# UNIT 5
# IMMERSIVE REALITIES

**Connect to the topic**

1. Look at the photo. What is the boy doing?
2. What elements in the photo show that this is a virtual reality setting?
3. What do you think he might be experiencing?
4. Have you ever used virtual reality? If yes, what did you do with it?

## WARM-UP VIDEO

**WATCH AND SPECULATE.** Watch the video about the differences between VR, AR and MR and discuss the questions below.

1. What is the difference between VR, AR, and MR? Can you give an example of each?
2. What jobs or industries do you think will change the most because of VR, AR, and MR? Why?
3. How do you think VR, AR, and MR can help with learning in school?
4. Can you think of any subjects that would be more fun or easier with these technologies?

## UNIT 5.1 Virtual Reality

### LISTENING

**Task 1. COLLABORATE.** Work in small groups. Have a quick poll to find out how you feel about virtual reality. Discuss the results in a group.

### Virtual Reality Experiences

1. Have you ever used virtual reality?
   A. Yes, I use it often.
   B. Yes, I've tried it a few times.
   C. No, but I'm interested in trying.
   D. No, and I'm not really interested.
2. What do you primarily use virtual reality for?
   A. Gaming and entertainment.
   B. Virtual travel or exploration.
   C. Educational purposes.
   D. Meditation.
3. How do you feel about VR's impact on your sense of reality?
   A. It's immersive, but I can separate it from real life.
   B. It can be disorienting.
   C. I'm concerned about its impact on social interactions.
   D. I think VR offers unique experiences that improve reality.
4. What do you think is the biggest problem with virtual reality?
   A. The cost of equipment.
   B. The need for advanced hardware.
   C. Safety and space requirements.
   D. Motion sickness or disorientation.
5. Do you think virtual reality has a bright future?
   A. Yes, it will become more common and accessible.
   B. Yes, but it might take time to become mainstream.
   C. No, it’s just a trend that will fade.
   D. I'm not sure; it's hard to predict.
6. Would you recommend virtual reality to others?
   A. Yes, I think everyone should try it.
   B. Maybe, depending on their interests.
   C. No, I don't think it's for everyone.

**Task 2. LISTEN FOR DETAILS.** Scan the QR code and listen to four people talking about their VR experiences. For questions 1-4, choose from the list (A-H) the key point that best summarizes each speaker's experience with recommendation algorithms. Use each letter only once; there are four extra letters you do not need to use.

Virtual reality can...

a) offer immersive gaming experiences.
b) be used for space travel and exploration.
c) cause motion sickness or dizziness.
d) have educational applications.
e) be cheap to set up and maintain.
f) enhance social experiences and virtual events.
g) require significant software resources.

1. Greg
2. Maya
3. Raj
4. Chloe

h) be useful for therapy and rehabilitation.

## READING AND VOCABULARY

**Task 3. READ FOR MAIN IDEA.** You're going to read an article about virtual reality. First skim-read it quickly to get a general idea of the content and the organization. Which of these topics is not mentioned in the article?

A. The process of rendering in virtual reality.
B. The technological components of virtual reality glasses.
C. The impact of virtual reality on social interactions.
D. The history of virtual reality.
E. The role of video game engines in virtual reality experiences.

**Task 4. READ FOR DETAILS.** These sentences have been removed from the article. Read the article again and match each sentence with a numbered gap.

A. It must be able to render hyper-realistic, high-resolution images.
B. The author of them was the science fiction writer Stanley G. Weinbaum in his book "The Pygmalion Glasses".
C. The most powerful glasses to enjoy virtual reality experiences are those connected to a high-performance computer.
D. In this way they offer a fully interactive experience.
E. It was called a stereoscopic television set for individual use.

### History and Mechanics of Virtual Reality

Virtual reality technology consists of immersing the user in a completely synthetic computer-generated world, in which his or her senses no longer perceive the real world, transporting the user to an alternative environment.

To enjoy a virtual reality experience, special glasses are needed. These glasses can be connected to a computer, be fully portable or require a mobile phone to be inserted into the glasses. 1) _____. That is because they allow much more realism and graphic quality in the virtual environments proposed to the user.

The history of virtual reality began at the beginning of the 20th century, back in 1935. In that year, we find the first specific reference to virtual reality glasses. 2) _____. The story revolves around a teacher's invention, which allows the user to transport himself to other worlds and places through glasses.

The first virtual reality glasses were created in 1960 by Morton Heiling, and he is therefore known as the father of virtual reality. This cinematographer and inventor, had developed the Sensorama in 1957, a rather bulky machine that allowed the user to enjoy multisensory experiences. His new invention, designed to be used as a portable device in the user's head. 3) _____. This was the beginning of the history of virtual reality. Although that virtual reality helmet may seem very rudimentary today, the concept was already very similar to today's equipment, and so it is considered to be the first virtual reality glasses in history.

It is interesting to understand how the virtual reality glasses work, as there are several technologies that are integrated into one of these devices. The viewing system consists of two screens on which the user can see a different video sequence in each eye. When content adapted to the glasses is shown, and by means of stereoscopic vision, the user perceives it as a three-dimensional, dynamic and interactive space. In addition, the glasses include inertial and positioning sensors to be able to react to the movements made by the user. 4) _____. So, when we walk, move our head or hands in the real world, we also move in the virtual world.

The software used in virtual reality experiences is basically a video game engine. 5) _____. Rendering is the process that transforms the information of a three-dimensional scene, geometry, textures and lighting, into 2D frames. In the case of virtual reality, two frames must be calculated at a time, one for each eye, and they must have a minimum resolution of 4K for each eye when using the most advanced equipment. This is why high-performance graphics cards

are required in virtual reality applications, since a user-friendly experience must run at least 90 frames per second.

(adapted from https://www.innovae.com/en/the-virtual-reality-technology/)

**Task 5. WORK WITH WORDS.** Match each highlighted word from the article with its meaning.

| | |
|---|---|
| 1. **perceive** | a) to move in a circular path around something |
| 2. **portable** | b) to put something into something else |
| 3. **insert** | c) to recognize through the senses |
| 4. **revolve** | d) not advanced or fully developed |
| 5. **bulky** | e) having length, breadth, and depth |
| 6. **rudimentary** | f) large and difficult to carry because of size or weight |
| 7. **sequence** | g) the number of pixels in each dimension |
| 8. **three-dimensional** | h) a particular order in which things follow each other |
| 9. **inertial** | i) easily carried or moved |
| 10. **resolution** | j) related to lack of movement |

**Task 6. WORK WITH WORDS.** Use your ideas or ideas from the text to continue the sentences below.

1. When you wear virtual reality glasses, you can perceive...
2. These virtual reality glasses are portable, meaning they can be...
3. To use the VR headset, you need to insert...
4. The story in "The Pygmalion Glasses" revolves around...
5. The first virtual reality machine was very bulky, making it difficult to...
6. The early VR technology was rudimentary, but it still allowed users to...
7. In VR, each eye sees a different video sequence, which helps to create...
8. Virtual reality provides a three-dimensional experience, making the environment feel...
9. The VR glasses include inertial sensors to detect...
10. High resolution is important in VR because it ensures that the images ...

**Task 7. EXPLORE THE WORDS.** Study the sentences below and match the words in bold to their definitions.

1. The Oculus Quest 2 offers a **field of view** of 90 degrees, making the virtual environment feel bigger and more realistic.
2. When John uses the new VR gloves, he experiences **haptic** feedback that makes virtual objects feel real when he touches them.
3. The VR system provides six **degrees of freedom**, which lets players walk freely in all directions to explore virtual worlds.
4. Emma used **controllers** which tracked her movements to interact with virtual objects like they were her own hands.
5. The **spatial** audio system in the VR game creates a 360-degree sound environment, where Alex hears sounds coming from different directions.
6. The advanced graphics and interactive environment of the VR system created a strong sense of **virtual presence**, making the players feel like they were really in the game.
7. The **accelerometer** in the VR platform tracked Emily's fast movements to keep the virtual viewpoint steady as she turned her head.
8. The **gyroscope** in the Samsung Gear VR maintains the correct orientation when users move their heads to look around.
9. The Microsoft HoloLens uses spatial **mapping** to turn real environments into virtual ones.
10. The **eye tracking** feature in the VR headset detects where a person is looking and adjusts the focus to make the virtual experience more real..

