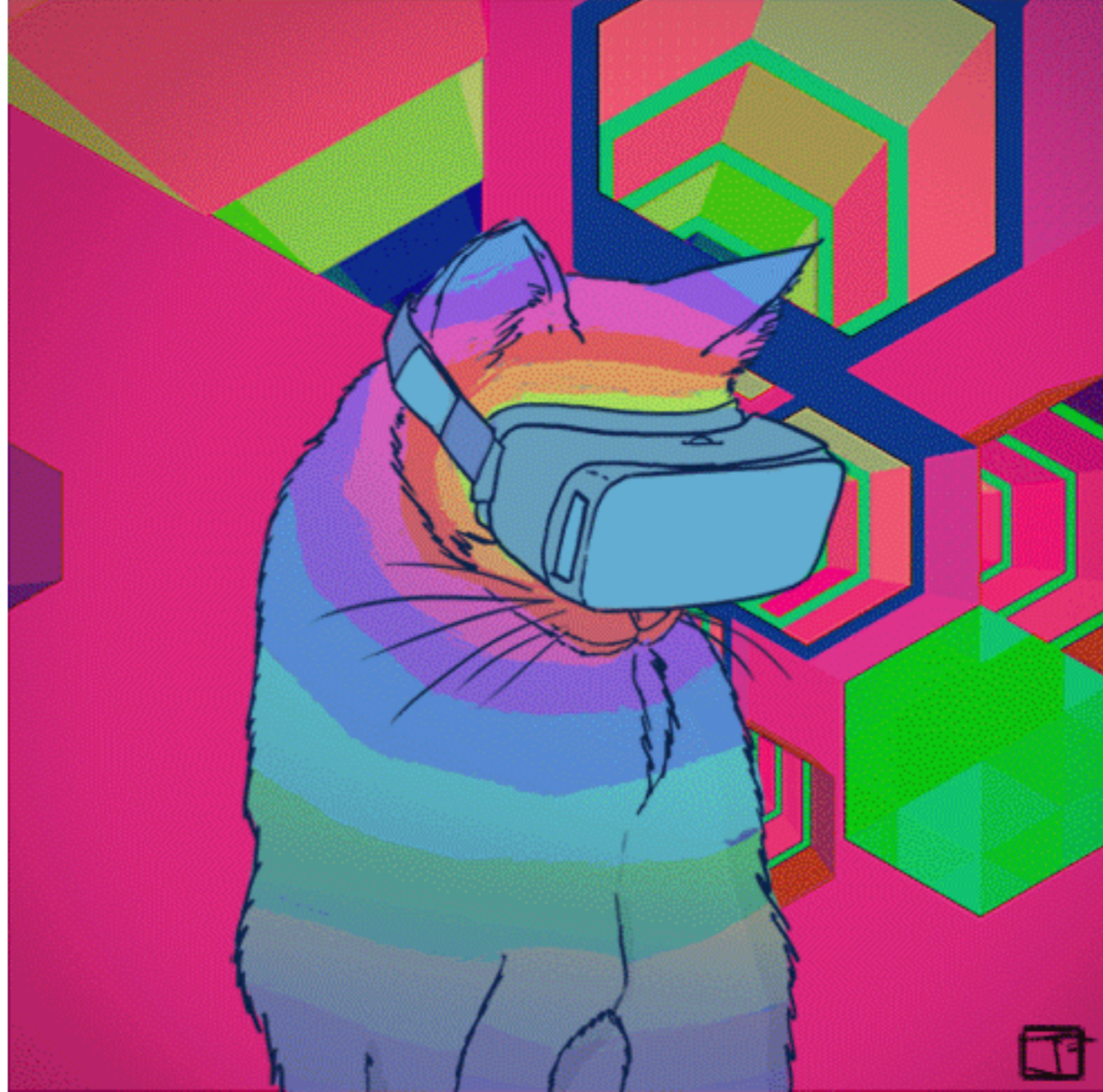# Immersive Design

Welcome

Laura Huisinga

Email: lhuisinga@CSUfresno.edu

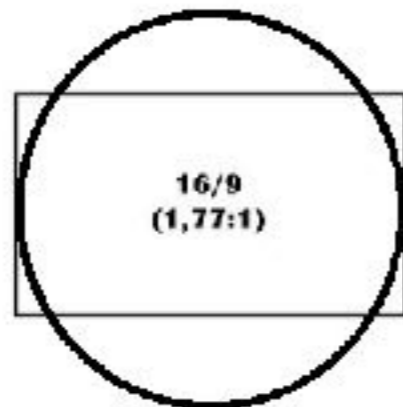Class website: laurahuisinga-design.com/GD159

Aspect Ratio

The proportion of the width of your viewing screen to its height is the aspect ratio. This can affect how the images from the VR world appear and whether or not they become distorted. It's all about the proper pixels for the ultimate view.

