Terminology in VR & AR

In this document you will find words commonly used when creating and working with virtual and augmented reality. If you can't find a word in this list, check the Terminology A–Z list.

A

Active presence (or hand presence) is an immersive state that is reached as a consequence of using a handheld device within a VR experience.

Agency is the capacity for a person to do something and/or influence an artificial environment.

All-in-one headsets (AIO) are those that pack everything needed for VR into the headset itself.

Add-on lighting is a precise lighting to illuminate details, especially faces to capture expressions and emotions.

Ambient sound the background sounds which are present in a scene or location.

Ambience is the sound character and atmosphere of a place.

Ambient lighting is a general indirect lighting for the shot to reduce shadows on people's faces and create a uniform light level throughout the space.

Ambisonic 3D sound, technique for capturing, synthesizing and reproducing a sound environment (spatialization). The listener is immersed in this virtual environment through a number of loudspeakers, varying from three to several dozen.

Augmented Reality (AR) is a technology that superimposes a digital element (2D or 3D visuals, video, sound, sensory stimuli) for a user in the real world.

Assistive Reality is a subsection of AR where information is displayed digitally, most often using AR glasses/headsets. This allows a person to view a screen within his or her immediate field of vision, hands free. Information is not over-laid with real-world views.

Avatar is a virtual representation of the user within the virtual world.

B

Brainstorming – talking openly in a group to produce an idea or a problem solution.

Binaural audio is capturing audio using two microphones to simulate sound coming from a specified location.

C

Call To Action (CTA) strategic messaging to urge viewers to take a specific action.

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Camera man – responsible for the shots, in collaboration with the DoP, controls the camera, its position and adjustment for each shot.

Clap – a small panel where the number or name of the scene is written as well as the number of the take. It produces a sound that is used in post-production and helps to synchronize sound and image.

Collision detection is when virtual objects have intersected, sometimes triggering haptic or visual feedback for the user.

Content is any object or experience that is made for the virtual reality world.

D

Dialogue is the sound produced by the characters.

Director of photography (DoP) Responsible for the shots and the camera. Technical leader for camera and lights.

Degrees of Freedom (DoF), referred to rotational freedom. It is a term for the movement around an axis or along an axis. Different VR headsets allow for different degrees of freedom and movement. We live in a 3D world and interact with 6 degrees of freedom/movement.

- 3 DoF – indicates how a headset or other device is tracked in three types of directional rotations: rolling (where the head pivots side to side), pitching (where the head looks up and down), and yawing (when the head looks left or right).

- 6 DoF – a 6 DoF headset allows an individual to rotate the head as well as move around in space. The three added movements are elevating (where a person moves up or down), strafing (where a person moves left or right), and surging (when a person moves forward or backward, like walking).

E

Effect light is the use of light effects for a specific action, added to the general lighting atmosphere.

Embodied presence is acknowledging the existence of your body within a virtual reality VR experience.

Emotional design is to create an experience that anticipates and accomodates for the user's feelings, actions and needs.

Emotional presence is a state that evokes an emotional response from the user as in feelings of empathy, fright, joy, wonder, within a virtual reality experience.

Experience design is thinking about solving a problem, prompt a certain emotional response or trigger a specific behaviour. Experience design always focuses on the user.

Experiencer (also viewer, user or player) a person that is taking part in a VR experience.

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Terminology in VR & AR

F

Field of View (FoV) is the view that is visible to a user when turning his/her head from a fixed position.

G

Gaze the direction the viewer is looking in.

Gaze-activated content when content e.g. the sound, the way a performer within a scene acts, the narrative, is directly impacted by the user's gaze.

Geo-blocking is restricting access to content depending on location, usually established through an IP address.

Gesture communication via the body, for example hands or head, that when tracked by a motion sensing camera attached to a computer, can be interpreted as movement and mirrored in a virtual world.

Ghost (story) a virtual reality experience where the user is an observer of the narrative and not capable of interacting with the world or characters

H

Haptic technology is a technology that can create an experience of touch by applying forces, vibrations, or motions to the user.

Head tracking is a method used by a headset to project the correct image by tracking a user's head movements.

High Definition HD resolution refers to an image not less than 720p but more likely 1080p in height.

Hotspot is an interactive spot within the artificial experience that reveals more content.

I

Immersion a psychological sense of feeling present in a virtual environment.

Interactive narrative is a digital interactive experience in which users create or influence a storyline through their actions.

J

Judder, shaking or stuttering experienced inside of a VR headset.

K

Kinesthetic dissonance the sensory disconnect experienced when touch or motion feedback from a virtual environment is delayed or absent.

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Terminology in VR & AR

L

Latency is the delay between when a signal is sent and when it is received at its destination. Reducing delay allows for a more responsive experience.

Location sound (or direct sound) sound recorded during production.

Locomotion refers to the movement in the virtual world and in the real-world while present in the virtual world. Locomotion mechanics has three primary categories; perambulation, teleportation and transportation.

M

Moodboard a collection of images, objects and words that are used to express the chosen style, it helps develop the creative idea.

N

Narration 360° The distinctiveness of narration in 360° lies in the fact that the viewer can look wherever they wish. They must be oriented and encouraged to take the desired path for the narrative to make sense and move seamlessly.

Narrative design is a combination of the visual and the verbal. Used to create stories that are well paced. It should draw the viewers in, and also captivate them on their journey through the content.

Non-compliant user is a user who doesn't interact with a responsive narrative.

Non-player characters (NPCs) are computer-controlled characters.

P

Place illusion (PI) the feeling of existing in a place.

Plausibility illusion (Psi) accepting that the depicted scenario is actually happening.

Point of view (PoV) from a camera perspective.

Presence (also called telepresence) when the user has a feeling of being in and of the virtual world, ignoring physical world distractions.

Q

Quantum storytelling is a new, non-linear way of telling a story. In this type of storytelling it's the middle that is important. In it there are multiple possibilities that can unfold.

R

Responsive narrative see Interactive narrative

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S

Signposts are cues in the environment that are placed there to help the user to interpret the virtual environment.

Social presence when a user chooses to actively engage with others in a VR experience.

Story generator is a digital agent that monitors the virtual world

Storyboard is a document that is used to plan all of the shots that will make up the film, both at the technical level (framing, camera movements, special effects) and the artistic level (built sets, virtual sets).

T

Telepresence see Presence.

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