

The Turing test: Can a computer pass for a human? - Alex Gendler



<https://youtu.be/3wLqsRLvV-c>

Summary

The text is discussing the Turing test, which is a measure of a machine's ability to demonstrate intelligent behavior that is indistinguishable from that of a human. The test was proposed by Alan Turing in 1950 to determine whether a machine can truly be considered intelligent.

The text talks about the history of the Turing test, how it was proposed and its evolution over time, and the challenges it poses. The text also highlights the success and failures of early programs such as ELIZA and PARRY and more recent ones like Cleverbot in passing the test.

It also talks about the limitations of the test and the complexity of human language which makes it challenging for computers to pass the test.

The text concludes by saying that as we get closer to Turing's goal, we may have to deal with all those big questions about consciousness after all.

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What is consciousness? Can an _____ (1) really think? Does the mind just consist of _____ (2) in the brain, or is there some intangible spark at its core? For many, these have been vital considerations for the future of artificial intelligence.

But British computer scientist Alan Turing decided to disregard all these questions in favor of a much simpler one: can a computer talk like a human?

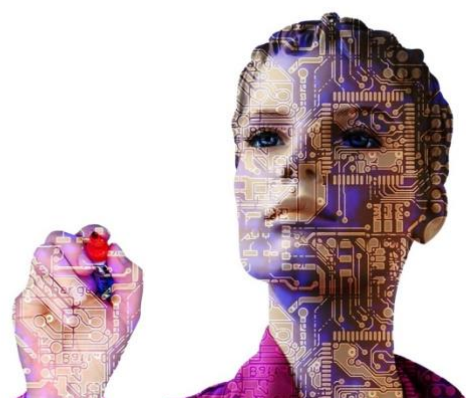
This question led to an idea for measuring artificial intelligence that would famously come to be known as the _____ (3).

In the 1950 paper, "Computing Machinery and Intelligence," Turing proposed the following game. A human _____ (4) has a text conversation with unseen players and evaluates their responses.

To pass the test, a computer must be able to replace one of the players without substantially changing the results. In other words, a computer would be considered intelligent if its conversation couldn't be easily distinguished from a human's.

Turing predicted that by the year 2000, machines with 100 megabytes of memory would be able to easily pass his test.

But he may have jumped the gun. Even though today's computers have far more _____ (5) than that, few have succeeded, and those that have done well focused more on finding clever ways to fool judges than using overwhelming _____ (6).



Though it was never subjected to a real test, the first program with some claim to success was called ELIZA. With only a fairly short and simple script, it managed to mislead many people by _____ (7) a psychologist, encouraging them to talk more and reflecting their own questions back at them.

Another early script PARRY took the opposite approach by _____ (8) a paranoid schizophrenic who kept steering the conversation back to his own preprogrammed obsessions.

Their success in fooling people highlighted one _____ (9) of the test. Humans regularly attribute intelligence to a whole range of things that are not actually intelligent.



Nonetheless, annual competitions like the Loebner Prize, have made the test more formal with judges knowing ahead of time that some of their conversation partners are machines

But while the quality has improved, many _____ (10) programmers have used similar strategies to ELIZA and PARRY.

1997's winner Catherine could carry on amazingly focused and intelligent conversation, but mostly if the judge wanted to talk about Bill Clinton.

And the more recent winner Eugene Goostman was given the persona of a 13-year-old Ukrainian boy, so judges interpreted its nonsequiturs and awkward grammar as language and culture barriers.

Meanwhile, other programs like Cleverbot have taken a different approach by _____ (11) analyzing huge _____ (12) of real conversations to determine the best responses.

Some also store memories of previous conversations in order to improve over time.

But while Cleverbot's individual responses can sound incredibly human, its lack of a consistent

_____ (13) and inability to deal with brand new topics are a dead giveaway.

Who in Turing's day could have _____ (14) that today's computers would be able to pilot spacecraft, perform delicate surgeries, and solve massive equations, but still struggle with the most basic small talk?

Human _____ (15) turns out to be an amazingly complex phenomenon that can't be captured by even the largest dictionary.

Chatbots can be baffled by simple pauses, like "umm..." or questions with no correct answer.

And a simple _____ (16) sentence, like, "I took the juice out of the fridge and gave it to him, but forgot to check the date," requires a wealth of underlying _____ (17) and intuition to parse.

It turns out that _____ (18) a human conversation takes more than just increasing memory and _____ (19) power, and as we get closer to Turing's goal, we may have to deal with all those big questions about _____ (20) after all.