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(1,77:1)

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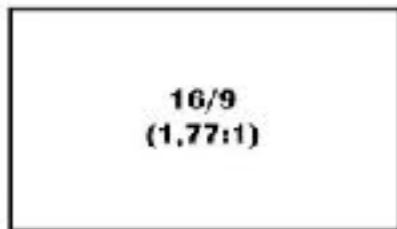
what aspect ratio the 2d video is

what sees is in the circle

whats not is unv is in the circle

from samsung gallery in gear vr 2015

Augmented Reality

Virtual reality creates a whole new and artificial environment, but augmented reality uses the existing environment the user is already in and overlays digital information in the form of a computer-generated image on top of it in real time. This provides a composite view.
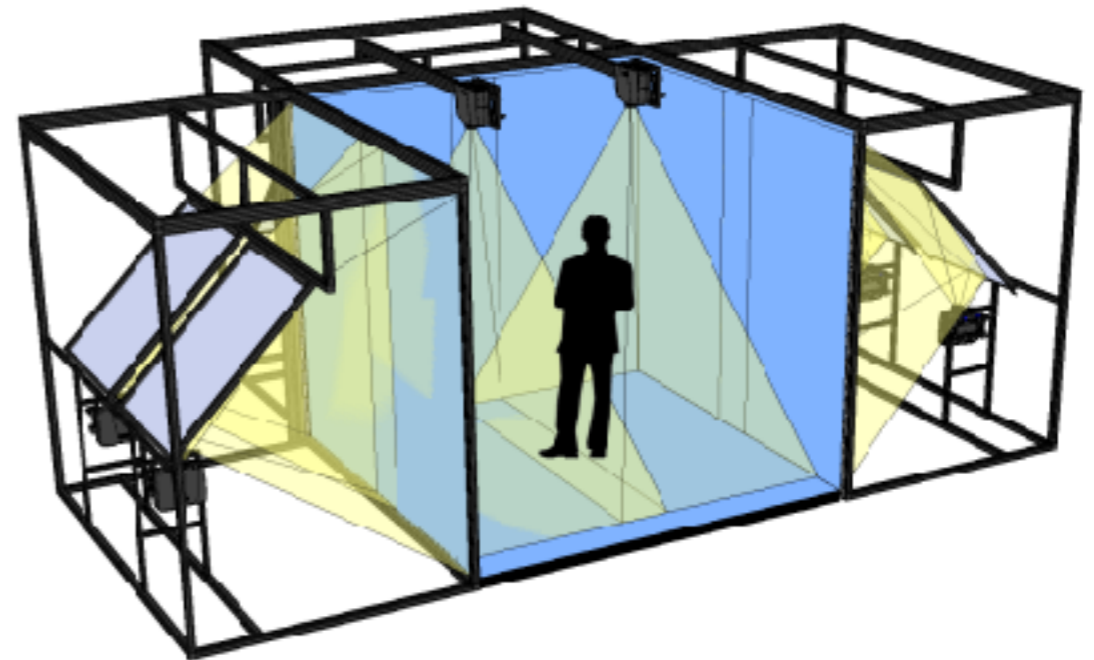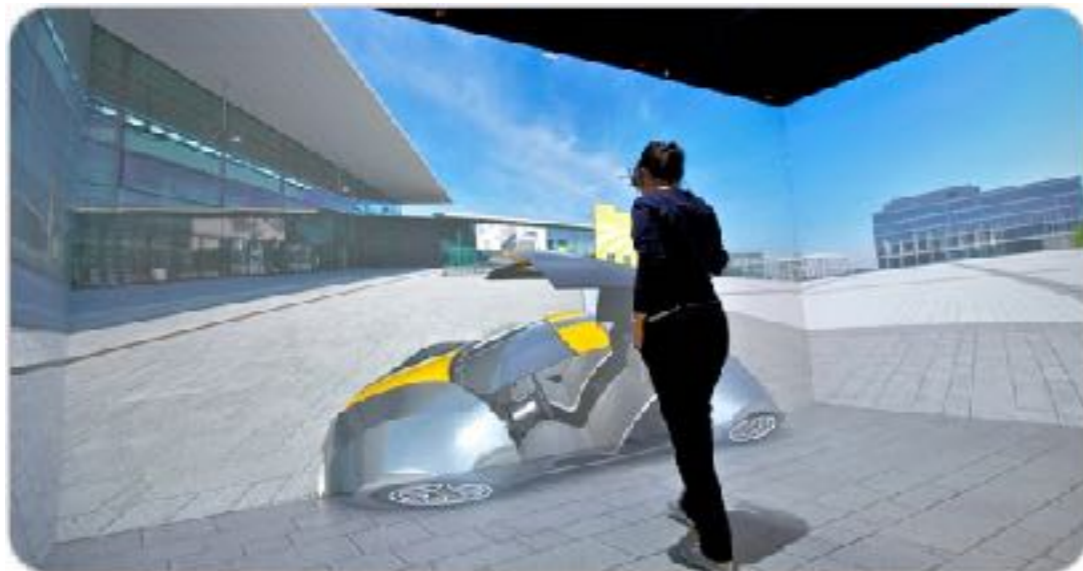
Avaddiction

