

Virtual reality and video games

■ Virtual reality

Virtual reality (VR) is an artificial environment created with software and presented to the users in such a way that they suspend belief and accept it as a real environment. On a computer, virtual reality is primarily experienced through two of the five senses: sight and sound.

The simplest form of virtual reality is a **3-D** image that can be explored interactively on a personal computer, usually by manipulating keys or the mouse, so that the content of the image moves in some direction or zooms in or out. More sophisticated efforts involve such approaches as **wrap-around** display screens, actual rooms augmented with wearable computers, and **haptics** devices that let you “feel” the displayed images.

Virtual reality can be divided into: the simulation of a real environment for training and education, and the development of an imagined environment for a game or interactive story.

The **Virtual Reality Modelling Language (VRML)** allows the creator to specify images and the rules for their display and interaction using textual language statements.

■ Video games

One of the main applications of virtual reality is in video games.



A **video game** is a game based on a story and played using an audio-visual apparatus. The interactive game can involve one or more players who have to follow rules that **constrain** their behaviour in an artificial conflict, or problem to solve, that ends with a quantifiable **outcome**. The **audio-visual apparatus** is an electronic system with computing capabilities, i.e. with input devices such as a mouse or a keyboard, and output devices, such as a screen and loudspeakers. The apparatus can be an arcade video game, a video game console, a handheld console, a computer, a PDA or a smartphone. The result is a human-computer interaction in which the video games are user interfaces.

A video game can be based on a **story**, but sometimes it is not, as in the case of abstract challenges. Narrative elements can be inserted in a video game through **back stories**, i.e. videos at the beginning, **cut scenes** between levels or to introduce a special event in the game, or **discussions** with other characters. However, the most important thing to remember about games is that they centre on play, and not on a story, as in literature or films.

to constrain: *limitare*
pinball: *flipper*
haptic: *aptico*
narrow: *stretto*

outcome: *risultato*
take for granted: *dare per scontato*
wrap-around: *avvolgente*

1 Write questions for these statements.

1. It is an artificial environment created to make people believe it is real.
2. The simplest form is a 3D-image.
3. It can be an arcade videogame, a videogame console, a computer, a handheld console, a PDA, etc.
4. It means Virtual Reality Modelling Language.
5. It can be integrated into a video game through back stories, cut scenes or discussions between characters.
6. It is a game based on a story and played with an audio-visual apparatus.

2 Read the text and answer the questions.

What if We Are Living in a Computer Simulation?

Virtual reality technology is making great advances, but it has also helped popularise a theory long debated by philosophers and now gaining supporters in Silicon Valley – that the outside world is itself a simulation.

Have you ever wondered if life is not exactly how you imagined it to be? Have you ever suffered from an identity crisis? One in which you suspected that you're not a real person, but instead an extremely sophisticated computer simulation of a real person produced by an immensely more developed civilisation than that which we take to be our own?

It's just possible that I lost you on that last point, but stay with me, because the reality we **take for granted** is coming under increasing technological and theoretical threat. Right now, I'm wearing a large case over my eyes, and headphones. I feel instantly removed from my environment. In front of me I can see a ball, which I can move by looking at a cursor. The ball travels along a **narrow** pathway in a vertiginous 3D computer simulation, and I must guide it into various targets to get to the next stages. In terms of skill, it is quite simple, but the striking

aspect of the game is the physical sensation of playing it. I feel, and therefore believe, that I am physically moving back and forth, as though I am on a chair on wheels. External reality has fallen away and I am in a strange world, anxious not to fall off the terrifying precipices. My brain sends signals to my body that create the illusion that it's shooting around like a **pinball**, when in fact I am stationary. So, from one perspective, it's just another video game with added thrills. But there's also something else going on here: a radical change of narrative perspective. Computer games are a form of story, and human beings are devoted storytellers. As Yuval Noah Harari argues in his book *Sapiens*, the ability to create fictions is what enabled us to become the most dominant species on the planet. And what are stories if not representations, or simulations, of reality?

Adapted from: <https://www.theguardian.com/technology/2017/apr/22/what-if-were-living-in-a-computer-simulation-the-matrix-elon-musk>



1. What is the philosophical question which the author refers to?
2. What are the author's reactions when experiencing VR?
3. How does the author define virtual reality?
4. Why is the ability to create stories important?



ONLINE GAMING

Online gaming is any video game that offers online interactions with other players. Online games can offer a huge amount of fun, enjoyment, teamwork, collaboration and imaginative adventure. Played healthily, they help socialisation.