(number)	word
(1)	artificial machine
	chatbot
	computing power
	consciousness
	conversational
	databases
	imitating
	judge
	knowledge
	language
	memory
	mimicking
	neurons
	personality
	predicted
	processing
	simulating
	statistically
	Turing test
	weakness

Quiz

1. Who proposed the Turing test?

- a) Christopher Nolan
- b) Alex Garland
- c) Denis Villeneuve
- d) Alan Turing

2. What is the main goal of the Turing test?

- a) To determine if a machine can truly be considered intelligent
- b) To measure a machine's ability to pass as a human in a text conversation
- c) To evaluate the capabilities of AI systems
- d) All of the above

3. What was the main focus of Turing's 1950 paper "Computing Machinery and Intelligence"?

- a) The mind's relationship with neurons in the brain
- b) The nature of consciousness
- c) The ability of a computer to talk like a human
- d) The future of artificial intelligence

4. In the Turing test, what is the role of the human evaluator?

- a) To have a text conversation with unseen players and evaluate their responses
- b) To determine if a machine is truly conscious
- c) To provide a human perspective for a machine's development
- d) To compare the responses of the unseen players to see if they are easily distinguishable

5. What was Turing's prediction about the year 2000 and the ability of machines to pass the Turing test?

- a) By the year 2000, machines would not be able to pass the Turing test
- b) By the year 2000, machines with 100 megabytes of memory would be able to easily pass the Turing test
- c) By the year 2000, machines would be able to pass the Turing test but with a low accuracy
- d) By the year 2000, machines would be able to pass the Turing test but only if they are given a specific script

6. How have early programs such as ELIZA and PARRY been successful in the Turing test?

- a) By using clever ways to fool judges
- b) By using overwhelming computing power
- c) By mimicking a psychologist and a paranoid schizophrenic respectively
- d) By statistically analyzing huge databases of real conversations

7. What are the weaknesses of the Turing test according to the text?

- a) It is too easy for machines to pass
- b) It is too difficult for machines to pass
- c) It does not consider human biases in interpreting intelligence
- d) It does not consider the complexity of human language

8. Why is it difficult for chatbots to simulate human conversation according to the text?

- a) It requires a lot of memory and processing power
- b) It requires a consistent personality and ability to deal with new topics
- c) It requires an understanding of the complexity of human language
- d) All of the above

9. What is the difference between the approach of programs like ELIZA and PARRY and the approach of Cleverbot in the Turing test?

- a) ELIZA and PARRY mimic a specific person while Cleverbot uses statistical analysis
- b) ELIZA and PARRY use clever ways to fool judges while Cleverbot uses overwhelming computing power
- c) ELIZA and PARRY use a short and simple script while Cleverbot uses a huge database of real conversations
- d) ELIZA and PARRY use a consistent personality and ability to deal with new topics while Cleverbot lacks it

10. What is the main idea behind the text?

- a) The evolution of the Turing test
- b) The difficulties of simulating human conversation with chatbots
- c) The challenges of measuring artificial intelligence
- d) All of the above

Answers

Your name:

	a	b	c	d		a	b	c	d
1					6				
2					7				
3					8				
4					9				
5					10				

Glossary



English	Spanish
1. ability	habilidad
2. accuracy	precisión
3. algorithm	algoritmo
4. approach	enfoque
5. artificial intelligence	inteligencia artificial
6. automation	automatización
7. baffled	desconcertado
8. barriers	barreras
9. behaviour	comportamiento
10. big data	big data
11. brain	cerebro
12. challenge	desafío, reto
13. chatbot	chatbot
14. clever	astuto, listo
15. cognitive	cognitivo
16. compare	comparar
17. competition	concurso
18. complexity	complejidad
19. computer scientist	ingeniero en informática
20. computer vision	visión computacional
21. consciousness	conciencia
22. consistent	consistente
23. conversation	conversación
24. data mining	minería de datos
25. database	base de datos
26. deal with	lidiar/tratar con
27. deep learning	aprendizaje profundo
28. demonstrate	demostrar
29. determine	determinar
30. discuss	discutir
31. easily	fácilmente
32. evaluate	evaluar
33. evolution	evolución
34. evolve	evolucionar
35. expert system	sistema experto
36. failure	fracaso
37. fool	engañar
38. future	futuro
39. game	juego
40. goal	objetivo
41. grammar	gramática
42. human	humano
43. imitate	imitar

44. improve	mejorar
45. increase	aumentar
46. indistinguishable	indistinguible
47. intelligence	inteligencia
48. intelligent	inteligente
49. intuition	intuición
50. judge	juez
51. knowledge	conocimiento
52. language	lenguaje
53. learning	aprendizaje
54. limitation	limitación
55. machine	máquina
56. machine learning	aprendizaje automático
57. measure	medir
58. memory	memoria / recuerdo
59. mimic	imitar
60. mind	mente
61. mislead	engañar
62. modeling	modelado
63. natural language processing	procesamiento del lenguaje natural
64. network	red
65. neural network	red neuronal
66. neuron	neurona
67. parse	analizar
68. partners	compañeros
69. pass	pasar
70. personality	personalidad
71. power	poder
72. predict	predecir
73. processing	procesamiento
74. processing power	potencia de procesamiento
75. program	programa
76. propose	proponer
77. psychologist	psicólogo
78. range	rango
79. reflect	reflexionar
80. replace	reemplazar
81. require	requerir, necesitar
82. response	respuesta
83. robotics	robótica
84. role	papel
85. script	guion
86. simulate	simular
87. small talk	charla trivial
88. statistical analysis	análisis estadístico
89. strategy	estrategia
90. success	éxito
91. successful	exitoso
92. test	probar
93. think	pensar
94. topic	tema
95. Turing test	prueba de Turing
96. underlying	subyacente
97. understand	comprender
98. unseen	no vistos, ocultos
99. weakness	debilidad
100. winner	ganador