Too much time devoted to the VR world can be addictive. Avaddiction happens when life in the avatar/VR world takes over one's actual reality. The first step is admitting the problem.

Cave

A cave is a virtual reality world projected onto the walls and the ceiling of the room of the user to give the illusion of total immersion.

Cinematic VR

This type of virtual reality utilizes real images from cameras rather than computer-generated graphics for a super-realistic VR experience for the user.

Data Glove

Also known as a 'wired glove', this glove is filled with delicate sensors that connect to your computer as you play VR games. The hand movements and gestures lead you through a VR environment.

Directional Sound

Oftentimes in VR games or movies, there's an overall background sound, but when the sound seems to come from a specific area, it's called directional sound.

Dollhouse View

A view from above allowing the user to see their entire artificial space to better make decisions regarding their next moves.

Eye Tracking

While your eyes are on the VR experience, the sensors in the HMD (Head Mounted Display) are carefully tracking eye positioning. If you're playing a VR game, the software will guide your view into a specific direction or use eye motions for other perks the game offers.

Field of View

Abbreviated as FOV, field of view is the number of degrees in the VR visual area. The more degrees in the field, the greater and more realistic the VR experience will be. Imagine only having a sliver of visual area in your everyday life—not too interesting. But a 180 or 360? Now that's something to see.
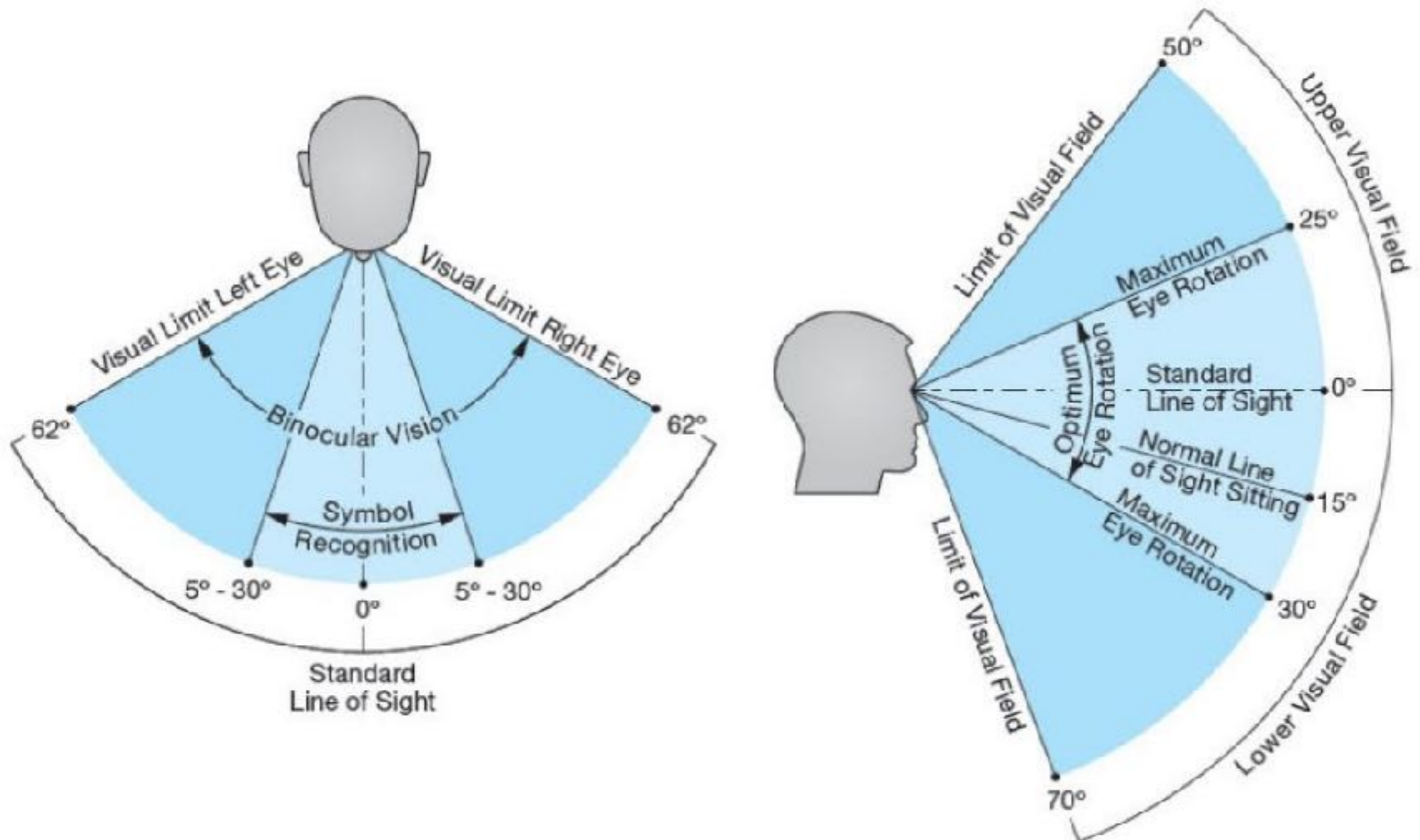
Haptics

