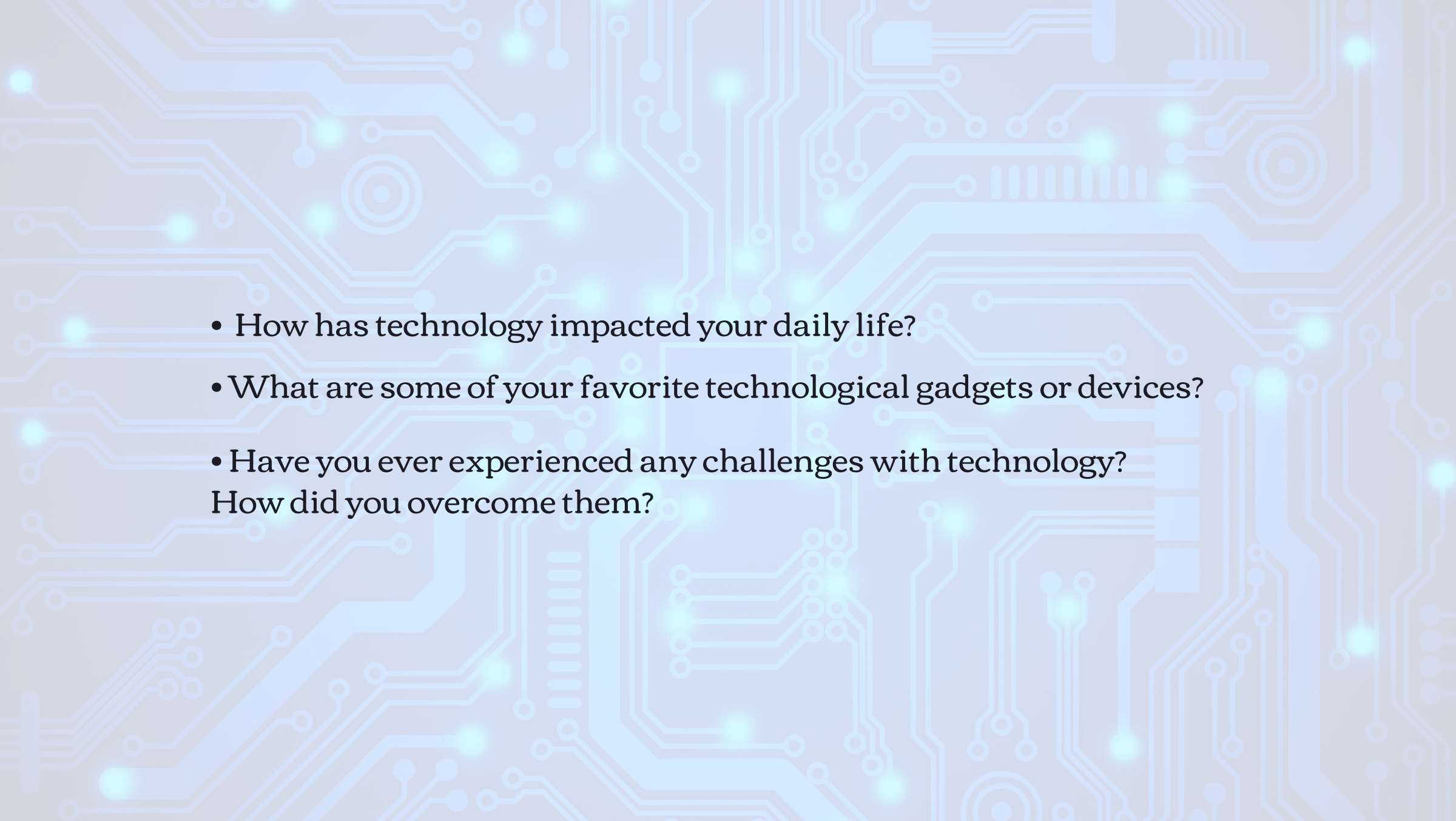# Discussing Technology

- How has technology impacted your daily life?

- What are some of your favorite technological gadgets or devices?

- Have you ever experienced any challenges with technology? How did you overcome them?