_____ a. devices you hold and use to track movements and interact with virtual world

_____ b. monitoring where a user is looking to enhance how things appear on the screen
_____ c. related to the sense of touch
_____ d. a device that measures changes in speed and direction
_____ e. related to space and the arrangement of objects in it
_____ f. the process of creating a digital representation of a physical environment
_____ g. the feeling of being physically present in a non-physical world
_____ h. the extent of what you can see at once
_____ i. a device that measures orientation and positioning
_____ j. the number of ways an object can move in 3D space

**Task 8. WORK WITH WORDS.** Read the advert for a VR game and fill the missing words.

**Half-Life: Alyx**

| accelerometer ● eye tracking ● virtual presence ● spatial ● field of view ● mapping ● degrees of freedom ● gyroscope ● haptic ● controllers |
|---|

Step into the world of "Half-Life: Alyx" with the Oculus Quest 2. This game uses cutting-edge technology to deliver a unique VR experience. The wide 1) _____immerses you in the vast and detailed environment of City 17, enhanced by high-quality graphics and audio. You will feel completely surrounded with a new world as it creates a powerful sense of 2) _____.

Navigate through the game world effortlessly using the intuitive motion 3) _____. Feel the realism through 4) _____ feedback, which lets you feel every texture and interaction with virtual objects. Enjoy complete freedom of movement with six 5) _____, with which you can move around and explore every corner of the game.

The headset's advanced 6) _____ ensures smooth tracking of your movements. Meanwhile, the 7) _____ provides accurate orientation, making the virtual world respond to your actions accurately. 8) _____ technology adjusts the focus based on where you're looking and this makes your interactions even more natural.

Safety and immersion are enhanced by 9) _____ technology that scans your physical space to keep you safe from bumping into real-world objects. The 10) _____ audio provides a 360-degree soundscape and makes you feel like you're right in the middle of the action. It alerts you to enemies and enhances the realism of every moment.

All these technologies come together in "Half-Life: Alyx" to create a lifelike and engaging adventure. Experience accurate motion tracking, realistic feedback, dynamic sound, and stunning graphics. This game is more than just something you play, it's a journey into a new reality.

## WATCHING

**Task 9. COMMUNICATE.** Work in pairs. Discuss the questions below.

1. How do you think technology has changed the way we study and understand ancient civilizations?
2. How do you think virtual reality could be used in the field of archaeology?
3. Do you think virtual experiences can fully replace real-world experiences? Why or why not?

**Task 10. WATCH FOR DETAILS.** Scan the QR code and watch the video "Archeology using VR". Choose the correct answers to the questions.

1. Who funded the virtual archaeological field school project at the University of Illinois?
   A. Google
   B. National Science Foundation
   C. NASA
   D. The University of Illinois

2. What inspired the design of the virtual cave by the researchers?
   A. A real cave excavated in the 1930s
   B. A fictional cave from 1930s
   C. A modern laboratory
   D. A computer simulation from the 1990s
3. How many virtual artifacts can students find in the virtual cave?
   A. 50
   B. 75
   C. 110
   D. 200
4. What kind of artifacts does the virtual cave contain?
   A. Only ancient artifacts
   B. Only modern artifacts
   C. Both ancient and more recent human artifacts
   D. Only digital artifacts
5. How do students work in the virtual cave?
   A. Individually
   B. In teams of two
   C. In groups of four
   D. As a whole class
6. Which of the following is NOT a skill mentioned by Laura Shackelford?
   A. Excavating a site
   B. Mapping and planning for an excavation
   C. Cataloging and documenting artifacts
   D. Examining bones
7. What is one of the main advantages of the virtual field school experience mentioned by Cameron Merrill?
   A. It allows students to earn money
   B. It gives access to places that are inaccessible or too costly
   C. It improves archeological skills
   D. It provides a social media platform for students

**Task 11. COMMUNICATE.** Work in pairs. Role play a situation below.
**Student A:** You are a student from a virtual field school. You've used VR technology for learning. Describe your experiences, insights, and opinions regarding about how well it worked.
**Student B:** You are a journalist. Interview a student who has used VR for studying at university. Ask questions to understand how to use VR for educational purposes.

## SPEAKING

**Task 12. COLLABORATE.** Work in small groups. Consider the following activities in terms of their impact on health and mark them as either positive or negative.

- Playing VR games for long periods
- Taking regular breaks while gaming
- Playing video games with violent content
- Using VR fitness apps
- Drinking energy drinks while gaming
- Joining social VR activities
- Sleeping less because of late-night gaming
- Playing educational VR games
- Gaming in bright and ventilated rooms
- Using VR while exercising

**Task 13. COLLABORATE.** Work in pairs. Read the following two opinions about VR gaming and health. Answer the questions below.

**Letter from a Parent**

I'm worried about my son's VR gaming. He spends hours every day with his headset. I feel it's affecting his health. You see, he's more withdrawn, not exercising, and often has headaches and eye strain. VR can be fun, but there should be limits. We need better parental controls to manage screen time.

**Letter from a Gamer**

I've been playing VR games for years, and I love it! It's a great way to explore, meet people, and stay active. I use fitness apps that make exercise fun, and I've made friends from around the world. Sure, there are risks if you overdo it, but that's true for anything. We just need to be responsible and take breaks. VR has really improved my social life, and I feel happier because of it.

1. Who believes that VR gaming can be harmful to health, and why?
2. Who supports VR gaming, and what good things they mention?
3. What do both people say is important when using VR?

**Task 14. COLLABORATE.** Work in pairs. Decide if the following statements are True or False:

1. The parent believes that VR gaming is harmful if used too much.
2. The gamer thinks VR has made him healthier.
3. The parent wants more controls to limit VR gaming time.
4. The gamer mentions that VR has helped him meet new people.
5. Both the parent and the gamer think VR is good if used carefully.

**Task 15. COMMUNICATE.** Discuss these situations in pairs.

1. Do you agree with the parent or the gamer? Or both? Why?
2. How can we limit VR gaming time to avoid health problems?
3. Have you or someone you know had any health problems from VR gaming?
4. How do you stay healthy while gaming?
5. What tips would you give for using VR in a safe and healthy way?

**Task 16. COLLABORATE.** Work in pairs. Develop a questionnaire to evaluate someone's gaming habits and their impact on health. Consider these areas:

- Hours spent gaming per day
- Frequency of breaks
- Types of games played (violent, educational, fitness, etc.)
- Use of VR in well-lit areas
- Physical symptoms (eye strain, headaches, dizziness, etc.)
- Social impact (withdrawal or meeting new people)

Follow these instructions:

1. Make six questions about VR gaming and health.
2. Give three answer choices for each question.
3. Assign a score to each answer (e.g., 0 for unhealthy, 2 for okay, 3 for healthy).
4. Decide what score means healthy or unhealthy habits.
5. Give feedback based on the score, offer praise or advice.
6. Interview one or two people for their responses.
7. Share your results and suggest ways to stay healthy while gaming.

**Task 17. COMMUNICATE.** Work in pairs. Role play a situation where you plan to attend the VR Escape Room Challenge together. Use the event details provided below to guide your discussion. Practice discussing plans, asking questions, and making decisions.