You know that cool feeling in VR where it seems like you're actually reaching out and touching or feeling something in the scene? That's haptics. While what you see seems like it's at the tips of your fingertips, it's all an illusion.

Head Mounted Display

Head mounted display or HMD is a term you'll hear all over the VR world. In a nutshell, it's the hardware that gives the user his or her VR experience. You'll find HMDs in the form of a headpiece, helmet, glasses, or goggles. You will enjoy your VR experience through what you see in the HMD.

Head Tracking

Head tracking is akin to eye tracking, but uses the positioning of the entire head to help you look in any direction during your VR experience. It's just like looking around in the real world, but through the more advanced technology of VR.
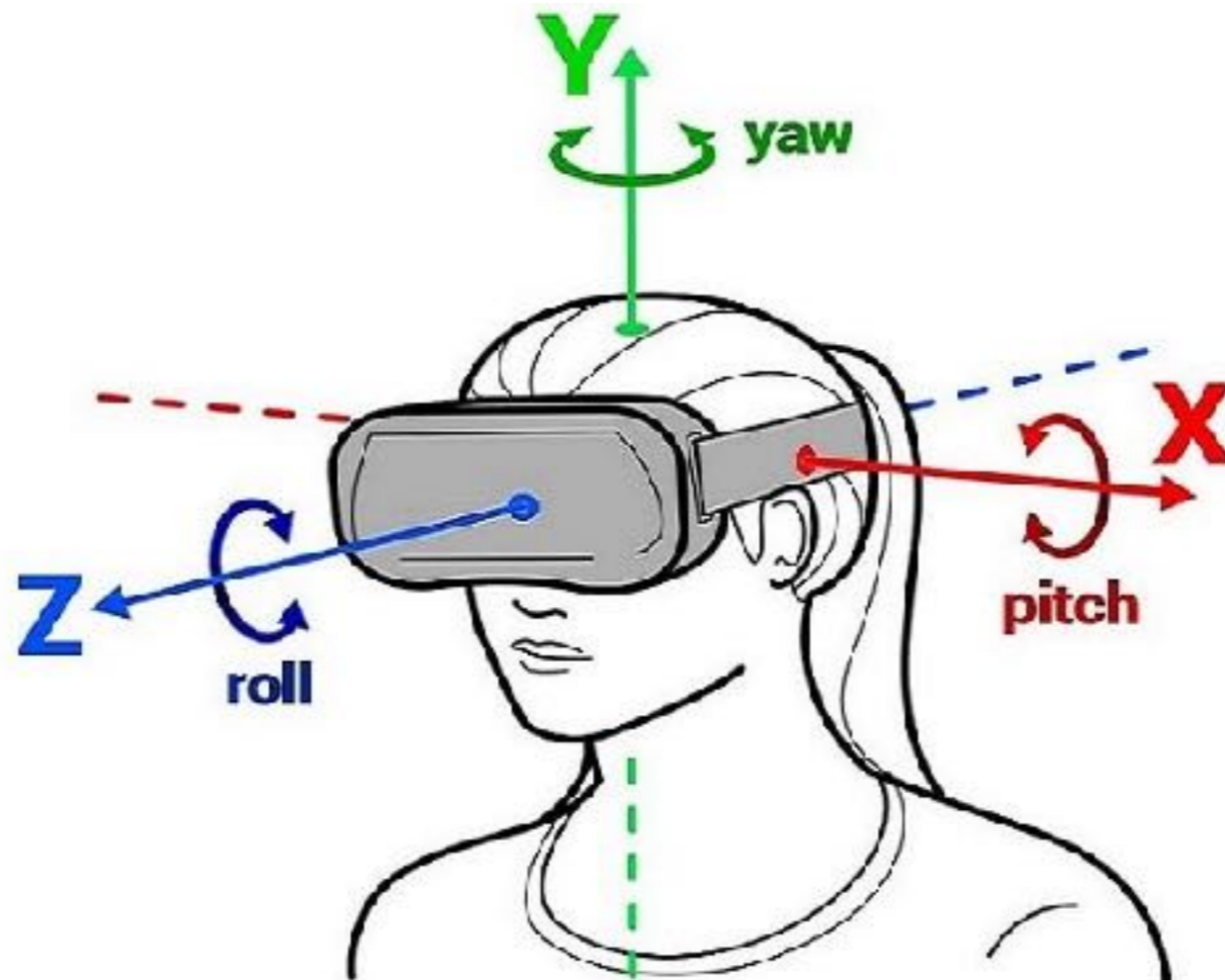
Homeworld