Software

Programs and applications used on electronic devices.

1   a. What types of software do you use most frequently?

2   b. Have you ever encountered issues with software compatibility?

3   c. How important is it to keep your software up to date?

Sub vocabulary: operating systems, applications, updates

Hardware

Physical components of electronic devices.

1 Can you name some common hardware components of a computer?

2 Have you ever upgraded hardware components in a device?

3 Why is it important to maintain hardware properly?

Sub vocabulary: motherboard, processor, peripherals

Internet

Global network that connects computers and other devices.

a. How do you typically use the internet in your daily life?

b. What are some advantages and disadvantages of using the internet?

c. Have you ever experienced slow internet speeds? How did you resolve it?

Sub vocabulary: websites, browsing, broadband

Cybersecurity

Measures taken to protect computer systems and data from unauthorized access.

1 Why is cybersecurity important in today's digital age?

2 What steps do you take to ensure your online accounts are secure?

3 Have you ever experienced a cybersecurity breach? How was it handled?

Sub vocabulary: encryption, passwords, firewalls

Cloud Computing

Storing and accessing data and programs over the internet instead of a computer's hard drive.

1 a. How do you use cloud computing in your personal or professional life?

2 b. What are some benefits of using cloud storage?

3 c. Have you ever encountered any challenges with cloud computing?

Sub vocabulary: cloud storage, synchronization, remote access

Artificial Intelligence (AI)

Simulation of human intelligence processes by computer systems.

a. What are some examples of artificial intelligence that you interact with regularly?

b. How do you feel about the increasing use of AI in various industries?

c. What potential benefits and drawbacks do you see in the development of AI?

Sub vocabulary: machine learning, algorithms, automation
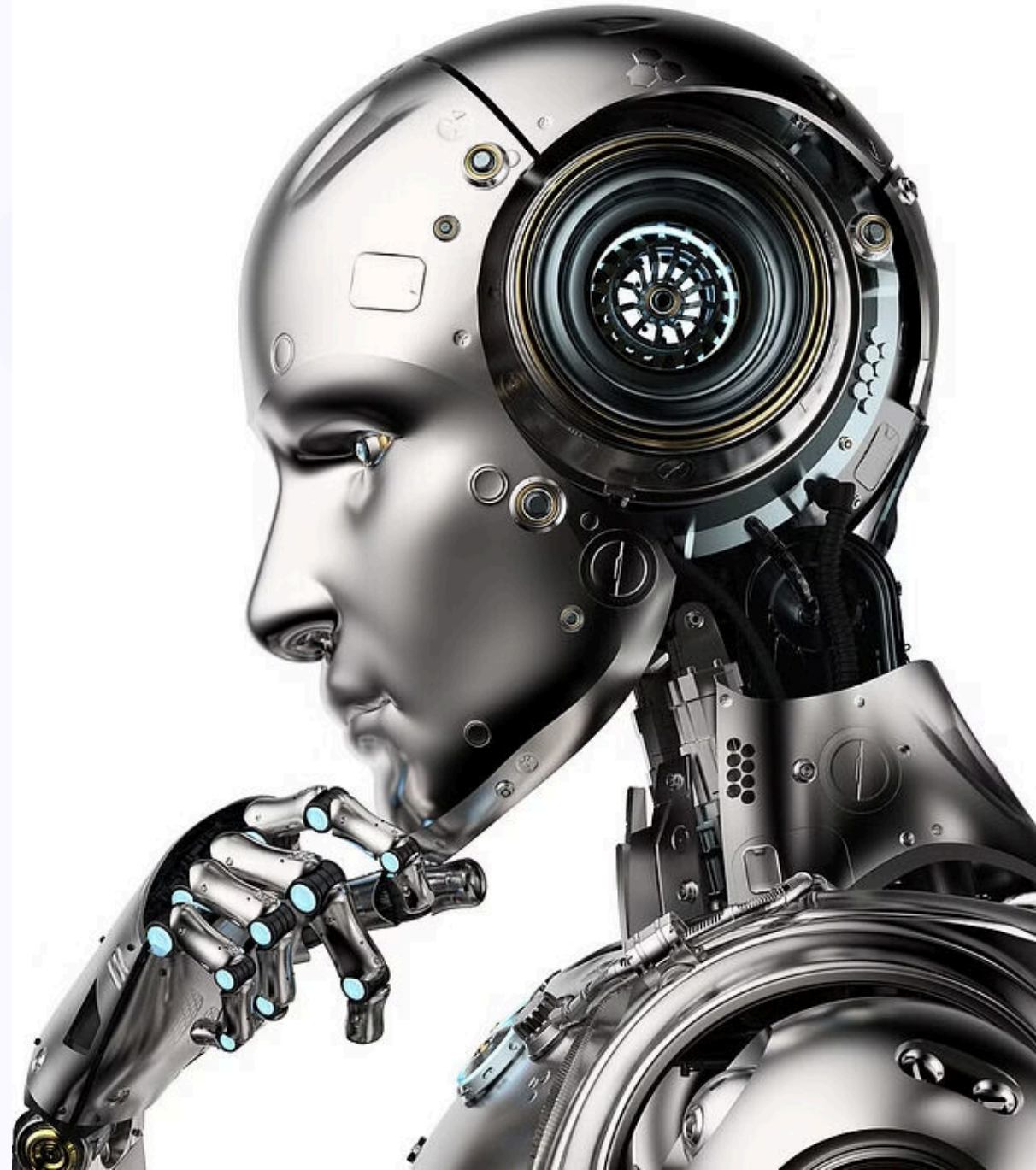
Data Analytics