**Student A:** You are excited about the VR Escape Room Challenge and want to organize a group to attend the event.

**Student B:** You are interested in the event but have questions and want to discuss the plans before agreeing.

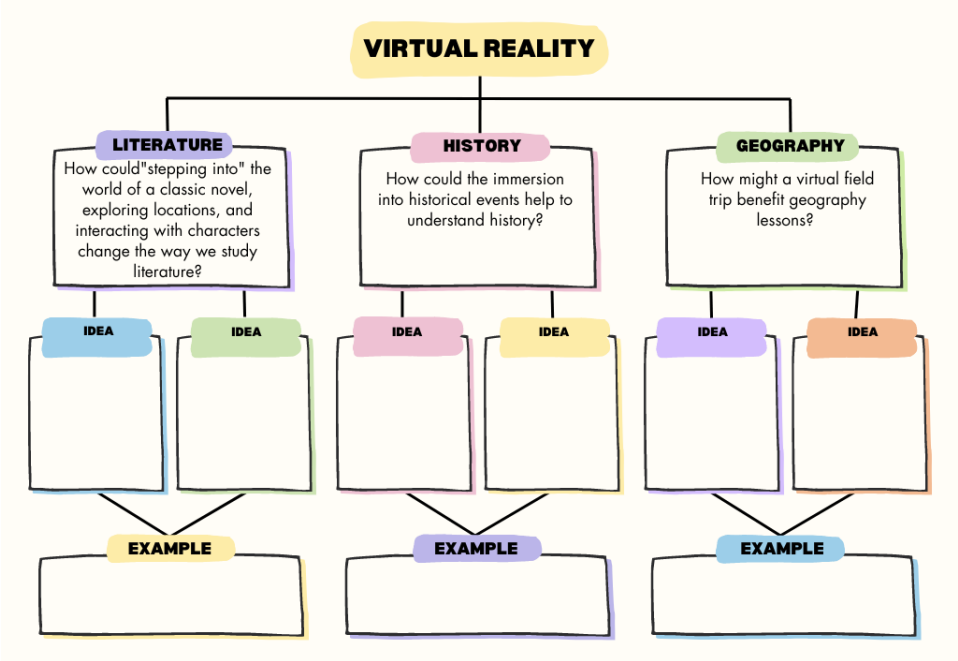

**Task 18. COLLABORATE.** Four students get cards with manifestos. They should win as many people as possible over to their cause. They move around the class explaining the policy of their party and trying to get other students to join the party. In the end 1) everyone should join the party 2) no one can join more than one party 3) as soon as the student has joined the party he should canvass for the party, trying to get more members. At the end of the game the largest party wins.

## Canvassing

| |
|---|
| **The techno-anarchy party**<br>Your slogan is: FREE THE DIGITAL WORLD.<br>Your policies are:<br>Get rid of rules that control digital stuff.<br>Use AI-driven virtual politicians to replace human leaders.<br>Use smart computers to make fair choices.<br>Create digital personas that can represent individuals in virtual environments.<br>Explore of alternate realities through parallel universes.<br>Legalize hacking as a form of digital civil disobedience. |
| **The technological advance party**<br>Your slogan is: A ROBOT IN EVERY HOME BY THE YEAR 2030.<br>You think that the way forward is through technological progress.<br>Your policies are:<br>More money to be spent on space exploration.<br>More money for scientific and medical research.<br>Teaching to be done by computer.<br>Automate everything.<br>Faster transport, development of supersonic cars.<br>Domestic robots to every home. |

| |
|---|
| More sophisticated leisure facilities.<br>Foundation of colonies in space. |
| **The virtual reality utopia party**<br>Your slogan is: ESCAPE REALITY, EMBRACE VIRTUALITY.<br>Your policies are:<br>VR simulations instead of traditional education.<br>Compulsory use of VR for all social interactions and communication.<br>Develop AI-driven virtual companions for emotional support.<br>Go to other planets and space in VR worlds.<br>Create VR ecosystems where people can live as digital avatars.<br>Create virtual reality theme parks with unlimited rides and attractions.<br>Trade feelings, experiences, and dreams as currency.<br>Merge consciousness into a collective digital hive mind. |
| **The smart body party**<br>Your slogan is: MERGE WITH MACHINES, UPGRADE YOURSELF.<br>Your policies are:<br>Get cool cyber stuff inside your body to be stronger.<br>Compulsory brain-to-brain communication for instant knowledge transfer.<br>Use nanotechnology for self-repair and regeneration.<br>Recognize robots as beings with feelings and the right to make their own choices.<br>Upload people's consciousness into robotic bodies.<br>Create cyborg animal companions.<br>Transform people into shape-shifting beings with superhuman abilities. |

**Task 19. COLLABORATE.** Divide into 3 teams. Brainstorm ways virtual reality can be used to create engaging educational experiences in subjects like literature, history, or geography. Think about how VR could transform a traditional lesson into an immersive and interactive experience. After brainstorming, share your ideas with the class and discuss the educational benefits of VR.




## WRITING

**Task 20. ANALYZE.** Read the letter of announcement and answer the questions below.

Dear Mr Tamplton,

I am delighted to announce that VR Dynamics will be implementing virtual reality technology across various departments starting from July 1, 2025. This initiative aims to enhance our operational efficiency, improve customer experiences, and foster innovation within our organization.

In the first phase of implementation, VR headsets will be deployed in our Marketing and Sales departments to facilitate immersive training sessions and virtual meetings. Employees will have access to specialized VR applications designed to simulate real-world scenarios and enhance learning outcomes.

We are confident that VR technology will improve how we conduct business operations and engage with our stakeholders. We look forward to exploring new possibilities and achieving greater efficiencies through this innovative solution.

Thank you for your continued support as we embrace this exciting advancement in technology.

Warm regards,
Larry Harrison
Project Manager

1. Who is going to read this letter?
2. Is it formal or informal?
3. What is the topic of each paragraph?
4. What are the opening and closing remarks? Can you replace them with other appropriate expressions?

**Task 21. ANALYZE.** Match the beginnings with the endings, then identify the style and type of letters they belong to (announcement, request, complaint, apology).

| Beginnings | Endings |
|---|---|
| 1. I am writing to report a cybersecurity breach detected in our network last night. | a) We look forward to your continued support as we enhance our IT capabilities. |
| 2. Could you please provide me with detailed specifications for the new server installation? | b) Your participation in planning the revised delivery schedule is requested. |
| 3. We regret to inform you that the IT training workshop scheduled for next week has been postponed. | c) Please provide guidance on resolving this issue promptly. |
| 4. Dear IT Support Team, I would like to bring to your attention a recurring issue with our email server. | d) Your prompt investigation into this matter is appreciated. |
| 5. We are pleased to announce the launch of our new IT helpdesk support system. | e) Your participation in the rescheduled workshop would be appreciated. |
| 6. Please accept our apologies for the service disruption experienced last weekend. | f) We apologize for any inconvenience caused and appreciate your prompt attention to this matter. |
| 7. Could you please send me the installation guide for the latest database management software? | g) Kindly expedite the order processing to minimize project delays. |
| 8. We regret to inform you that there will be a delay in delivering the IT equipment due to supply chain disruptions. | h) Your feedback on the new helpdesk system would be valuable. |

**Task 22. WRITE.** Write an announcement letter based on the situation below.

You are a real estate agent. Write a letter to potential clients announcing the launch of Virtual Reality tours for property viewings. Explain how VR tours will provide a realistic experience for remote buyers and encourage them to schedule virtual tours.

**Useful phrases:**
We are pleased to announce that...
We are excited to inform you that...
It is with great pleasure that we announce...
We are writing to let you know that...
We would like to announce the launch of...
We are happy to notify you that...
We are announcing a new initiative to...
We would like to provide you with details regarding...
Here are the details regarding...
We appreciate your attention to this matter.
Should you have any questions, please do not hesitate to contact us.
Thank you for your continued support.
We look forward to (implementing/launching/introducing)...
We are excited about this (new initiative/development/launch).
We are confident that this (change/update/launch) will (benefit/improve/enhance)...