When you first enter a virtual world, there's a homepage of sorts called the homeworld. Here you can "meet" other players and introduce yourself virtually.
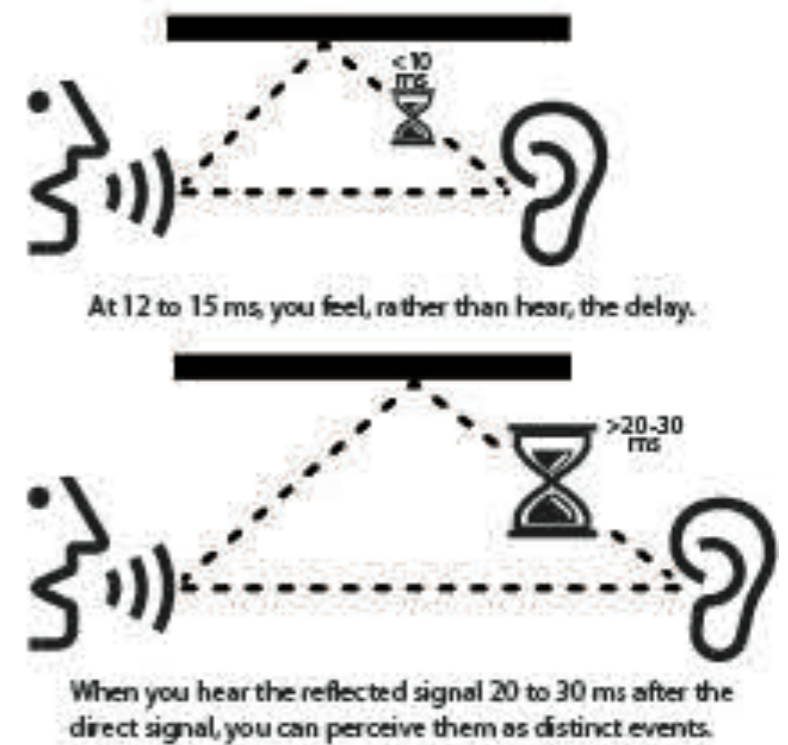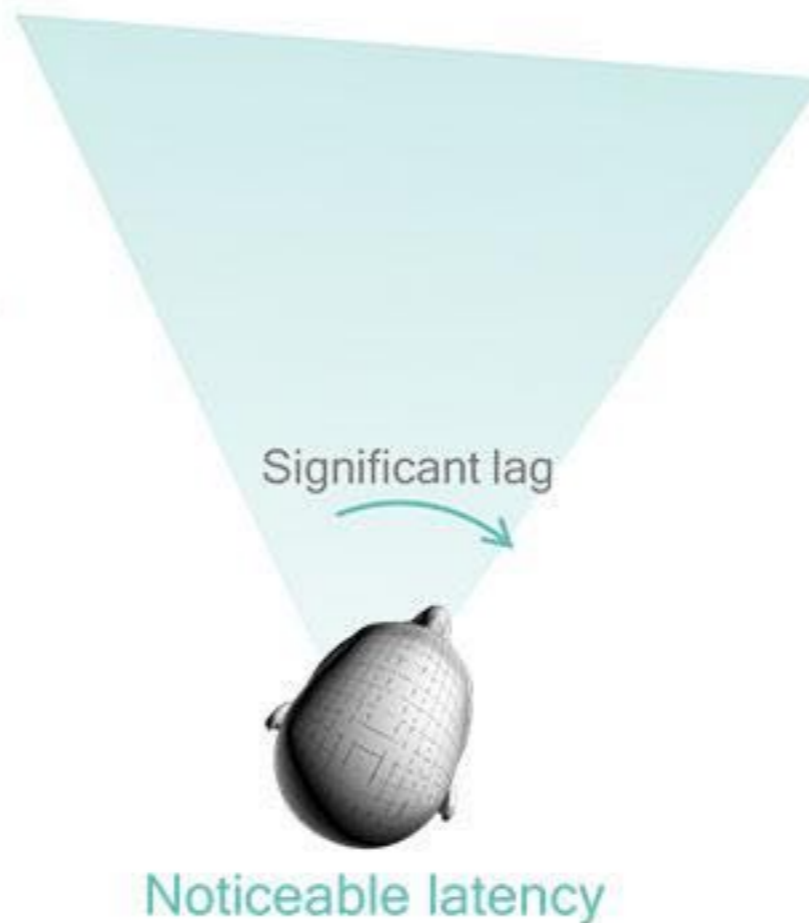
Image Distance