Process of analyzing, interpreting, and visualizing data to make informed decisions.

1 In what ways can data analytics be useful in business?

2 Have you ever used data analytics tools or software?

3 How do you think data analytics can impact decision-making processes?

Sub vocabulary: data visualization, predictive analytics, insights

E-commerce

Buying and selling goods and services over the internet.

How often do you shop online? What do you typically purchase?

What are the advantages and disadvantages of e-commerce?

Have you ever encountered any issues with online transactions?

Sub vocabulary: online shopping, digital payments, delivery
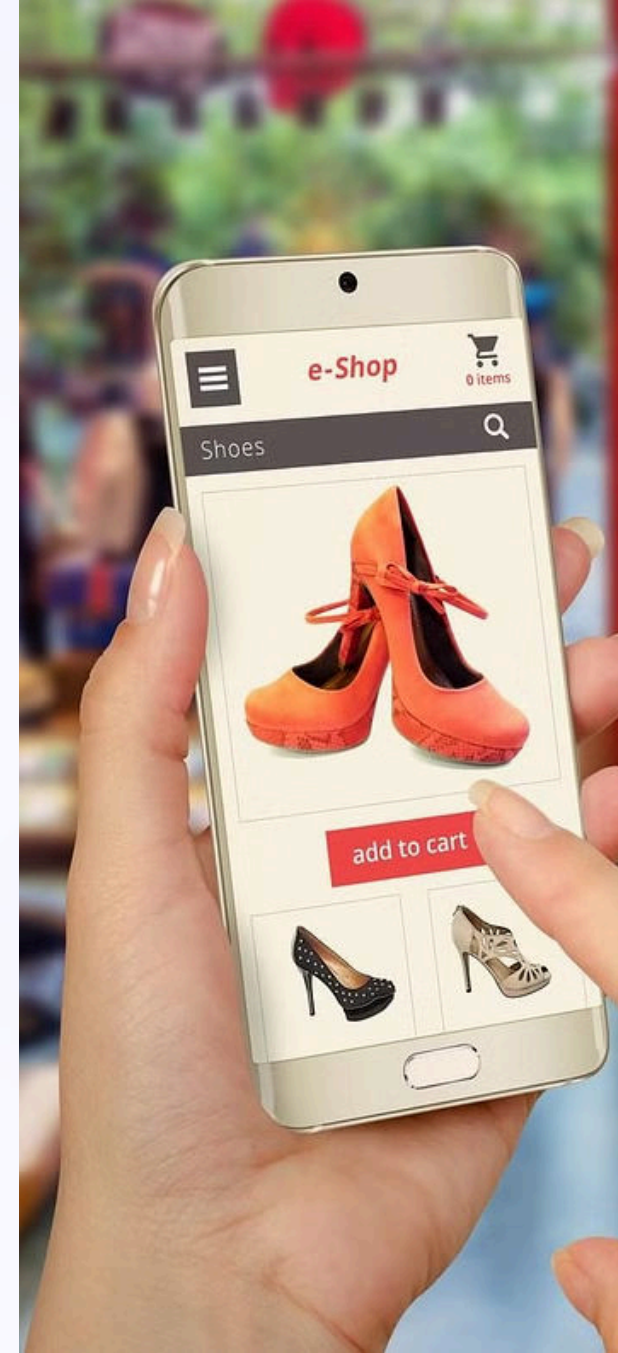
Social Media