## LANGUAGE FOCUS

**Task 23. STUDY AND ANALYZE.** Look at the rule about Future Continuous, study in what situations it is used.

**FUTURE CONTINUOUS**

| Use | Example |
|---|---|
| Actions in progress at a point in the future | At this time tomorrow, our team **will be conducting** system maintenance to ensure seamless operations. |
| Habits or repeated actions at a point in the future | In the future, we'**ll** all **be flying** around using jet-packs. |

**Task 24. PRACTICE.** If the word or phrase in bold in each sentence is correct, put a tick (v). If it is wrong, write the correct variant.

| | |
|---|---|
| 1. Our team **is conducting** a webinar on VR this Friday. | …….. |
| 2. Will the developers **work** on the software update at this time next week? | …….. |
| 3. The daily data backup **is taking** place at midnight. | …….. |
| 4. Unfortunately, at this time at the end of the day, we won't **be completing** the data migration. | …….. |
| 5. We can begin the testing phase as soon as the programmers **will finish** coding. | …….. |
| 6. At this time next year, VR gaming companies **are going to release** highly anticipated games. | …….. |
| 7. They **are testing** the software patches this month. | …….. |
| 8. I believe that this time next year programmers **will write** code for quantum computers. | …….. |
| 9. They'**re going to focus** on web development to create interactive websites. | …….. |

| | |
|---|---|
| 10. I have a feeling that the data backup process **will take** longer than expected. | …….. |

**Task 25. PRACTICE.** Work with your partner. Look at the beginnings of the stories and make up a continuation.

**Story 1**

As Mark puts on his VR headset tonight, he can feel the world around him fading away. He knows that in the next few hours, he will be immersing into an incredible adventure...

**Story 2**

It is the eve of the biggest VR gaming competition of the year. The tension in the room is high as players from around the world gather to compete for the grand prize. Little do they know, the challenges that await them will be...

## UNIT 5.2 Augmented and Mixed Realities

### SPEAKING

**Task 26. COLLABORATE.** Work in small groups. Look at this questionnaire about what you, and people you know, did, or do, about immersive realities. Tick the appropriate boxes. Then answer the questions below.

| You | A friend | Someone in your family | |
|---|---|---|---|
| □ | □ | □ | have used AR apps |
| □ | □ | □ | have experienced MR |
| □ | □ | □ | have seen AR in public places (museums, shopping malls) |
| □ | □ | □ | have tried VR headsets |
| □ | □ | □ | have used MR devices for work or study |

1. What is mixed reality? How is it different from augmented reality and virtual reality?
2. How is mixed reality used in daily life?
3. What are the benefits of mixed reality?
4. What concerns do people have about using mixed reality widely?

**Task 27. COMMUNICATE.** Read the following news and discuss the questions below in pairs.

A new mixed reality app has become a sensation, it allows users to interact with virtual characters in the real world. The app, designed for smartphones, uses the phone's camera and sensors to place virtual elements into live environments. While many users enjoy the innovative gameplay, some experts warn that overuse could lead to a blurring of lines between reality and virtuality.

1. Why do you think the mixed reality app became so popular?
2. What are the risks associated with spending too much time on mixed reality apps?
3. How can users maintain a balance between virtual and real-world experiences?
4. How might mixed reality transform our interaction with technology?

Read the responses from two characters involved in the problem of the mixed reality app and answer the questions below.

**User's View**

I love the new mixed reality app! It's so cool to see virtual characters in my own neighborhood. I can play games, solve puzzles, and even have conversations with these characters. It's a fun way to make my daily walks more interesting. I just need to remember not to bump into things while using it!

**Expert's View**

While mixed reality is an exciting technology, users need to be cautious about its impact on their perception of reality. If people spend too much time in virtual spaces, they might start ignoring real-world interactions. Additionally, using MR apps while walking or driving can be dangerous. It's important to use these apps in safe environments and limit their use to prevent accidents.

1. Why does the user enjoy the mixed reality app?
2. What concerns does the expert have about mixed reality?
3. What safety measures should users take when using mixed reality apps?
4. What rules should be in place for the safe use of mixed reality technology?

**Task 28. COMMUNICATE.** Discuss these situations in pairs.

1. A friend is using a mixed reality app while walking in a busy street. What advice would you give to ensure their safety?
2. Your university is considering using mixed reality to enhance learning. What subjects could benefit from MR, and how can it be used effectively?
3. A mixed reality app allows users to create virtual graffiti on real buildings. Is this ethical? Discuss the potential consequences and ethical issues.

**Task 29. COMMUNICATE.** Complete the dialogues with appropriate ideas. Change roles.

**VR Game**

**Ned:** Harry, have you tried out that new VR game everyone's talking about?
**Harry:** …….
**Ned:** No way, that's awesome! What was it like?
**Harry:** …….
**Ned:** Wow, that sounds like an epic quest! Did you face any challenges?
**Harry:** …….
**Ned:** Haha, sounds intense! I've been wanting to try VR for ages, but I'm worried about getting motion sick. Did you feel ok?
**Harry:** …….
**Ned:** Any beginner-friendly VR experiences you'd recommend?
**Harry:** …….
**Ned:** Good to know! Maybe we should check out that VR arcade downtown sometime. We can check out what's on the horizon and see what we enjoy the most.
**Harry:** …….
**Ned:** Sounds like a plan! Let's make it happen next weekend.
**Harry:** …….
**Ned:** For sure, can't wait!
**Harry:** …….

**AR Glasses**

**Sally:** Check out these new AR glasses—UniVision, they are plug and play, Margaret!
**Margaret:** Whoa, those look cool! What's the deal with them?
**Sally:** …….
**Margaret:** No way, that's awesome! How's the display quality?
**Sally:** …….
**Margaret:** That's sick! Have you tried using them for anything practical yet?
**Sally:** …….
**Margaret:** Nice, that's some next-level convenience right there. Any downsides?
**Sally:** …….
**Margaret:** Are there any software glitches?
**Sally:** …….
**Margaret:** Nice, that's pretty neat! But do they ever feel bulky or uncomfortable to wear?
**Sally:** …….
**Margaret:** I can't wait to see these glasses.
**Sally:** …….

**Task 30. DISCOVER.** Answer each question honestly to discover your immersive reality alter ego. Choose the option that resonates with you the most, and count points for each answer. Add up your total score at the end and read interpretation of results.

**Immersive Realities Fun Personality Quiz**

1. If you could live in any virtual world, which would you choose?
   A. A magical world filled with wizards and dragons (4 points)
   B. A futuristic city with high-tech gadgets (3 points)
   C. A tropical paradise with beautiful beaches and crystal-clear waters (2 points)
   D. A cartoon world where anything is possible (1 point)
2. When it comes to augmented reality, what interests you the most?
   A. Using AR to bring everyday objects to life (4 points)
   B. Exploring AR apps to learn new skills (3 points)
   C. Experimenting with AR filters and effects for fun and memorable selfies (2 points)
   D. Curious about AR but haven't explored it much yet (1 point)
3. What's your favorite part of virtual reality gaming?
   A. Immersing myself in epic adventures and exploring new worlds (4 points)
   B. Competing with friends in virtual reality multiplayer games (3 points)
   C. Feeling really excited and getting a big rush of energy. (2 points)
   D. Trying out unusual VR experiences and mini-games (1 point)
4. How do you see using mixed reality technology in your daily life?
   A. Using holographic displays for super productivity (4 points)
   B. Using mixed reality for interactive learning (3 points)
   C. Experimenting with mixed reality art and creative projects (2 points)
   D. Exploring mixed reality apps for entertainment (1 point)
5. In immersive environments like virtual or augmented reality, what excites you the most?
   A. Engaging in storytelling and narratives (4 points)
   B. Customizing virtual spaces (3 points)
   C. Experimenting with new applications (2 points)
   D. Collaborating with others in virtual communities (1 point)

**Interpretation of Results**

**5-8 Points:** You're like a digital explorer, always eager to discover new virtual realms. Your curiosity and adventurous spirit drive you to explore new places and experiences.

