

---

## **Can we build AI without losing control over it?**

[listening test questions]

**Author:** Sam Harris

**Date:** June 2015

**Time:** (14:27)

**Level:** \*\*\*\* \* [C1]

**TED TALKS Link:**

[https://www.ted.com/talks/sam\\_harris\\_can\\_we\\_build\\_ai\\_without\\_losing\\_control\\_over\\_it](https://www.ted.com/talks/sam_harris_can_we_build_ai_without_losing_control_over_it)

Check these words before listening:

### **Key vocabulary**

1. Intuition
2. A global famine
3. Catastrophe
4. Science fiction,
5. to marshal an appropriate emotional response
6. Automation
7. An asteroid
8. Malicious
9. Divergence
10. Competent
11. To annihilate
12. Inevitable
13. Assumptions
14. To be far-fetched
15. Crucial
16. Exponential progress
17. Precarious
18. Unreliable
19. John von Neumann (famous physicist & Mathematician)
20. A spectrum
21. MIT
22. A trillionaire
23. To go berserk
24. Silicon Valley
25. Unprecedented power
26. The Simpsons
27. A Manhattan Project
28. An arms race

**Copyright:** These materials are photocopiable but please leave all logos and web addresses on handouts. Please don't post these materials onto the web. Thank you

# Student

## TED Talks Test Questions

**Time:** *Approximately 1- 1:30 hours*

### 1. Read the title

- Try to predict the content of lecture
- Write down key terms / ideas
- Check key vocabulary using a dictionary

Try to listen ONLY two times

### Three types of lesson

#### **Lesson#1:** [hard]

1. Listen once – take notes
2. Give 5 minutes to tidy notes
3. Listen again and add to notes (use a different **colour** pen).
4. Answer questions – set 20-25 minutes to answer.
5. Check answers
6. Listen again to check answers

#### **Lesson #2:** [medium]

1. Listen once – take notes.
2. Answer questions: 10-15 minutes
3. Listen again – answer the questions as they listen
4. Give yourself 10 minutes to tidy answers. Then check answers
5. Listen again to check answers

#### **Lesson #3:** [easier]

1. Read questions – highlight key terms
2. listen once and answer questions
3. 5 minutes to tidy notes
4. Listen again answer missed question
5. 5-10 minutes to tidy answers. Then check answers
6. Listen again to check answers

# Teacher

## TED Talks comprehension questions

### Lesson Plan

**Aim:** to develop the students' ability to listen to a 10 min+ lecture, to take notes and then use those notes to answer a range of test type questions.

**Lesson Time:** Approximately 1:30-2:00 hours

### Lesson Plan

#### 1. Lead in

- Ask Students to discuss the 'title' and predict the content of lecture
- Ask students to write down key terms / language from discussion
- Feed in / check key vocabulary

#### Three types of lesson

##### **Lesson#1:** [hard]

1. Students listen once – take notes
2. Give 5 minutes to tidy notes
3. Listen again and add to notes (use a different **colour** pen).
4. Give out questions – set 20-25 minutes to answer.
5. Feedback answers (give out answers or go through on board)

##### **Lesson #2:** [medium]

1. Students listen once – take notes.
2. Give out questions: Set 15 minutes for students to answer questions from notes
3. Listen again – students answer the questions as they listen
4. Give extra 10 minutes to consolidate answers
5. Feedback answers (give out answers or go through on board)

##### **Lesson #3:** [easy]

1. Give out questions - students have 10 minutes to look at questions
2. Students listen and answer questions
3. Give 5 minutes to tidy notes
4. Students listen again – check answers and answer questions missed
5. 5-10 minutes to tidy answers
6. Feedback answers (give out answers or go through on board)

## Can we build AI without losing control over it?

TED TALK: Sam Harris [Jun 2016. 14:27]

### 1.Introduction: True / False / Not Given

T / F / NG

i. The lecturer claims we are all worried about A.I in the future	
ii. The lecturer believes A.I will destroy all of us	
iii. The lecturer believes A.I will take over the world	
iv. Most of us find A.I fun to think about	
v. A.I will cause global famine	
Vi. We are able to marshal an emotional response to the future of A.I	

\_\_\_ / 6

### 2. The two doors scenario – short answers

<b>Door 1</b>	
<b>What is behind the 1<sup>st</sup> door?</b>	<b>What could stop this from happening?</b> (2 reasons)
i. _____ _____ _____ _____	i. A full-scale nuclear war  ii. _____ iii. _____
<b>The overall point is:</b>	i. to stop A.I .. _____ _____

\_\_\_ / 4

<b>Door 2</b>	
<b>What is behind the second door?</b>	<b>What will happen?</b>
i. _____ _____ _____	ii. <i>If we build machines that are smarter than we are, they will begin to i _____ themselves .</i>