Online platforms and websites that enable users to create and share content.

1 — Which social media platforms do you use regularly?

2 — How do you use social media for personal or professional purposes?

3 — What are some benefits and risks associated with social media use?

Sub vocabulary: networking, influencers, engagement

Virtual Reality (VR)

Virtual Reality (VR): Immersive multimedia experience that simulates reality.

1 Have you ever tried virtual reality technology? What was your experience like?

2 In what industries do you see potential applications for virtual reality?

3 How do you think virtual reality could change entertainment and education?

Sub vocabulary: headsets, simulations, gaming

Big Data

Large volumes of data that cannot be processed using traditional methods.

1 What types of organizations benefit from analyzing big data?

2 How is big data used to improve decision-making processes?

3 What challenges may arise when dealing with big data?

Sub vocabulary: data mining, analytics, insights

Internet of Things (IoT)

Network of interconnected devices that communicate and share data.

Can you name some examples of IoT devices in your home or workplace?

How does IoT technology improve efficiency and convenience?

What are some potential privacy and security concerns associated with IoT?

Sub vocabulary: sensors, connectivity, automation

Blockchain

Distributed ledger technology used to record transactions securely and transparently.

1 How does blockchain technology work?

2 What are some industries that could benefit from adopting blockchain?

3 What are the advantages of using blockchain for transactions?

Sub vocabulary: cryptocurrency, smart contracts, decentralization
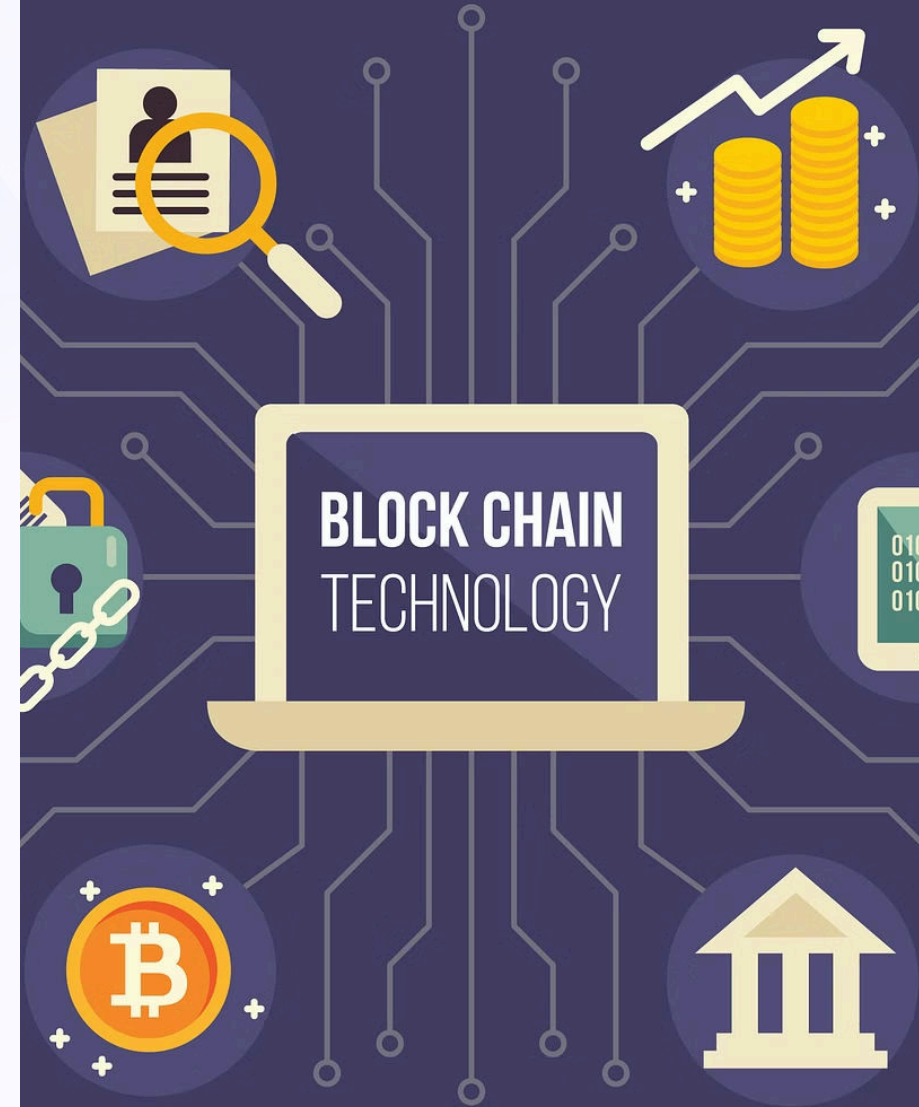
# Augmented Reality (AR)