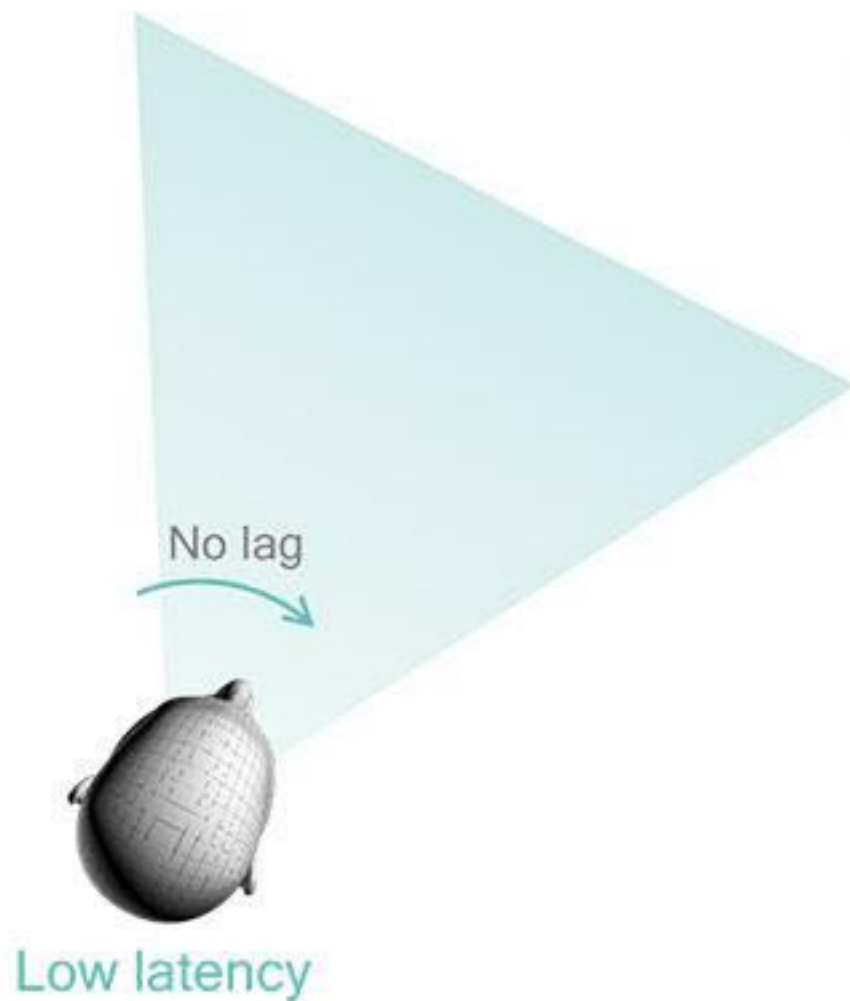The perceived distance the user is from a particular VR object they are viewing in the alternate world.

Immersion

Placing users in an artificial environment yet making them feel like they're right in with the action is considered immersion. VR creates this immersive playground where the sights, sounds, and perceived feelings surround the user with the perception that they are really there.

Latency

Latency is one bummer of VR. It's kind of like the VR is a step behind your head or eye movements. Ever watch TV and the lips are moving after you've heard what's been said? This lag is a glitch that will hopefully be eliminated as VR becomes more and more updated.

No lag

Low latency

Significant lag

Noticeable latency

At 12 to 15 ms, you feel, rather than hear, the delay.

When you hear the reflected signal 20 to 30 ms after the direct signal, you can perceive them as distinct events.

