



Revolutionary Brain Implant Translates Thoughts into Speech Instantly!

Description

A woman in the US who had a stroke 20 years ago can now speak again thanks to a new technology. Scientists used her brain signals to make a computer program that turns her thoughts into words instantly. This helps her talk without any delay. Before this, people had to wait a long time to use similar devices.

Some people cannot speak because of brain problems. But new technology like this can help them communicate. It works faster than older methods by analyzing the brain's signals quickly. The woman was able to speak without actually saying anything out loud, just by thinking.

Even though there is more work to do before this technology can be used widely, it is improving quickly. Soon, more people who cannot talk might have a way to communicate using their thoughts. This is a big step forward for science and helping people with disabilities.

Vocabulary List:

1. **Stroke** /stroʊk/ (noun): A sudden interruption of blood flow to the brain causing loss of function or death of brain tissue.
2. **Technology** /tek'nɒ:lədʒi/ (noun): The application of scientific knowledge for practical purposes.
3. **Communicate** /kə'mjʊnɪ,keɪt/ (verb): To share or exchange information news or ideas.
4. **Disabilities** /'ænə,laɪz/ (verb): To examine in detail for purposes of explanation and interpretation.
5. **Analyze** /'ɪnstəntli/ (adverb): Without any delay; immediately.
6. **Instantly** /dɪsə'bɪlɪtɪz/ (noun): Physical or mental conditions that limit a person's movements senses or activities.

Comprehension Questions

Multiple Choice

1. What is the new technology that helped a woman in the US speak again after having a stroke?

Option: Brain surgery

Option: Speech therapy

Option: Computer program that turns thoughts into words instantly

Option: Physical therapy



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2. How long ago did the woman in the US have a stroke?
- Option: 10 years
 - Option: 15 years
 - Option: 20 years
 - Option: 25 years
3. What can some people not do because of brain problems?
- Option: Speak
 - Option: See
 - Option: Walk
 - Option: Hear
4. What journal published the study about the new technology?
- Option: Science
 - Option: Nature Neuroscience
 - Option: Technology Today
 - Option: Medical Journal
5. How does the new technology help people communicate?
- Option: By writing letters
 - Option: By analyzing brain signals quickly
 - Option: By sending signals through the body
 - Option: By speaking out loud
6. What type of delay does the new technology help eliminate?
- Option: Touch delay
 - Option: Speech delay
 - Option: Reaction delay
 - Option: Movement delay

True-False

7. The new technology allows people to communicate using their thoughts without speaking out loud.
8. The woman in the US had her stroke 15 years ago.
9. The new technology works slower than older methods.



10. More work needs to be done before the new technology can be widely used.
11. The new technology is not a significant advancement for science and helping people with disabilities.
12. The woman in the US had brain surgery to help her speak again after the stroke.

Gap-Fill

13. The woman in the US can now speak again thanks to a new technology after having a stroke _____ years ago.
14. Some people cannot speak due to _____ problems.
15. The study about the new technology was published in the journal _____.
16. The new technology helps people with disabilities by allowing them to communicate using their _____.
17. The new technology is a significant step forward for _____.
18. The woman was able to speak without actually saying anything out loud, just by _____.

Answer

Multiple Choice: 1. Computer program that turns thoughts into words instantly 2. 20 years 3. Speak 4. Nature Neuroscience 5. By analyzing brain signals quickly 6. Speech delay

True-False: 7. True 8. False 9. False 10. True 11. False 12. False

Gap-Fill: 13. 20 14. brain 15. Nature Neuroscience 16. thoughts 17. science 18. thinking

Vocabulary quizzes

Multiple Choice (Select the Correct answer for each question.)

1. What can cause mutations in DNA and lead to cancer?



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- Option: Radiation
Option: Debris
Option: Satellites
Option: Ecosystems
2. What can be used to communicate instantly across the globe?
- Option: Strokes
Option: Technology
Option: Promotion
Option: Habitat
3. Where is biodiversity essential for maintaining balance?
- Option: Production
Option: Ecosystems
Option: Risks
Option: Unsafe
4. What leads to habitat destruction and pollution?
- Option: Significant
Option: Urbanization
Option: Risks
Option: Orbits
5. What can render satellites unsafe for operation?
- Option: Radiation
Option: Debris
Option: Collisions
Option: Promising
6. In what setting are hormonal imbalances often diagnosed and treated?
- Option: Clinical
Option: Reaction
Option: Exposure
Option: Analyzing
7. Why is it necessary to be able to detect radiation exposure?
- Option: Reaction
Option: Detection
Option: Orbits
Option: Biodiversity
8. What kind of technology development offers new solutions?
- Option: Promising
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- Option: Eager
- Option: Analyzing
- Option: Risks

9. Why is it important to analyze the effects of certain exposures on disabilities?

- Option: Disabilities
- Option: Stroke
- Option: Instantly
- Option: Habitat

10. What could happen to species due to habitat loss and urbanization?

- Option: Pollution
- Option: Extinct
- Option: Biodiversity
- Option: Technology

Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

11. When individuals are _____ to radiation it can have harmful effects on their health.
12. Proper monitoring of radiation levels is _____ for ensuring safety in nuclear facilities.
13. _____ data from clinical studies helps in understanding the impact of certain factors on health.
14. Advancements in technology allow us to communicate _____ with anyone around the world.
15. Assessing the potential _____ associated with a certain activity is crucial for decision-making.
16. Space missions have to consider the risks of collisions with _____ in orbit.
17. Satellites are placed in specific _____ around the Earth to perform their functions.
18. Managing waste and pollution from industrial _____ is essential for environmental



protection.

19. Certain medical conditions are treated with _____ therapy to restore balance in the body.

20. Understanding the body's _____ to different stimuli is crucial in medical research.

Matching Sentences (Match each definition to the correct word from the vocabulary list.)

21. A stroke can result from a disruption of blood flow to the brain leading to potential brain damage.
22. Urbanization often results in increased pollution levels impacting the quality of air and water.
23. Debris orbiting Earth poses a significant risk to satellites in operation potentially causing collisions.
24. Habitat destruction contributes to the decline in biodiversity affecting various species and ecosystems.
25. Exposure to certain chemicals or substances can render a workplace unsafe for employees requiring safety measures.
26. In medical emergencies a quick and appropriate reaction to the situation can significantly impact the outcome.
27. The destruction of natural habitats due to human activities threatens many species with extinction.
28. A significant increase in temperature can have far-reaching effects on polar ice caps and global weather patterns.
29. Scientists and researchers are eager to explore new technologies to address pressing social and environmental issues.
30. Efficient communication is essential in emergency response situations to coordinate actions effectively.

Answer

Multiple Choice: 1. Radiation 2. Technology 3. Ecosystems 4. Urbanization 5. Collisions 6. Clinical 7. Detection 8. Promising 9. Disabilities 10. Extinct

Gap-Fill: 11. Exposed 12. Necessary 13. Analyzing 14. Instantly 15. Risks 16. Debris 17. Orbits 18. Production



19. Hormonal 20. Reaction

Matching sentence: 1. Stroke 2. Pollution 3. Satellites 4. Biodiversity 5. Unsafe 6. Reaction 7. Habitat
8. Significant 9. Eager 10. Communication

CATEGORY

1. Health - LEVEL2

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