Technology that overlays digital information onto the real world.

1
a. Have you ever experienced augmented reality applications? Describe your experience.

2
b. In what ways can augmented reality enhance user experiences?

3
c. What are some potential challenges in implementing augmented reality technology?

Sub vocabulary: mobile apps, visualization, gaming
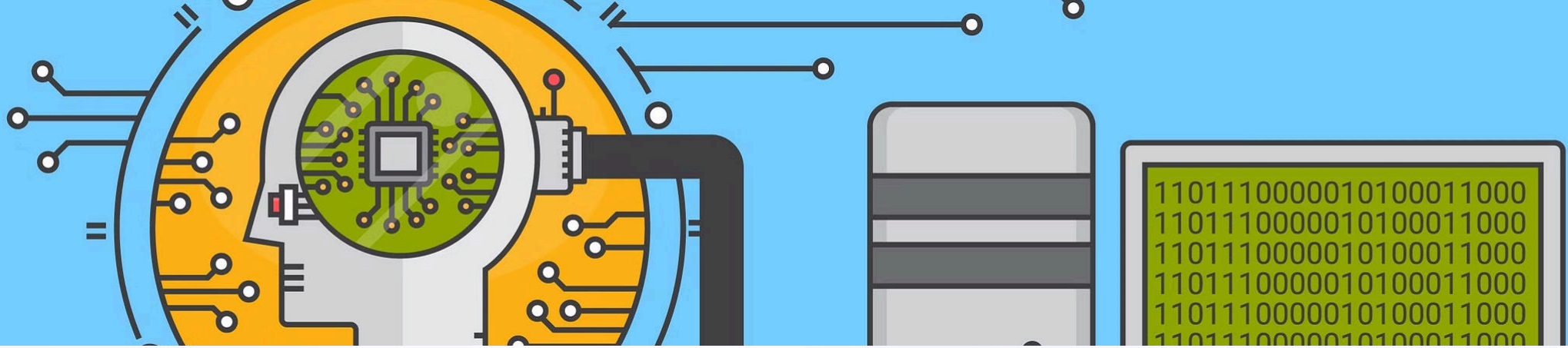
Machine Learning

Subset of artificial intelligence that enables systems to learn and improve from experience.

1 How is machine learning used in everyday applications?

2 What are some benefits of using machine learning in business?

3 What ethical considerations should be taken into account when developing machine learning algorithms?

Sub vocabulary: algorithms, training data, automation

Core Vocabulary

1. **Software:** Programs and applications used on electronic devices.

2. **Hardware:** Physical components of electronic devices.

3. **Internet:** Global network that connects computers and other devices.

4. **Cybersecurity:** Measures taken to protect computer systems and data from unauthorized access.