**9-13 Points:** You have a talent for adding a touch of magic to the real world through augmented reality.. You're known for your imaginative ideas and ability to bring them to life in the AR environment.

**14-20 Points:** You're a visionary when it comes to blending the boundaries between the virtual and real worlds. You push the limits of technology and imagination. You're not afraid to challenge traditions and explore the endless possibilities of merging digital and physical worlds.

## WATCHING

**Task 31. COMMUNICATE.** Work in pairs. Discuss the questions below.

1. What do you think are the biggest problems in traditional online shopping? How do you think technology can solve these problems?
2. How can augmented reality improve the online shopping experience?
3. How can augmented reality change the way companies advertise their products?

**Task 32. WATCH FOR DETAILS.** Scan the QR code and watch the video "The Future of Advertising". Choose the correct answers to the questions.

1. What can augmented reality apps allow users to do before buying items online?
   A) Read reviews
   B) Test items
   C) Compare prices
   D) Watch videos
2. How much was spent on AR campaigns worldwide last year?
   A) 1.6 billion euros
   B) 2.4 billion euros
   C) 3.2 billion euros
   D) 4.5 billion euros
3. What does Eliza Du, an expert on holographic AR, say about the purpose of AR in marketing?
   A) It's about selling you something directly.
   B) It's about letting you try something before you buy it.
   C) It's about showing you advertisements.
   D) It's about collecting your data.
4. What is needed to use holographic AR apps?
   A) AR glasses
   B) VR headset
   C) A smartphone
   D) A holographic projector
5. How do holographic AR apps work with a smartphone?
   A) They use filters like those on Snapchat or Instagram.
   B) They use built-in projectors.
   C) They require special software installation.
   D) They use Bluetooth.
6. What features does the app recognize when scanning a room?
   A) Colors and textures
   B) Ceiling height and floor type
   C) Electrical outlets
   D) Windows and doors
7. What technology makes it possible to place furniture precisely in the room using the app?
   A) GPS
   B) Wi-Fi positioning
   C) Tracking technology
   D) Infrared sensors
8. What aspect of traditional furniture shopping does the video say is still a reality?
   A) Comparing prices
   B) Assembling the furniture yourself
   C) Visiting multiple stores
   D) Lugging new furniture up the stairs

**Task 33. COMMUNICATE.** Work in pairs. Study the advert of RoomRender AR app for interior designers. Then read the client's request and discuss how this app can help solve the problem.

> A client wants to renovate their office space but is unsure about the layout. They are particularly concerned about maximizing natural light and optimizing the placement of furniture. How can RoomRender AR help solve this problem?


## LISTENING

**Task 34. EXPLORE THE WORDS.** Match the words from the dialogue you are going to listen to their definitions.

| | |
|---|---|
| 1. **fitting room** | a) an image produced by light bouncing off a surface, like a mirror |
| 2. **overlay** | b) a small space for trying on clothes in a store |
| 3. **reflection** | c) to exceed a boundary or limit |
| 4. **tap** | d) to place something on top of another, usually transparently |
| 5. **draw** | e) limited in size or scope; often for testing |
| 6. **overstep** | f) something that attract attention or interest |
| 7. **small-scale** | g) a quick touch, especially on a touchscreen |

**Task 35. LISTEN FOR DETAILS.** Scan the QR code and listen to the dialogue between a fashion designer and a retail store manager discussing the use of augmented reality in fashion. Choose the correct answers to the questions.

1. What's the main advantage of virtual fitting rooms?
   A. Customers can try on clothes at home.
   B. Stores can sell clothes faster.
   C. Customers can try on clothes without using a fitting room.
   D. AR makes shopping more fun.
2. What devices can be used for virtual fitting rooms?
   A. Smartphones or tablets.
   B. Augmented reality headsets.
   C. Virtual reality goggles.
   D. Smart watches.
3. How does augmented reality personalize shopping?
   A. It allows customers to design their own clothes.
   B. It suggests outfits based on customers' preferences and past purchases.
   C. It makes shopping more colorful.
   D. It lets customers interact with store employees in AR.
4. What is Carlos concerned about with AR in retail?

A. Customers not liking AR.
B. Costs of implementing AR.
C. Employees needing extra training.
D. Technical issues and privacy.

5. What is Julia's first suggestion for using AR in the store?
   A. Set up AR throughout the store.
   B. Hire AR experts to train the staff.
   C. Start with a small pilot with one or two virtual fitting rooms.
   D. Create AR experiences online.
6. What does Julia say about customer data when using AR?
   A. Customer data can be used for marketing.
   B. Customer data should be stored offline.
   C. Customer data should be protected and boundaries respected.
   D. Customer data can be shared with other stores.

**Task 36. COMMUNICATE.** Role play a dialogue between a museum curator and technology developer discussing using AR for museum exhibits.
**Student A.** You are a museum curator. You want to attract more visitors and provide interactive experiences.
**Student B.** You are a technology developer. You explain how AR can bring exhibits to life.

## READING AND VOCABULARY

**Task 37. WORK WITH WORDS.** Read the passage below about AR devices and their impact. Circle the correct word in each pair of options. Each pair has one word that fits best in the context of the sentence.

### AR Devices

Augmented reality devices are 1) **innovative / innovations** tools that overlay digital information onto the real world. They provide users with interactive experiences by 2) **combating / combining** real and virtual elements. These devices are used in a variety of 3) **applications / applies**, including gaming, education, and industrial training.

One of the 4) **advantages / advantages'** of AR devices is their ability to enhance learning 5) **with / by** providing visual and interactive content. For example, students can use AR devices to explore 3D models 6) **on / of** historical artifacts, making education more 7) **engaging / engagement**. In healthcare, AR devices are used to assist surgeons 8) **while / during** operations, offering real-time 9) **data / datum** and visuals.

AR devices also offer 10) **solitudes / solutions** for businesses by improving product visualization and 11) **customer / custodian** engagement. Retailers can use AR to allow customers to visualize products in their homes 12) **beforehand /before** purchasing. This can lead to increased 13) **sales / sale** and customer satisfaction.

Despite their benefits, AR devices come with 14) **challenges / challenges'**. Privacy is a significant concern, as AR devices often require access 15) **to / from** cameras and personal data to function. There are also 16) **technical / technically** hurdles related to battery life and 17) **processing / procession** power. Furthermore, the widespread adoption of AR technology relies on developing more affordable and 18) **accessible / acceptability** devices.

In the future, AR devices are expected to become more 19) **integrated / integrating** into daily life. Innovations in AR technology will likely make these devices more 20) **versatile / versions**, improving their application in various fields such as education, healthcare, and entertainment.

**Task 38. EXPLORE THE IDIOMS.** Study the meaning and examples of IT related idioms. Then use them in sentences.
**Back to the drawing board** – to start over again because the previous attempt was unsuccessful.

*Our initial software design didn't meet the client's requirements, so it's **back to the drawing board** for us.*

**On the horizon** – expected or anticipated in the near future.

*The release of the new software update is **on the horizon**, and we're looking forward to its arrival.*

**Bells and whistles** – additional features that are not essential but enhance the overall appeal or functionality.

*The basic version of the software meets our needs, but we might consider adding **some bells and whistles** for extra functionality.*

**Crunch time** – intense pressure or stress.

*The team worked overtime during crunch time to fix the bugs in the software before the product launch.*

**Hit the ground running** – to start something immediately with great energy and enthusiasm.

*As soon as the new software was released, the marketing team was ready to **hit the ground running** with promotional campaigns.*

**The big picture** – broader view of a situation.

*Before making any decisions, it's important to consider **the big picture**, or the overall situation, rather than just focusing on small details.*

**In the pipeline** - being worked on or planned for the future.

*There are some exciting features **in the pipeline** for the next software update.*

1. Mark always kept _____ in mind when designing new software.
2. The augmented reality glasses didn't function as intended, so the designers had to go _____ to redesign them.
3. With only a few days left before the presentation, it was _____ for the designers to perfect the virtual reality experience.
4. The augmented reality headset had all_____, including gesture controls and immersive sound effects.
5. With advancements in augmented reality technology, widespread adoption of AR glasses is_____.
6. As soon as the augmented reality game was launched, players were eager to _____ and start playing.
7. Our IT team has some exciting projects _____ for next quarter.