<b>A scientific term:</b>	iii. <i>Mathematicians call this process of being not in control; "i _____ e _____".</i> [2 points]
<b>The main concern is that these competent machines..</b>	iv. could _____ us
<b>Which insect does he refer to in order to consolidate this point?</b>	v. _____

\_\_\_ / 6

### 3. Three main assumptions – short answers

Assumption 1	
Idea	Development
i. _____ _____ _____	ii. <i>g _____ i _____ is when a machine can think flexibly across multiple domains –</i> [2 points]
<b>Overall point:</b>	iii. <i>It's crucial to realize that the rate of progress doesn't matter, because _____</i> _____ _____

\_\_\_ / 4

Assumption 2	
Idea	Development
i. _____ _____ _____	ii. <i>We need to improve our u _____ as it is a valuable resource.</i>
<b>Overall point - We have problems to solve:</b>	<i>We want to cure diseases like iii) c _____ and improve our iv) c _____ science</i>
<b>Idiom expression:</b> vi. <i>'the train is out of the station and there's no b _____ to pull.'</i>	

\_\_\_ / 6

Assumption 3	
Idea	Development
i. _____ _____ _____	<i>This is what makes our situation so ii) p_____, and this is what makes our intuitions about risk so iii) u_____</i>
<b>The spectrum of intelligence:</b>	<i>Machines will iv) e_____ this spectrum in ways that we can't imagine, and v) e_____ us in ways that we can't imagine.</i>
<b>The virtue of speed in electronic circuits:</b> What do these numbers refer to?	A million times faster: vi) _____  20,000 years: vii) _____ _____

\_\_\_ / 7

#### 4. Summary – [put a suitable word in the gap – first letter of word is provided]

##### The future with A.I

Imagine the best case scenario a super-intelligent A.I design with no safety concerns. It could redesign itself to be the perfect i) l\_\_\_\_\_ - s\_\_\_\_\_ device. It could end most basic jobs and at the same time many ii) i\_\_\_\_\_ jobs too. The main concern is what would happen to the main iii) e\_\_\_\_\_ and political order. We would witness wealth inequality and high levels of iv) u\_\_\_\_\_ never experienced before. There would be a few v) t\_\_\_\_\_ and the rest of us would starve.

\_\_\_ / 5

#### 5. Multiple Choice:

##### i. Russian and Chinese – choose only one

a) The Russians and Chinese want to wage war
b) The Russians and Chinese are 6 months in front of the competition with A.I
c) The Russians and Chinese will do anything to be the leaders in A.I
d) none of the above

\_\_\_\_ / 1

ii. **One of the most frightening things is...** – choose only one

- |   |
|---|
| a) A.I researchers are lying about how close they are to super-intelligent A.I.           |
| b) A.I researchers are often telling us super-intelligent A.I is far off and not to worry |
| c) A.I researchers do not realise how dangerous it is                                     |
| d) A.I researchers think we will populate Mars before A.I is invented                     |

\_\_\_\_ / 1

iii. **Another frightening point is...** – choose only one

- |   |
|---|
| a) We are not ready and have no idea of the safety parameters         |
| b) We have an urgency to create super-intelligent A.I                 |
| c) We are ready for aliens but not for super-intelligent A.I          |
| d) 50 years is not enough time to get ready for super-intelligent A.I |

\_\_\_\_ / 1

vi. **Implanting A.I technology into our brains** (neuroscience) – choose only one

- |  |
|--|
| a) this is the safest option   |
| b) super-intelligent A.I and neuroscience is less likely than just basic super-intelligent A.I |
| c) this technology will help A.I machines share our common values                              |
| d) all the above   |

\_\_\_\_ / 1

## 6. Summary – [put a suitable word in the gap]

### Possible solution

A.I will be inevitably built. There is so much to consider when you are creating super-intelligent machines that can make i) \_\_\_\_\_ to itself. We need something like a ii) \_\_\_\_\_ Project on the topic of artificial intelligence especially to avoid an iii) \_\_\_\_\_ race. We also need to admit that the horizon of iv) \_\_\_\_\_ far exceeds what we currently know and we are in the process of building some kind of v) \_\_\_\_\_. Is this something we can live with?

\_\_\_\_ / 5

**Total score:** \_\_\_\_ / 47

## Can we build AI without losing control over it? **ANSWERS**

### 1. Introduction: T/F/NG

i. The lecturer claims we are all worried about A.I in the future <i>No we think it's fun</i>	<b>F</b>
ii. The lecturer believes A.I will destroy us	<b>T</b>
iii. The lecturer believes A.I will take over the world	<b>NG</b>
iv. Most of us find A.I fun to think about	<b>T</b>
v. A.I will cause global famine	<b>NG</b>
Vi. We are able to marshal an emotional response to the future of A.I <i>We can't seem to marshal a response</i>	<b>F</b>

