# Artificial Intelligence

What makes virtual assistants like Amazon's Alexa, Apple's Siri, and Google Assistant smart? What's the main technology that helps them understand and respond to your commands?

- a) Quantum computing
- b) Augmented reality
- c) Machine learning
- d) Blockchain

c) Machine learning

### Intelligence

What AI technology suggests movies or TV shows based on what you like? Think about apps or platforms that predict your preferences and recommend entertainment choices

- a) Google Search
- b) Waze navigation app
- c) Netflix recommendation system
- d) WhatsApp messaging app

c) Netflix recommendation system

What's the name of the super-smart computer that won against human champions on the TV show 'Jeopardy!' in 2011?

- a) Deep Blue
- b) AlphaGo
- c) Watson
- d) Siri

c) Watson

What's the name of the Al tool that looks at huge amounts of data to find suspicious patterns and protect against fraud and online threats?

- a) Sentiment analysis
- b) Reinforcement learning
- c) Natural language processing
- d) Machine learning anomaly detection

d) Machine learning anomaly detection

In the realm of finance, AI is used for "algorithmic trading". What does this application involve?

- a) Predicting weather patterns for agricultural trading
- b) Using AI to develop investment strategies
- and execute high-frequency trades c) Forecasting stock market trends based on lunar cycles
- d) Automating customer service in banks

b) Using AI to develop investment strategies and execute high-frequency trades

What's the area of AI that helps computers understand and use human language effectively? It's all about making computers 'get' us hetter. What's this branch called?

- a) Natural Language Processing (NLP)
- b) Machine Learning
- c) Computer Vision
- d) Robotics

a) Natural Language Processing (NLP)

How do smart cars, like the ones made by Tesla, know where to go and how to drive? They use a specific kind of technology for navigation and decision-making. What's it called?

a) LiDAR sensors

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- b) Radar-based sonar
- c) GPS tracking
- d) Manual steering

a) LiDAR sensors

#### Artificial Intelligence

When shopping online, sites like
Amazon suggest products you might
like using a special AI technique
called collaborative filtering. What
does collaborative filtering consider to
make those suggestions?

- a) The most expensive items available
- b) User demographics and personal information
- c) User behavior and past purchases
- d) Randomly generated selections

c) User behavior and past purchases

E

In deep neural networks, there are layers like input, hidden, and output layers. What's the name for a deep neural network that has more than one hidden layer?

- a) Shallow neural network
- b) Multilayer perceptron
- c) Single-layer network
- d) Linear regression network

b) Multilayer perceptron

In deep learning, there's a neural network inspired by the way our brain works. It's used for things like recognizing images and understanding language. What's the name of this architecture?

- a) Convolutional Neural Network (CNN)
- b) Recurrent Neural Network (RNN)
- c) Decision Tree Network
- d) Random Forest Network

a) Convolutional Neural Network (CNN)

# Intelligence

Why do we use something called a "neural network" in AI?

- a) To build physical robots
- b) To copy how our brains learn
- c) To create cool computer games
- d) To design smartphone apps

b) To copy how our brains learn

#### Artificial Intelligence

What does the word "algorithm" mean in Al?

- a) A kind of robot
- b) A step-by-step way to solve a problem
- c) A fancy computer screen
- d) A computer's parts inside

b) A step-by-step way to solve a problem

# Intelligence

What does "natural language processina" do in Al?

- a) Studies rocks and mountains
- b) Understands and works with human language
- c) Makes cool video game characters
- d) Predicts the weather

b) Understands and works with human language

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In simple terms, what is "machine learning" in AI?

- a) Teaching computers to do things without giving them direct instructions b) Making machines stronger and more
- durable
- c) Building complicated mechanical toys
- d) Creating super-fast computer chips

a) Teaching computers to do things without giving them direct instructions

•

What is the goal of a computer program using "computer vision" in Al?

- a) To help computers see and understand pictures and videos
   b) To play video games on a computer
- c) To design virtual reality worlds
- d) To create colorful graphics for websites

a) To help computers see and understand pictures and videos

What does the term "chatbot" refer to in artificial intelligence?

- a) A talking robot in moviesb) A program that chats or talks with people
- online
- c) A machine for typing on a computer
- d) A device for playing music

b) A program that chats or talks with people online

N

What does it mean when we say a machine can "predict" in Al?

- a) It can tell the future
- data

b) It can make educated guesses based on

- c) It can play sports games
- d) It can change its appearance

b) It can make educated guesses based on data

What is the purpose of using "data training" in machine learning?

- a) Teaching computers to follow a set of rules
- b) Helping machines learn from examples and improve over time
- c) Training humans to use computers
  d) Designing new computer programs
- b) Helping machines learn from examples and improve

- a) The tendency for computers to prefer one kind of music over another
- b) The way computers can be picky about the websites they like
- c) The unfair or incorrect decisions made by a computer program due to biased instructions
- d) The speed at which computers make decisions

c) The unfair or incorrect decisions made by a computer program due to biased instructions

2 N

In simple terms, what is the purpose of "speech recognition" in artificial intelligence?

- a) Creating realistic sound effects for video games
- b) Teaching computers to sing
- c) Improving the volume of computer speakers
- d) Making computers understand and respond to spoken words

d) Making computers understand and respond to spoken words

What is the role of "reinforcement learning" in AI?

- a) Teaching computers to be polite
- b) Designing user-friendly computer interfaces
- c) Helping machines learn from experience and improve their actions
- d) Creating new computer games

c) Helping machines learn from experience and improve their actions

Which of the following statements best describes proprietary algorithms?