**Task 39. COMMUNICATE.** Tell the story of a VR game that initially received poor reviews. Describe how the development team realized they had to go back to the drawing board and their plan for redesigning the game.

**Task 40. COLLABORATE.** In pairs, discuss a time when you experienced crunch time. Share strategies that helped you cope with the pressure and complete your tasks.

**Task 41. WRITE.** Write an advertisement for a new AR app that includes all the bells and whistles. Highlight both the basic and unique features that make it appealing. Use the idioms above.

## SPEAKING

**Task 42. COMMUNICATE.** Rank these AR/MR applications with your partner. Put the most influential application at the top. Change partners often and share your rankings.

- gaming and entertainment
- education and training
- healthcare
- retail and shopping
- real estate
- industry and manufacturing

- travel and tourism
- social media and communication

**Task 43. COMMUNICATE.** Work in pairs. Identify the root of the problem and suggest potential solutions.
TechSolutions Inc. recently launched the ARDrive Pro, an advanced augmented reality navigation system for cars. This system integrates AR into the car's windshield, projecting turn-by-turn directions, road hazards, and real-time traffic information directly onto the driver's field of view. However, users have reported significant issues with the system, leading to potential safety concerns.

**Olivia W.**
I'm having trouble with ARDrive Pro in my car. The GPS is really off in downtown areas – it keeps giving me wrong turns and delays. Just the other day in Chicago, it told me to turn where there was no road. This is really frustrating and dangerous. Can you fix this?

**Larry H.**
I'm experiencing glitches with my ARDrive Pro. The overlays freeze and don't update, especially on highways. This caused me to miss an exit yesterday. It's happening a lot lately. What can be done to fix this?

**Oliver J.**
The ARDrive Pro displays are too distracting, especially in heavy traffic. There's too much info covering my view, and it almost caused an accident at an intersection last week. Can you make the AR projections less intrusive?

**Betty G.**
I'm having issues with ARDrive Pro when driving at night. The AR overlays are too dim and hard to see, making navigation really difficult. Last night, I missed a turn because the directions were barely visible on the windshield. Can this be improved?


## LANGUAGE FOCUS

**Task 44. STUDY AND ANALYZE.** Look at the rule about Future perfect, study in what situations it is used.

**FUTURE PERFECT**

| Use | Example |
|---|---|
| Actions which are completed some time between now and a point in the future | By 2030, companies **will have integrated** AR technology into most industrial equipment. |

**Task 45. PRACTICE.** Complete the sentences with Future Simple, Future Perfect and Future Continuous, Present Simple and Present Continuous of the verbs in brackets.

1. I _____ (meet) with the IT team at 10 AM tomorrow to discuss the project's timeline.
2. What types of AR hardware _____ (leading tech companies /develop) by 2025?
3. He _____ (install) the latest software update once it's available.

4. By the end of the day, the programmers _____ (complete) the coding for the virtual reality game.
5. When the new software update_____ (arrive), we can install it.
6. At this time tomorrow, we _____ (test) the new VR headset to ensure it functions flawlessly.
7. The VR conference _____ (start) on Friday at 9 AM with a keynote speech.
8. Keep an eye on the server status while you _____ (monitor) the system's performance.
9. The development team _____ (create) groundbreaking AR glasses within the next two years.
10. Tomorrow, while you're at the conference, we _____ (conduct) software maintenance.
11. I _____ (see) the VR designers at 3 PM to discuss the project's progress.
12. By the end of the year, they _____ (develop) the most advanced neural network.
13. We can test the new software update after we _____ (receive) it.
14. They _____ (test) the new software on Friday to ensure its compatibility with AR devices.
15. This time in two weeks, our developers _____ (code) the next-generation holographic display.

**Task 46. PRACTICE.** Work with your partner. Continue the sentences using the corresponding tenses to express the future.

1. In a few years, computer processors will become so advanced that...
2. In the near future, virtual reality will...
3. Once I finish my coding course, I hope to create...
4. In the coming months, virtual reality headsets will become more…
5. Over the next decade, we will witness remarkable developments in …
6. Ten years from now, the use of augmented reality in education will
7. In the future, computer interfaces will be controlled using...
8. I believe that by 2030, augmented reality will be integrated into...
9. My long-term career goal is to specialize in...
10. Over the next few months, I'll be focusing on developing...
11. In the coming years, VR will play a significant role in...
12. Within the next decade, virtual reality simulations will …

## UNIT 5.3 Metaverse

### WATCHING

**Task 47. COMMUNICATE.** Work with a partner. Discuss the questions below.

1. What are the components of the word "metaverse," and what do they represent?
2. What kind of activities do you think people might do in the metaverse?
3. How do you think people will interact with each other in the metaverse?

**Task 48. WATCH FOR DETAILS.** Scan the QR code and watch to the video "Work in the Metaverse". Answer the questions below.

1. Why does the speaker think remote work will continue for many people?
2. How does the metaverse aim to make remote work better?
3. How do colleagues talk and work together in the metaverse without being in the same place?
4. Why might a virtual office be more flexible or convenient than a physical one?
5. How does the virtual environment let you concentrate on tasks?
6. What does the mention of "sweatpants" suggest about working in the metaverse?

### READING AND VOCABULARY

**Task 49. EXPLORE THE WORDS.** Read the sentences and try to understand the bold words from the context. Match the words with their definitions.

1. Each **iteration** of the VR game introduced more lifelike graphics and better controls.
2. Developers plan to **incorporate** advanced VR and AR features into the metaverse, creating more realistic interactions.
3. The new technology **catapulted** the startup into the mainstream market.
4. In augmented reality games, players enjoy an **embodied** gaming experience, where their physical movements influence in-game actions.
5. The tech giant's **pivot** from hardware to software development enabled it to dominate the market for enterprise solutions.
6. The goal of the metaverse is to provide an **infinite** virtual space where users can endlessly explore, create, and connect.
7. Developers are working hard to **accomplish** the creation of a fully interactive and immersive virtual reality environment.
8. The healthcare platform aims to be **interoperable** across different hospitals and clinics.
9. Many companies are **hesitant** to invest in new technologies without seeing proven results.
10. The **pervasive** use of smartphones has changed how people communicate and interact.

a) _____ (v) too successfully complete a task.
b) _____ (n) a new version or form of something.
c) _____ (adj) limitless or endless in space, extent, or size.
d) _____ (adj) spreading widely throughout an area or a group.
e) _____ (v) to quickly push something to a higher level.
f) _____ (adj) represented in a visible form.
g) _____ (v) to integrate a part into a whole.
h) _____ (adj) uncertain to take action.
i) _____ (adj) capable of working with different systems.
j) _____ (n) a significant change in strategy or direction.

**Task 50. READ FOR DETAILS.** Read the text and choose the correct answers to the questions.

# The Rise of the Metaverse

The metaverse is a term that refers to a future iteration of the internet that includes immersive virtual worlds where people can connect with friends, work, play games and shop. You can think of the metaverse as a cyberspace, or an evolved, three-dimensional internet where logging in isn't necessary. It may also incorporate elements of virtual and augmented reality. At the moment, the idea of one true metaverse is still hypothetical. But that hasn't stopped some tech giants from building metaverse-like experiences, such as virtual fashion shows, live concerts and workspaces.

The term 'metaverse' first appeared in author Neal Stephenson's 1992 science-fiction novel Snow Crash, which describes a future where millions of people use virtual avatars to participate in a cyberspace realm. This concept was further popularized in another sci-fi novel, Earnest Cline's 2011 Ready Player One, in which everyday people use VR headsets and log into a virtual world to live out their fantasies.

