

## **What applications of Virtual Reality are improving human endeavors by providing valuable experiences that are impossible without such technology?**

While some uses of Virtual Reality (VR) seem unnecessary because the real-life alternative remains a better experience, many applications of VR undoubtedly improve human endeavors by providing valuable experiences that are impossible without such technology.

Two industries that use VR in such a way are education and real estate. In education, an obvious value of using VR is the ability to allow students to conduct experiments that are in real life either too expensive or too dangerous. Therefore, VR helps strengthen students' level of understanding of subjects that would otherwise be taught only in textbooks. Moreover, VR allows students to visit locations that couldn't be visited otherwise, even bringing historical events to life. Is there a better way for students to discover dinosaurs than to see one alive in front of them?

Besides its use in education, VR is also popular in the real estate industry, where an obvious beneficial use is for visualizing property before construction is complete. Indeed, clients of real estate companies can experience being inside their future home before they are built, and experiment with potential changes.

VR is still valuable even for properties on which construction has already finished.

First, it allows owners to experiment with furniture, colors, and layouts. In real life, such changes can take days, while in VR, they only take seconds. Aside from the cost benefit, there is also the fact that without VR, clients may have difficulties remembering a previous choice that they saw days ago when they are comparing it to the current choice, which may have taken days to set up. Conversely, with VR, exploring different options for their property within seconds makes decision-making far easier.

Second, VR allows users to simulate different times of day to visualize shadows and sun exposure. In real life, clients would need to wait hours before being able to see how a house looks with different sun exposure during different moments of the day, and even longer to see differences between seasons. Using VR, those moments can be switched in seconds.

Third, VR allows simulations of perfect scenarios, where clients can experiment with scenarios that are very difficult to reproduce in real life. For instance, using spatial sound, clients can hear how it would sound like to have birds singing in the garden, or a fireplace in the living room. In real life, it is difficult to have birds singing in the garden when clients are visiting a house.

To conclude, in education and real estate, VR is used in ways that undoubtedly improve human endeavors, providing valuable experiences that are impossible without using such technology.