- a) Open-source algorithms available for public use.
- b) Algorithms developed by a specific entity and kept confidential. c) Algorithms created through collaborative
- efforts of multiple organizations. d) Algorithms that are regulated by

government authorities.

b) Algorithms developed by a specific entity and kept confidential

Proprietary algorithms refer to algorithms that are owned or developed by a specific individual, company, or organization, and are not publicly disclosed or available for use by others. What is the primary objective of proprietary algorithms for companies?

- a) To encourage open-source collaboration within the industry.
- b) To facilitate government regulation of company operations.
- c) To protect intellectual property and gain a competitive advantage.
- d) To ensure academic institutions have exclusive access to advanced algorithms.
  - c) To protect intellectual property and gain a competitive advantage.

What is Federated Learning?

- a) Centralized machine learning approach
- b) Decentralized machine learning approach
- c) Reinforcement learning technique
- d) Unsupervised learning model

b) Decentralized machine learning approach.

E

Federated learning (also known as collaborative learning) is a machine learning technique that trains an algorithm via multiple independent sessions, each using its own dataset. What are the advantages of Federated Learning?

- a) Centralized data storage.
- b) Improved model performance.
- c) Enhanced data privacy and security.
- d) Reduced computational requirements
  - c) Enhanced data privacy and security.

E

Federated learning (also known as collaborative learning) is a machine learning technique that trains an algorithm via multiple independent sessions, each using its own dataset. Which industries can benefit from Federated Learning applications?

- a) Only healthcare.
- b) Finance and insurance.
- c) Any industry with decentralized data sources.
- d) Entertainment and gaming
- c) Any industry with decentralized data sources.

Federated learning (also known as collaborative learning) is a machine learning technique that trains an algorithm via multiple independent sessions, each using its own dataset What is the difference between Federated Learning and traditional centralized machine learning?

- a) Federated Learning requires a constant internet connection
- b) Traditional machine learning uses distributed data sources
- c) Federated Learning maintains data decentralization for privacy.
- d) Traditional machine learning is faster.
- c) Federated Learning maintains data decentralization for privacy.

### Artificial Intelligence

Federated learning (also known as collaborative learning) is a machine learning technique that trains an algorithm via multiple independent sessions, each using its own dataset. What is the primary motivation behind Federated Learning?

- a) Accelerating model training on a single device.
- b) Enhancing model performance on centralized servers
- c) Preserving user privacy while learning from decentralized data
- d) Reducing the need for distributed computing.
  - c) Preserving user privacy while learning from decentralized data.

#### Artificial Intelligence

Self-preferencing by digital platforms refers to the practice where a platform gives preference to its own products, services, or content over those of third parties. What is the primary concern associated with selfpreferencing by digital platforms?

- a) Enhanced consumer choice and variety
- b) Facilitation of healthy competition
- c) Market distortion and anti-competitive behavior
- d) Increased innovation from third-party developers
- c) Market distortion and anti-competitive behavior.

- a) It encourages self-preferencing for market competition
- b) It allows self-preferencing without any

restrictions

- c) It prohibits self-preferencing and favors competition
- d) It requires platforms to be entirely neutral
- c) It prohibits self-preferencing and favors competition.

data privacy on digital platforms?

- a) It mandates complete data sharing without user consent
- b) It offers no protection for user data privacy
- c) It strengthens data privacy and user consent requirements
- d) It bans user data collection entirely
- c) It strengthens data privacy and user consent requirements.

### Intelligence

How does the Digital Services Act (DSA) address the issue of political advertising on online platforms?

- a) It bans all political advertising
- b) It requires transparency and labeling for political ads
- c) It allows political ads without any restrictions
- d) It imposes higher taxes on political ads

b) It requires transparency and labeling for political ads.

complete random set of content?

- a) True
- b) False

According to a study in 2015, how many 'likes' on Facebook does it take so that the company knows you better than your parents or siblings?

- a) 100
- b) 150
- c) 500d) 750
- u) 700

True or False: Social media services like TikTok, Twitter or Instagram are obliged by law to be designed in a non-addictive way?

- a) True
- b) False

True or False: Political parties use consumer data to target specific audiences on social media?

- a) True
- b) False

Intelligence

Differential privcay is a form of privacy protection technique which allows for companies to preserve the data privacy of individuals while also ensuring that it is unimpeachable from outside attacks. It is one of the most safe privacy protection technologies in use in the modern day. Which of the following companies was the first to use differential privacy in a commercial product?

- a) Google
- b) Apple
- c) Microsoft
- d) Twitter

a) Google.

N

OTT or "over-the-top" refers to technology that delivers streamed content over the internet. Which of the following OTT platform uses differential privacy as a privacy preservation technology?

- a) Amazon Prime
- b) Apple TV
- c) Netflix
- d) Disney +

c) Netflix.

Which audio listening platform uses differential privacy, which is a popular privacy preservation technique, to improve the accuracy of its content recommendation?

- a) Spotify
- b) Apple Music
- c) Amazon Music
- d) Audible

a) Spotify.

governments can take to protect the privacy of their citizens online?

- a) Pass laws that regulate the collection and use of personal data by tech companies
- b) Enforce existing data privacy laws
- c) Educate citizens about their data privacy rights
- d) All of the above

d) All of the above.

On 30 March 2023, the Italian Data Protection Authority (the Garante) issued an interim emergency decision ordering OpenAl LLC (OpenAl) to immediately stop the use of ChatGPT to process the personal data of data subjects located in Italy.

- a) True
- b) False