Locomotion

The movement of the user from one place to another in the VR world – the
mechanics to process their navigation.
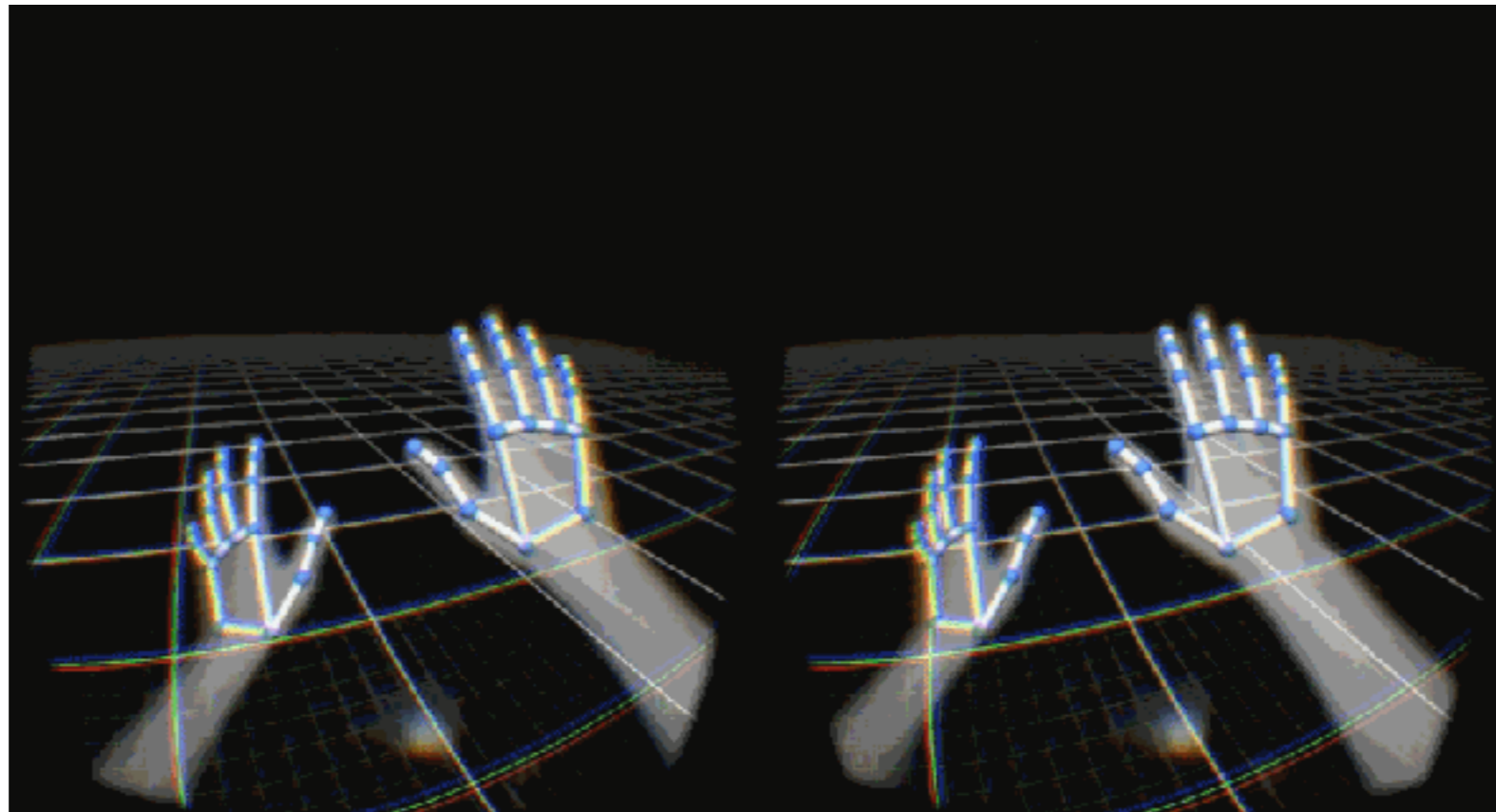
Mixed Reality

Mixed reality (MR), is also known as hybrid reality which is the merging of the real and virtual worlds to create completely new environments where the physical and digital objects interact and co-exist in real time.

Motion Platform

Stand on or in a motion platform to feel actual motion similar to what you're seeing in the VR world. You may look funny, but the experience is truly realistic. You may have seen one of these in a movie theater lobby.

Navatar

A navatar is like your personal tour guide through a new VR space. They can guide you through a game or virtual world explaining the ins and outs.