The idea of metaverse can be noticed in various games and platforms that popped up in the 21st century, including Second Life, Fortnite, Roblox, Minecraft, Sandbox and Decentraland.

In 2021 Mark Zuckerberg catapulted the idea of the metaverse into the larger public consciousness. "The next platform will be even more immersive – an embodied internet where you're in the experience, not just looking at it," he wrote in an open letter explaining his company's pivot. "We call this the metaverse, and it will touch every product we build."

In theory, the metaverse works by allowing an infinite number of people to synchronously connect together in real time in an always-on virtual environment that's immersive, three-dimensional and connects to our physical world in seamless ways. In reality, it's a tricky technological task to accomplish. Such a thing requires enormous amounts of computer processing and advancements made in smartphone, gaming device and VR and AR headset technology. Plus, a single, interoperable metaverse, one that would let users carry their identities and digital collectibles across platforms owned by different companies, would require serious coordination and cooperation between various organizations.

Historically, companies (gaming companies especially) have been hesitant to allow their assets to be compatible with a competitor's ecosystem. Playing nicely with other platforms, the logic goes, would mean giving up some amount of control. But for a fully realized metaverse to come about, such cooperation will be necessary.

Just like no one entity "owns" the internet, it's doubtful that anyone, be it a government organization or multinational corporation, will have sole ownership of the metaverse. Rather, the metaverse will likely emerge with a group of companies, collectives and independent developers operating under some agreed-upon policies and protocols.

The Khronos Group is one organization trying to make that happen. OpenXR, Khronos Group's royalty-free standard VR and AR developers use to create cross-platform experiences, has already gained widespread industry support and demonstrated the benefits of interoperability. So there's hope that the group's latest project, the Metaverse Standards Forum, a community made up of more than 1800 standards organizations, nonprofits and companies, will devise and promote ways to build an inclusive and pervasive metaverse.

(adapted from https://builtin.com/articles/what-is-metaverse)

1. What does the term "metaverse" refer to?
   A) A new social media platform
   B) An online three-dimensional website
   C) An evolved, three-dimensional internet with virtual worlds
   D) A type of virtual reality game
2. Which novel first introduced the term 'metaverse'?
   A) "Ready Player One" by Ernest Cline
   B) "Snow Crash" by Neal Stephenson
   C) "Neuromancer" by William Gibson
   D) "The Matrix" by William Gibson

3. Which phrase did Mark Zuckerberg use to describe the new platform his company was working on?
   A) "A new cyberspace"
   B) "An embodied internet"
   C) "A virtual gaming arena"
   D) "A digital learning tool"
4. How does the metaverse work in theory?
   A) It operates through a single large corporation's control
   B) It allows offline access to virtual content
   C) It uses asynchronous communication methods
   D) It allows infinite people to connect in real-time in a virtual environment
5. What is necessary for a fully realized metaverse?
   A) Exclusive ownership by a single company
   B) A large, centralized data server
   C) Coordination and cooperation between various companies
   D) A new internet protocol
6. What common attitude among companies poses a challenge to creating a unified metaverse?
   A) Doubt to allow compatibility with competitors' platforms
   B) Competition over customer data
   C) Willingness to share assets
   D) Lack of interest in virtual reality
7. What is the role of the Metaverse Standards Forum?
   A) To make up policies for building an inclusive metaverse
   B) To fund metaverse projects
   C) To create proprietary VR hardware
   D) To provide entertainment in the metaverse

**Task 51. COMMUNICATE.** Work in pairs. Discuss the questions below.

1. How do you feel about the idea of the metaverse being an always-on virtual environment?
2. Do you think it's important for different companies to work together to create the metaverse?
3. Who do you think should have ownership over the metaverse?

**Task 52. WORK WITH WORDS.** Read the text and fill in the missing words. There are two extra words you do not need to use.

## Spatial Computing

| |
|---|
| manipulate ● algorithms ● sensors ● provided ● differently ● coexist ● realistically ● overlaid ● environment ● positioned |

Spatial computing in metaverse begins with the process of spatial mapping, where 1) _____ such as depth cameras, LiDAR, or GPS devices capture data about the physical 2) _____. This data is then processed using computer vision 3) _____ and machine learning techniques to create detailed 3D maps of the surroundings. These maps provide spatial context and allow virtual content to be accurately 4) _____ and anchored within the physical world.

Spatial computing enables mixed-reality interactions where virtual and physical elements 5) _____ and interact within the same environment. Users can 6) _____ virtual objects, interact with virtual characters, and experience dynamic digital content 7) _____ onto physical surfaces. Spatial computing algorithms ensure that virtual content behaves 8) _____ within

the physical space, taking into account factors such as obstacles, lighting, and physics-based interactions.

**Task 53. READ FOR DETAILS.** Work in A/B/C groups. You will each read a text about examples of metaverse platforms.

- First, look through your information and use the items from the word box to complete the text. Then prepare a mini presentation about your information for the other students in your group, including the underlined items in the test. You will need to cover your information and remember what to say, using your own words.
- Listen to the other two presentations and ask questions.
- Read through the other two texts and add the missing words.

| realm ● transactions ● real-world ● immersive ● games avatars ● scanning ● goods |
|---|

**Group A**

**Decentraland**

Decentraland is a blockchain-based virtual social environment. It's used to build, trade, earn money, and explore virtual worlds. It's essentially a digital journal that permanently records bitcoin 1) _____ across a network of computers and serves as the foundation for the universe of Decentraland. It provides exceptional opportunities for both studying and enjoying virtual experiences. Decentraland can be used to conduct meetings and trade in marketplaces for virtual 2) _____, among other things. As in real life, interacting with other members is simple.

**Group B**

**Bloktopia**

Bloktopia uses virtual reality to provide users with a/an 3) _____ experience. It is a 21-story virtual structure representing the 21 million Bitcoins currently in use. With new virtual experiences, it provides a variety of revenue-generating potential. People can design their 4) _____, participate in numerous activities, learn about cryptocurrencies, and purchase virtual "real estate" in the tower. Using the platform's builder tool, you can also use this real estate to make artwork, 5) _____, sequences, and other things.

**Group C**

**Metahero**

The Metahero project offers practical technology that lets users scan actual objects and move them into the Metaverse rather than a virtual 6) _____. It focuses on bringing physical artifacts into the digital world using ultra-HD photogrammetric 7) _____ technologies. With their 3D avatars, users can use Metahero as a portal to explore the NFT, social media, fashion, and other aspects of the Metaverse. Metahero creates ultrahigh-definition avatars from 8) _____ things, including people.

**Task 54. COMMUNICATE.** Work in pairs. Discuss the questions below.

1. Which metaverse would you like to visit? Why?
2. How do you think trading virtual goods in metaverses affects real-world economics?
3. In what ways can metaverse platforms provide educational opportunities?
4. If you wanted to create your own metaverse, what would it be like?

## LISTENING

**Task 55. COMMUNICATE.** Work in pairs. Discuss the questions below.

1. Have you ever played "The Sims"? If yes, what do you like most about the game?

2. What makes “The Sims” unique compared to other simulation games?
3. Can the concept of “The Sims” be considered a type of metaverse?

**Task 56. LISTEN FOR MAIN IDEA.** Scan the QR code and listen to the dialogue “The Sims Metaverse” where two gamers are discussing “The Sims” and comparing it with the metaverse. Answer the questions below.

1. What does The Sims game let you do that is like a metaverse?
2. What are some good things about turning The Sims into a metaverse, mentioned by gamers?

**Task 57. LISTEN FOR DETAILS.** Listen to the dialogue again and fill in the words in the sentences below.

1. In The Sims, you can build custom homes_____, including picking out furniture, wall colors, and decorations to give each room a unique vibe.
2. Customizing a Sims' house can take hours, with decisions ranging from whether to add a pool in the backyard or a _____ with a hot tub.
3. The coolest part is that you can explore other people's_____ and even get your Sims to date each other.
4. The Sims is heading to the metaverse direction and now it feels like a _____version of it.
5. Creating your own dream house, throwing_____, and living out wild stories in The Sims is like directing your own movie.
6. The latest gamer’s creation is a _____with an underground rave room.

