Guided role play I

Presentation 1

Preparation for presentation and discussion 1

Read the text carefully. Make sure that you understand it well as you will be asked to use the information in giving a presentation and in participating in the discussion. Where necessary, discuss the vocabulary with your colleagues and the teacher.

Artificial superintelligence

1. Introduction

Computers are getting faster and faster. According to Ray Kurzweil, a well-known technologist, artificial intelligence (AI) is expected to surpass the intelligence of a mouse by 2015 and the intelligence of man by 2025. By 2045 AI should be equivalent to all human brains combined.

2. Artificial superintelligence

There are a lot of theories about how the superintelligences will behave. Maybe we will merge with them and become superintelligent cyborgs, maybe they will prolong our life span indefinitely, maybe we will scan our consciousness into computers and live inside them as software virtually, maybe they will attack humans and annihilate our species. All these theories have one thing in common – they all lead to something Kurzweil calls the Singularity.

3. The concept of Singularity

The Singularity denotes the transformation of our species into something completely different from their present state.The word is borrowed from astrophysics where it refers to phenomena to which the rules of ordinary astrophysics do not apply.

4. Promoters of Singularity theory

Singularity theory has attracted a number of researchers in different fields as its nature is interdisciplinary. Two institutions devote themselves fully to this theory – the Singularity University and the Singularity Institute for Artificial Intelligences, both of them co-founded by Ray Kurzweil. The Institute holds an annual conference called the Summit. AI is the main topic, but the sessions also cover the rapid progress of such fields as genetics and nanotechnology.

5. Weaknesses of Singularity theory

Most of the serious critics focus on the question of whether a computer can become fully intelligent. Currently, AIs are able to master only one highly specific domain, such as interpreting search queries or playing chess. They are intelligent but only in a narrow way. It is possible that there are things going on in our brains that can´t be duplicated electronically. Moreover, Singularity theory is not without risks. It is impossible to predict what a highly advanced artificial intelligence will do. This is one of the reasons why the Singularity Institute not only develops Singularity theory but also wants to make sure that the superintelligence is friendly to humans.

6. Conclusions

No matter whether we believe in the Singularity or not, AI will continue to develop rapidly. It´s no use trying to put off the Singularity by banning the new technologies. Such a ban would require a totalitarian system and the development would continue, uncontrolled, underground.

(Adapted from: Grossman, L., Singularity: The moment when technological change becomes so rapid and profound, it represents a rapture in the fabric of human history, Time, Feb. 21, 2011)

Give a presentation using the information from the text and the notes below. Follow the instructions in bold type. Choose phrases that are suitable for a formal occasion.

Topic 1: Artificial intelligence
Occasion: conference

Greet the participants, introduce yourself, give information on timing and questions. Introduce the topic:

Give an overview: Part 1. Introduction
Part 2. Artificial superintelligence theories
Part 3. The concept of Singularity
Part 4. Promoters of Singularity theory
Part 5. Critical views of Singularity theory
Part 6. Conclusions

Introduce Part 1
Part 1: Introduction
computers getting faster and faster
Ray Kurzweil – well-known technologist:
AI will surpass the intelligence of a mouse by 2015
man by 2025
AI will be equivalent to all human brains combined by 2045
Indicate that you have finished Part 1. and are moving on to Part 2. (use different phrases for different parts)

Part 2: Artificial superintelligence theories
lots of theories about superintelligence and its behaviour
a) people will merge with computers (superintelligent cyborgs)
b) computers will prolong our life span indefinitely
c) we will scan our consciousness into them – live in them virtually as software
d) they will attack us – annihilate us
Common feature of all these theories: they all lead to something called the Singularity by Kurzweil
Indicate that you are moving on to Part 3.

Part 3: The concept of Singularity
The Singularity = transformation of our species into beings completely different from their present state
word Singularity from astrophysics
= phenomena that rules of ordinary astrophysics do not apply to
Indicate that you are moving on to Part 4.

Part 4: Promoters of Singularity theory

Singularity theory interdisciplinary in nature – researchers in different fields
two institutions devoted fully to Singularity theory: The Singularity University
The Singularity Institute for Artificial Intelligences
Kurzweil – co-founder
the Singularity Institute – annual conference called Summit:
Singularity theory + other rapidly developing fields (genetics, nanophysics)

Indicate that you are moving on to Part 5.

Part 5: Critical views of Singularity theory

currently : computers able to master one specific domain (interpreting search queries, playing chess)
a fully intelligent computer at some point in the future ????
maybe never – can all processes in our brains be duplicated electronically ???
impossible to predict the behaviour of artificial superintelligence
objective of the Singularity Institute: not only to develop artificial intelligence but also make sure it is friendly to humans

Indicate that you are moving on to Part 6.

Part 6: Conclusions

AI – rapid development will continue no matter whether we believe in the Singularity or not
not possible to put off the Singularity by banning new technologies
ban possible only in a totalitarian system
new technologies would continue underground – without control

Indicate that this is the end of your presentation and thank the audience

Invite questions

Discussion 1

You are expected to ask the speaker questions and make comments on what you have heard. Some suggestions for questions and comments are given below.

1. You want to know whether the speaker has met Ray Kurzweil in person.

2. You do not understand the word cyborg.

3. You didn´t quite catch the last two theories the speaker mentioned.
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4. You want to know whether the speaker would like to live indefinitely. You wouldn´t. Give reasons.

5. You want to know what the speaker thinks about living in a computer as software.

6. You think that all the theories are rubbish. The only one that seems realistic to you is the last one – the one about the annihilation of the human race. Say why.

7. You hope to live to see the transformation of the human race because you have an inquisitive mind. Give some ideas on what the transformed human being will be like.

8. You don´t agree with the speaker that the word Singularity was borrowed from astrophysics. You know the word as a mathematical term meaning “singular point”.

9. You don´t understand in what way the Singularity is interdisciplinary. You need some explanation.

10. You want to know how the two institutions the speaker has mentioned are funded. Hopefully not from taxpayers´money.

11. Tell the speaker and the audience that you believe in the Singularity. Say why.

12. You know that new technologies are not harmful in themselves, but can become harmful through wrong use. You want to know what can be done to prevent that from happening.

13. Tell the speaker that you found the presentation both interesting and stimulating. You would like to learn more about the subject. Ask if the speaker can refer you to some literature.