\_\_\_ / 6

### 2. The two doors scenario – short answers

<b>Door 1</b>	
<b>What is behind the 1<sup>st</sup> door?</b>	<b>What could stop this from happening? (2 reasons)</b>
i. stop making progress in building intelligent machines  Our computer hardware and software just stops getting better for some reason	i. A full-scale nuclear war? ii. A global pandemic? iii. An asteroid impact? iv. Justin Bieber president of the United States?  (any 3, any order)
<b>The overall point is:</b>	i. to stop A.I -something would have to destroy civilization as we know it

\_\_\_ / 4



<b>Door 2</b>	
<b>What is behind the second door?</b>	<b>What will happen?</b>
i. We continue to improve our intelligent machines year after year after year	ii. will build machines that are smarter than we are, and this will lead to..., <b>they will begin to improve themselves</b>
<b>A scientific term:</b>	iii. Mathematicians call this process of being not in control " <b>intelligence explosion</b> ".
<b>The main concern is that these competent machines could....</b>	iv. destroy us
<b>Which insect does he refer to in order to consolidate this point?</b>	v. ants

\_\_\_ / 5

### 3. Three main assumptions – short answers

<b>Assumption 1</b>	
<b>Idea</b>	<b>Development</b>
i. Intelligence is a matter of information processing in physical systems.	ii. <b>general intelligence</b> is when a machine can think flexibly across multiple domains –
<b>Overall point:</b>	iii. It's crucial to realize that the rate of progress doesn't matter, because <b>any progress is enough to get us into the end zone.</b>

\_\_\_ / 3

<b>Assumption 2</b>	
<b>Idea</b>	<b>Development</b>
i. is that we will keep going. We will continue to improve our intelligent machines	ii. <i>We need to improve our <b>understanding</b> as it is a valuable resource.</i>
<b>Overall point</b>	<i>We want to cure diseases like iii) <b>cancer</b> and improve our iv) <b>climate</b> science</i>
<b>Idiom expression:</b> iv. the train is out of the <b>station</b> and there's no <b>brake</b> to pull.	

\_\_\_ / 4

<b>Assumption 3</b>	
<b>Idea</b>	<b>development</b>
i. we don't stand on a peak of intelligence, or anywhere near it	This is what makes our situation so ii. <b>precarious</b> , and this is what makes our intuitions about risk so iii. <b>unreliable</b>
The spectrum of intelligence:	Machines will iv. <b>explore</b> this spectrum in ways that we can't imagine, and v. <b>exceed</b> us in ways that we can't imagine.
The virtue of speed in electronic circuits:	vi. a million times faster: <b>than biochemical ones</b> vii. 20,000 years <b>of human-level intellectual work in a week</b>

\_\_\_ / 7

#### **4. Summary – the future with A.I**

Imagine the best case scenario a super-intelligent A.I design with no safety concerns. It could redesign itself to be the perfect i. **labour-saving** device. It could end most basic jobs and at the same time many ii. **intellectual** jobs too. The main concern is what would happen to the main iii. **economic** and political order. We would witness wealth inequality and high levels of iv. **unemployment** never experienced before. There would be a few v. **trillionnaires** and the rest of us would starve.

\_\_\_ / 6

#### **5. Multiple Choice:**

i. **Russian and Chinese** – choose the correct one

a) The Russians and Chinese want to wage war
B) The Russians and Chinese are 6 months in front of the competition with A.I
<b>c) The Russians and Chinese will do anything to be the leaders in A.I</b>
d) none of the above

\_\_\_ / 1

ii. **One of the most frightening things is..** – choose the correct one

a) A.I researchers are lying about how close they are to super-intelligent A.I.
<b>b) A.I researchers are often telling us super-intelligent A.I is far off and not to worry</b>
c) A.I researchers do not realise how dangerous it is
d) A.I researchers think we will populate Mars before A.I is invented

\_\_\_ / 1

iii. Another frightening point is... – choose one

a) <u>We are not ready and have no idea of the safety parameters</u>
b) We have an urgency to create super-intelligent A.I
c) We are ready for aliens but not for super-intelligent A.I
d) 50 years is not enough time to get ready for super-intelligent A.I

\_\_\_ / 1

vi. Implanting A.I technology into our brains (neuroscience)

a) this is the safest option
b) super-intelligent A.I and neuroscience is less likely than just basic super-intelligent A.I
c) this technology will help A.I machines share our common values
d) <u>all the above</u>

\_\_\_ / 1

## 6. Summary – possible solution

A.I will be inevitably built. There is so much to consider when you are creating super-intelligent machines that can make i. **changes** to itself. We need something like a ii.

**Manhattan** Project on the topic of artificial intelligence especially to avoid an iii. **arms** race.

We also need to admit that the horizon of iv. **cognition** far exceeds what we currently know and we are in the process of building some kind of v. **God**. Is this something we can live with?

\_\_\_ / 5

Total score: \_\_\_ / 44