change body shape
20. Which of the following is the principal aim of augmentation?
    1. To move beyond the constraints of the human body
    2. To intensify human qualities
    3. To improve day-to-day human life
    4. To re-create the human experience

## True or False Questions

1. Augmentation is geared toward the development of tools that can resemble or outperform human faculties.
2. Humans continue to be better drivers than driverless cars, their reaction times are faster and their visual perception is more accurate.
3. Layton’s model of technology outlines a process of technological development in which ideas are translated into designs.
4. Ursula Franklin’s view of technology is a positive one that acknowledges human agency as an element of social change.
5. Automation is limited to production because this is the only area in which machine learning can really make a difference.
6. Another name for the Turing Test is the imitation game.
7. The technological society refers to the greater integration of technology and technological tools with human faculties.
8. Research revealed that automation has many benefits such as it is cost-efficient and problem-free.
9. Wearable computing is an example of simulation.
10. Transhumanism is to date one of the most controversial future directions of augmentation.

**Short Answer Questions**

1. Explain the concept of the cyborg.
2. Explain the Cambridge Analytica scandal and how it has affected Facebook.
3. Layton’s model of technology posits that technology embodies three different elements. Describe the three elements.
4. What is a chatbot? Give an example of one mentioned in the text.
5. What are the five principal challenges in studying technology?
   1. **Long Answer Questions**
6. Chatbots are developing quickly and becoming seamlessly integrated into everyday life. Consider how smartphone assistants like Siri can provide answers to many questions and help with scheduling. Discuss the pros and cons of chatbots.
7. We have witnessed many developments in automation in the past century and automation is becoming a part of many domains of life. An area in which automation has come to play a key role is in manufacturing. Discuss the advantages and disadvantages of automation in the workplace. Also consider if it is realistic to think that in the near future we will have fully automated workplaces?

**Answer Key**

**Multiple Choice Questions**

1. a (p. 7)
2. c (p. 5)
3. d (p. 6)
4. d (pp. 6–7)
5. c (pp. 7–8)
6. a (p. 8)
7. a (p. 9)
8. d (pp. 11–12)
9. b (p. 9)
10. c (pp. 3–4)
11. a (p. 8)
12. c (p. 8)
13. b (p. 9)
14. b (p. 3)
15. d (p. 20)
16. c (p. 18)
17. a (p. 15)
18. d (p. 15)
19. c (p. 16)
20. b (p. 14)

**True or False Questions**

1. F (p. 14)
2. F (p. 18)
3. T (pp. 6–7)
4. F (p. 7)
5. F (pp. 16–17)
6. T (p. 11)
7. T (p. 3)
8. F (p. 16)
9. F (p. 14)
10. T (p. 16)