## SPEAKING

**Task 58. COMMUNICATE.** Work in pairs. Read the preferences of various people regarding their ideal metaverse experiences. Choose three points you agree with and one that you do not agree with and write them in the box provided at the bottom. Share your ideas with your partner.

Three things I'd love in a metaverse experience: _____, _____, _____.
One thing I wouldn't want in a metaverse experience: _____.

**Task 59. COMMUNICATE.** Work in groups of four. Role play the situation below. Talk about why your idea for the metaverse is the best. Tell the others why their ideas might have problems. Then decide which idea is the least useful and explain why.

**Student A – Entertainment and Leisure**

You believe that metaverse will make entertainment and leisure the most exciting. Tell the others three reasons why. Tell them what is wrong with their things. Also say why professional workspaces could be less interesting, education might not feel the same as in person, and shopping might be difficult with today's technology.

**Student B – Professional Workspaces**

You believe that professional workspaces will benefit the most from the metaverse. Tell the others three reasons why. Tell them what is wrong with their things. Also say why entertainment might make people escape from real life, education might have problems working well, and shopping might not be available to everyone.

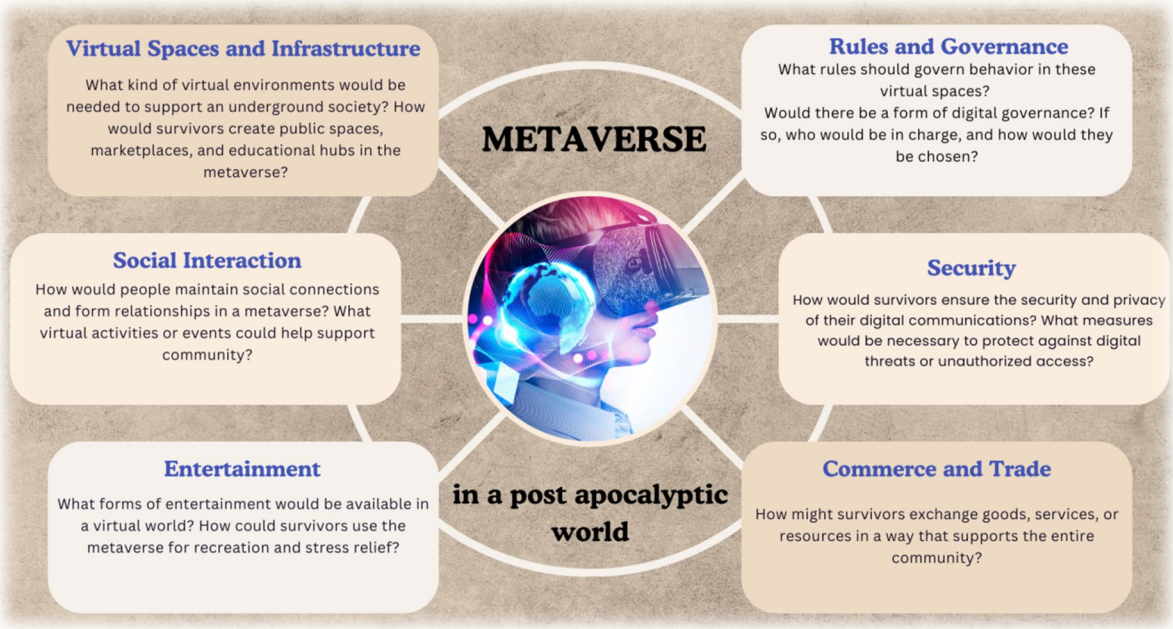
**Student C – Education and Training**

You believe that education and training will benefit the most from the metaverse. Tell the others three reasons why. Tell them what is wrong with their things. Also say why entertainment could distract people from real life, workspaces might not feel like real offices, and shopping could make economic problems worse.

**Student D – Shopping and business**

You believe that shopping and business will benefit the most from the metaverse. Tell the others three reasons why. Tell them what is wrong with their things. Also say why entertainment might not have real-life benefits, workspaces could make people less productive, and education might be hard to do practically.

**Task 60. COLLABORATE.** Work in small groups. Imagine a world where the surface has become unsuitable for life because of a deadly virus. People now live in silos, bunkers, or other safe places. With limited mobility and interaction, metaverse becomes the only way for survivors to connect, share information, and rebuild their communities. Brainstorm ideas to create a digital community in this post-apocalyptic world. After discussing the questions, present your ideas to the class.



## LANGUAGE FOCUS

**Task 61. STUDY AND ANALYZE.** Look at the rule about Future Perfect Continuous, study in what situations it is used.

### FUTURE PERFECT CONTINUOUS

| Use | Example |
|---|---|
| Actions in progress up to a point in the future | The development team **will have been working** on the virtual training platform non-stop for months. |

**Task 62. PRACTICE.** Match to make the sentences.

| | |
|---|---|
| 1. By 2024, she will have been | a) hardware for six hours by the time the meeting starts. |
| 2. Will they have been troubleshooting | b) coding mixed reality applications for a decade. |
| 3. How many hours will the IT team have been | c) relying on artificial intelligence to streamline coding processes. |
| 4. In a few years, our IT department will have been | d) will have been working on it for over a year. |
| 5. He will have been testing the mixed reality | e) software issues for the entire weekend? |
| 6. By the time the new VR game is released, the developers | f) collaborating on the integration project for several weeks. |
| 7. In the next two years, augmented reality devices will have been | g) upgrading the company's software continuously. |
| 8. In the future, programmers will have been | h) resolving network problems before the conference? |
| 9. In five years, I'll have been | i) studying computer science for a decade, and I hope to have a Ph.D. by then. |
| 10. After the merger, our IT departments will have been | j) evolving to provide more realistic simulations. |

**Task 63. PRACTICE.** Choose the correct variant.

1. Next year, we _____ a new line of virtual reality headsets.
   A) will launch B) will have launched C) are launching D) launch
2. By 2030, augmented reality _____ the way we interact with our environment.
   A) is going to reshape B) will reshape C) will be reshaping D) will have reshaped
3. We _____ the technology expo next month to showcase our latest innovations.
   A) are attending B) attend C) will attend D) will have been attending
4. By the end of the week, the software developers _____the new app.
   A) will complete B) will be completing C) will have been completing D) will have completed
5. When the project is finished, the team _____on it for over a year.
   A) work B) will have been working C) is working D) will be working
6. By the time the event starts, the developers _____ tirelessly for 48 hours straight.
   A) will be coding B) are coding C) will have been coding D) will have coded
7. The VR gaming industry _____ substantial growth in the coming years.
   A) is going likely to experience B) will likely experience C) will have likely experienced D) is likely experiencing
8. This time next month, the team _____a new AR software for educational purposes.
   A) are testing B) will be testing C) are going to test D) will test
9. As soon as the VR headset_____, we will be trying the latest simulation.
   A) will arrive B) will be arriving C) will have arrived D) arrives

10. I'm sure he _____ the VR game by the weekend.
    A) will complete  B) will be completing  C) is completing  D) will have completed
11. While I'm at the tech conference, our AI assistant _____ the office.
    A) will be managing  B) is manage  C) will manage  D) will have managed
12. By next year, our data center _____ at maximum capacity for a long time.
    A) will have been operating  B) will operate  C) will have operated  D) operates
13. The company _____ its innovative AR project in the coming months.
    A) launches  B) is launching  C) will launch  D) will have launched
14. By the time she retires, she _____ our cybersecurity department for 20 years.
    A) will manage  B) manages  C) will have been managing  D) will have managed
15. We'll continue testing until we _____ the software's compatibility.
    A) verify  B) will verify  C) will be verifying  D) will have verified