5. **Cloud Computing:** Storing and accessing data and programs over the internet instead of a computer's hard drive.

6. **Artificial Intelligence (AI):** Simulation of human intelligence processes by computer systems.

7. **Data Analytics:** Process of analyzing, interpreting, and visualizing data to make informed decisions.

8. **E-commerce:** Buying and selling goods and services over the internet.

9. **Social Media:** Online platforms and websites that enable users to create and share content.

10. **Virtual Reality (VR):** Immersive multimedia experience that simulates reality.

11. **Big Data:** Large volumes of data that cannot be processed using traditional methods.

12. **Internet of Things (IoT):** Network of interconnected devices that communicate and share data.

13. **Blockchain:** Distributed ledger technology used to record transactions securely and transparently.

14. **Augmented Reality (AR):** Technology that overlays digital information onto the real world.

15. **Machine Learning:** Subset of artificial intelligence that enables systems to learn and improve from experience.

Question Preview

1. Software:
   a. What types of software do you use most frequently?
   b. Have you ever encountered issues with software compatibility?
   c. How important is it to keep your software up to date?

2. Hardware:
   a. Can you name some common hardware components of a computer?
   b. Have you ever upgraded hardware components in a device?
   c. Why is it important to maintain hardware properly?

3. Internet:
   a. How do you typically use the internet in your daily life?
   b. What are some advantages and disadvantages of using the internet?
   c. Have you ever experienced slow internet speeds? How did you resolve it?

4. Cybersecurity:
   a. Why is cybersecurity important in today's digital age?
   b. What steps do you take to ensure your online accounts are secure?
   c. Have you ever experienced a cybersecurity breach? How was it handled?

5. Cloud Computing:
   a. How do you use cloud computing in your personal or professional life?
   b. What are some benefits of using cloud storage?
   c. Have you ever encountered any challenges with cloud computing?

6. Artificial Intelligence (AI):
   a. What are some examples of artificial intelligence that you interact with regularly?
   b. How do you feel about the increasing use of AI in various industries?
   c. What potential benefits and drawbacks do you see in the development of AI?

7. Data Analytics:
   a. In what ways can data analytics be useful in business?
   b. Have you ever used data analytics tools or software?
   c. How do you think data analytics can impact decision-making processes?

8. E-commerce:
   a. How often do you shop online? What do you typically purchase?
   b. What are the advantages and disadvantages of e-commerce?
   c. Have you ever encountered any issues with online transactions?

9. Social Media:
   a. Which social media platforms do you use regularly?
   b. How do you use social media for personal or professional purposes?
   c. What are some benefits and risks associated with social media use?

10. Virtual Reality (VR):
    a. Have you ever tried virtual reality technology? What was your experience like?
    b. In what industries do you see potential applications for virtual reality?
    c. How do you think virtual reality could change entertainment and education?

11. Big Data:
    a. What types of organizations benefit from analyzing big data?
    b. How is big data used to improve decision-making processes?
    c. What challenges may arise when dealing with big data?

12. Internet of Things (IoT):
    a. Can you name some examples of IoT devices in your home or workplace?
    b. How does IoT technology improve efficiency and convenience?
    c. What are some potential privacy and security concerns associated with IoT?

13. Blockchain:
    a. How does blockchain technology work?
    b. What are some industries that could benefit from adopting blockchain?
    c. What are the advantages of using blockchain for transactions?

14. Augmented Reality (AR):
    a. Have you ever experienced augmented reality applications? Describe your experience.
    b. In what ways can augmented reality enhance user experiences?
    c. What are some potential challenges in implementing augmented reality technology?

15. Machine Learning:
    a. How is machine learning used in everyday applications?
    b. What are some benefits of using machine learning in business?
    c. What ethical considerations should be taken into account when developing machine learning algorithms?

Sub Vocabulary Preview

1. Software:
   - Operating Systems: Software that manages computer hardware and software resources.
   - Applications: Specific software programs designed to perform tasks for users.
   - Updates: Software modifications or improvements released by developers to enhance performance or fix issues.