Presence

When it comes to VR lingo, 'presence' means that the aforementioned immersion is so on point that the user actually feels like they are literally in that world. When all the stimuli work together to create the ultimate user experience, presence is achieved.
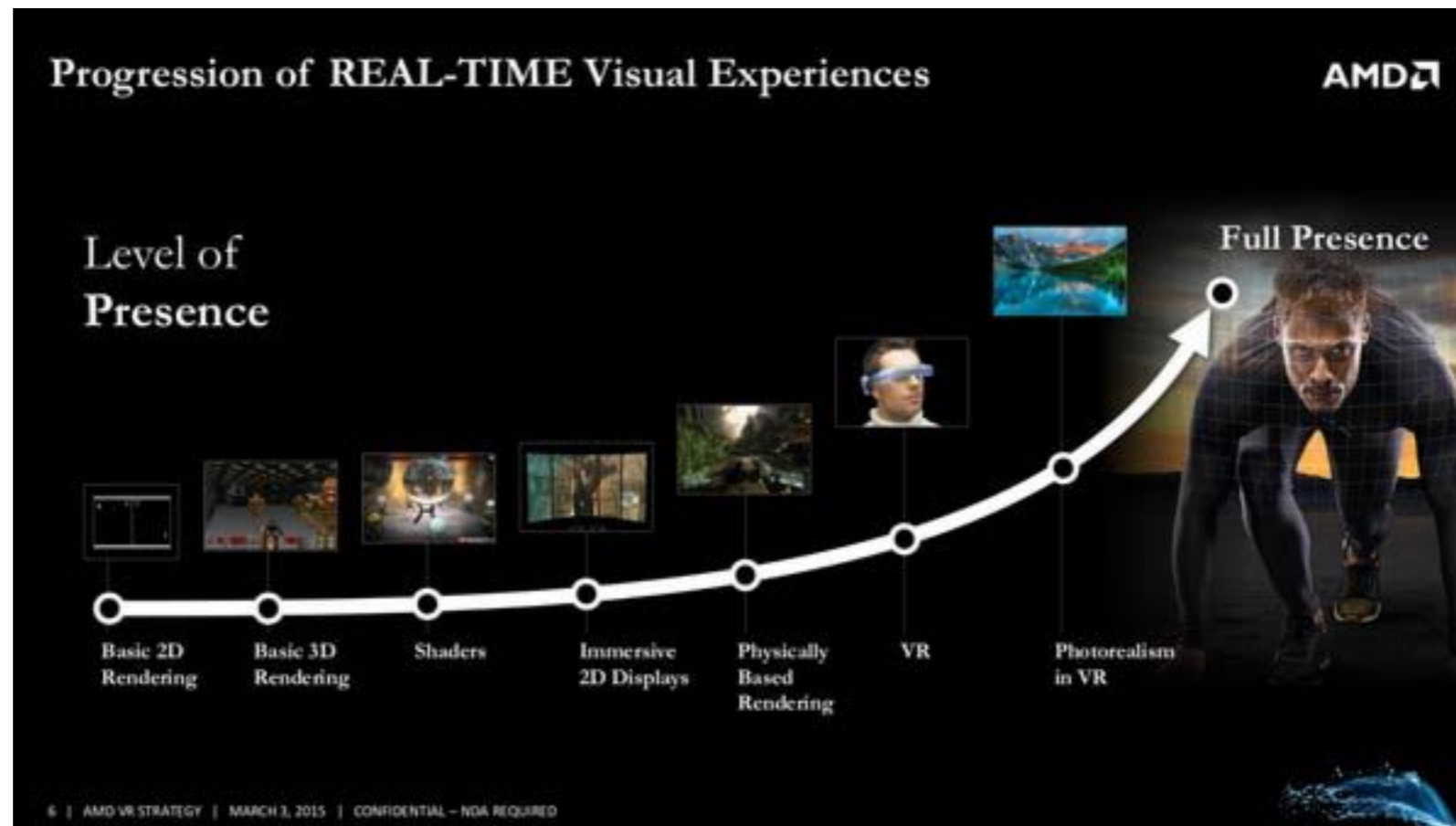
Real Life

Also known as RL, real life is just that—your actual persona in the world outside VR. Who you really are, what's your day job, your age, sex, etc. After all, you can't live in the VR space all the time.

Refresh Rate

The series of images and how quickly they get updated in VR is considered the refresh rate. 60+ frames per second is ideal for the best experience with little lag time between frames.

Simulator Sickness

Like a late night out drinking, sometimes VR can be too much fun, and produce a feeling of being ill. When the brain doesn't match up to what the eyes think they're taking in, people can get nauseated. The feeling of spinning, falling, and the like have been known to make users feel anything from woozy to ready to vomit.

Social VR

Why go it alone when you can interact with other players and users in your VR world? That's what social VR is all about—sharing the VR arena with others at the same time.

Stitching

Taking bits of footage from a number of different cameras, stitching combines and edits them together to create a continuous view rather than a patched-together framework.

Tethered Headset

A tethered VR headset requires a connection to a computer with a high processing power. This strong computing power is needed in order to provide the most life-like VR experiences for the user. Without them, the view will be more pixelated and graphics may lag.

Universe

In general, this term is well-known, but when it comes to the world of VR,
'universe' is the make-up of all the space and entities of the VR atmosphere.

360-Degree VR View

A 360-degree view is the simulation of an altered or augmented environment that surrounds the VR user, allowing them to look around in every direction as they'd be able to in real life.