

XR design (extended reality)

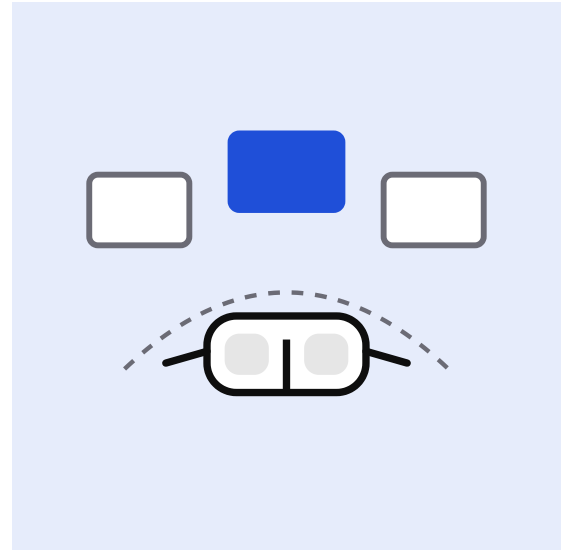
Designs virtual, augmented and mixed reality experiences, in which digital content surrounds the person or blends with the real place. It is not the spatial design of buildings.

In Spanish

Diseño XR (realidad extendida)

Origin

Milgram and Kishino (1994); Slater and Wilbur (1997)



What problem it addresses

Without the frame of a screen, everything around the person can be interface, and poor design is tiring or causes motion sickness.

Principles

Comfort first

What matters stays within the field of view, and motion is smooth and predictable.

Near and far

You can touch within arm's reach or point from a distance, with targets larger than on a screen.

Something that stays still

A fixed element in the scene, or being able to see the real place, helps people stay oriented.

Several ways to use it

Hands, gaze, voice, controller or keyboard, depending on the person and the device.

Applications in design

✓ Use it like this

Save XR for what is costly or risky to rehearse in reality, or for seeing something at full scale before building it.

✗ Avoid

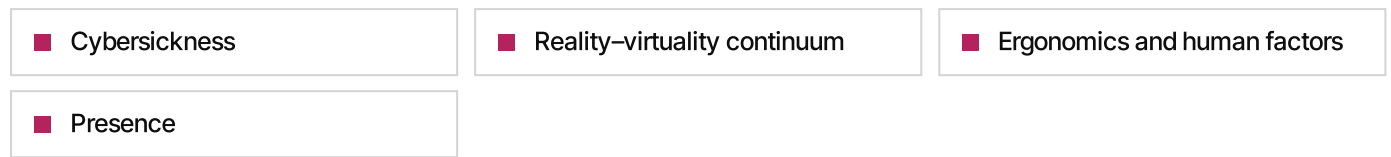
Accelerations, sudden stops or turns the person didn't cause: they make people sick.

👁 Don't fall for it

Test seated and standing, with people of different heights, and always offer a way to see the real place.

Connections

Builds on



Related to



Authors and works

1994	Paul Milgram and Fumio Kishino	Arranged displays that mix the real and the virtual along a continuum running from a fully real environment to a fully virtual one, with mixed reality in between (augmented reality and augmented virtuality).
1997	Mel Slater and Sylvia Wilbur	Separated immersion, what the technology offers, from presence: the feeling of being in that place.
2020	ISO	The ISO 9241-394 standard sets requirements to reduce visually induced motion sickness in content and displays, including virtual reality headsets.

Sources

Original sources

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- International Organization for Standardization (2020). ISO 9241-394:2020. Ergonomics of human-system interaction, Part 394: Ergonomic requirements for reducing undesirable biomedical effects of visually induced motion sickness during watching electronic images. ISO. [View source \(https://www.iso.org/standard/73227.html\)](https://www.iso.org/standard/73227.html)
- Google (2025). Design for XR immersive. In Android XR design guidelines. Android Developers. [View source \(https://developer.android.com/design/ui/xr/guides/get-started\)](https://developer.android.com/design/ui/xr/guides/get-started)

Last reviewed: October 25, 2026