2. Hardware:
   - Motherboard: Main circuit board containing the central processing unit (CPU) and other components.
   - Processor: Central processing unit responsible for executing instructions and performing calculations.
   - Peripherals: External devices connected to a computer, such as keyboards, mice, and printers.

3. Internet:
   - Websites: Online locations containing web pages and multimedia content accessible via the internet.
   - Browsing: Navigating and exploring web pages and content on the internet.
   - Broadband: High-speed internet connection capable of transmitting large amounts of data.

4. Cybersecurity:
   - Encryption: Process of encoding data to prevent unauthorized access.
   - Passwords: Secret codes used to authenticate users and grant access to protected resources.
   - Firewalls: Security barriers that monitor and control incoming and outgoing network traffic.

5. Cloud Computing:
   - Cloud Storage: Online data storage service where digital data is stored and accessed remotely.
   - Synchronization: Process of ensuring data consistency across multiple devices or platforms.
   - Remote Access: Ability to access and control computer systems or data from a remote location.

6. Artificial Intelligence (AI):
   - Machine Learning: Subset of AI that enables systems to learn from data and improve over time without explicit programming.
   - Algorithms: Step-by-step procedures or formulas used to solve problems or perform calculations.
   - Automation: Process of performing tasks or processes with minimal human intervention using AI and robotics.

7. Data Analytics:
   - Data Visualization: Representation of data in visual formats such as charts, graphs, and maps for easier understanding and analysis.
   - Predictive Analytics: Analytical technique used to predict future outcomes based on historical data and statistical algorithms.
   - Insights: Valuable information or knowledge gained from analyzing data to inform decision-making.

8. E-commerce:
   - Online Shopping: Purchasing goods or services over the internet from virtual stores or online marketplaces.
   - Digital Payments: Electronic transactions conducted over the internet using digital currencies or payment systems.
   - Delivery: Process of transporting goods from sellers to buyers, often facilitated by shipping or courier services.

9. Social Media:
   - Networking: Act of connecting and interacting with others online for personal or professional purposes.
   - Influencers: Individuals or entities with significant social media presence and the ability to influence the opinions and behaviors of others.
   - Engagement: Interaction and participation with social media content through likes, comments, shares, and other actions.

10. Virtual Reality (VR):
    - Headsets: Devices worn over the eyes to experience virtual reality by immersing users in digital environments.
    - Simulations: Computer-generated replicas of real-world scenarios or environments used for training, education, or entertainment purposes.
    - Gaming: Playing video games or interactive experiences in virtual reality environments.

11. Big Data:
    - Data Mining: Process of extracting valuable insights or patterns from large volumes of data using statistical analysis and machine learning algorithms.
    - Analytics: Examination and interpretation of data to uncover meaningful patterns, trends, and correlations.
    - Insights: Valuable information or knowledge gained from analyzing data to inform decision-making.

12. Internet of Things (IoT):
    - Sensors: Devices that detect and collect data from the physical environment and transmit it over the internet.
    - Connectivity: Ability of IoT devices to communicate and share data with each other and other systems via the internet.
    - Automation: Process of automating tasks or processes using IoT devices and sensors to improve efficiency and convenience.

13. Blockchain:
    - Cryptocurrency: Digital or virtual currencies secured by cryptography and decentralized ledger technology, such as Bitcoin and Ethereum.
    - Smart Contracts: Self-executing contracts with the terms of the agreement directly written into code, automatically enforced by the blockchain.
    - Decentralization: Distribution of control and authority across a network of computers or nodes, reducing the risk of a single point of failure or manipulation.

14. Augmented Reality (AR):
    - Mobile Apps: Applications designed to run on mobile devices such as smartphones and tablets, often used to deliver augmented reality experiences.
    - Visualization: Process of creating visual representations of data, concepts, or ideas to aid understanding or communication.
    - Gaming: Playing video games or interactive experiences in augmented reality environments.

15. Machine Learning:
    - Algorithms: Step-by-step procedures or formulas used to solve problems or perform calculations in machine learning models.
    - Training Data: Sets of labeled data used to train machine learning algorithms and models to make predictions or decisions.
    - Automation: Process of performing tasks or processes with minimal human intervention using AI and machine learning algorithms.