

# VIRTUAL REALITY AND AUGMENTED REALITY – SHOWCASING THE REAL IN REAL ESTATE

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## **VR and AR Background**

The reality of how we learn and do business is changing dramatically. Virtual reality and augmented reality, “VR” and “AR”, offer different synergistic modifications that improve day to day experiences ranging from cooking to brain surgery (literally), and they are about to impact the real estate industry in ways we have never seen before. The technology world (Microsoft, Dell, Sony, HTC, Facebook, and Apple to name a few) is already investing billions into research and product development. Now, with the product becoming more tangible, especially in the gaming world, real estate companies are jumping in as major investors in this soon to be 150 billion dollar industry. And yet, despite all of the aforementioned hoopla, many people are completely unaware to this emerging technology.

To put it plainly, augmented reality, or “AR”, is meant to enhance or augment a person’s current reality. It is a blend of what one is currently experiencing with additional information and graphics being incorporated in the setting. Virtual Reality, or “VR”, is intended to give a different reality entirely. VR is either computer generated graphics or photos of real images that make one believe they are experiencing something completely new.

Both forms require the user to wear glasses or goggles, but AR is similar to putting on a normal pair of glasses with “projection-like” holograms enhancing what is currently being seen, whereas VR blocks the user from seeing what is currently present. The impact this technology could have on the real estate market is limitless, as the following will explain.

## **VR and AR in Real Estate**

Most intriguing about VR and AR is the all-encompassing affect on the real estate industry (both residential and commercial), from negotiations, diligence, development, sales and leasing. Beginning at the due diligence stage, through VR investors and developers will have an opportunity to “be present” on site to tour a property from the comfort of a board room or a living room. AR can add real time information once they decide to be physically present at the property, giving on-site appraisals, sale statistics, tax assessments, and impact fee estimates at the swivel of one’s head.

Lenders will be able to utilize AR and VR in their underwriting process. For instance, like developers, a lender’s initial site visit can be accomplished via VR thus cutting down the time a lender takes to initially approve a project before it proceeds to further underwriting scrutiny. Once a lender decides to take an actual site visit, AR will allow those present to receive any required underwriting information. And for all the same reasons, AR and VR technology should decrease the time it takes for surveyors and appraisers to complete their tasks in helping the lenders conduct their underwriting. In short, VR and AR should allow lenders to more timely and efficiently underwrite loans.

On the development side, VR will allow site planners and government agencies to view parcels of land from within office meetings. Architects and engineers can mold and construct models of the project that can be seen in real time. Drawings and sketches will be three dimensional, allowing zoning boards and regulatory agencies

a better understanding of how the development will impact the neighborhood, giving engineers and governmental officials a better understanding of the project before construction begins. This technology may very well decrease the time governmental agencies take to process approvals.

AR will impact the actual construction of projects allowing all aspects of the construction trades to import real time information on site. This should significantly decrease construction cost and expense. For example, using AR an engineer can access on-site guidance, manuals, and real-time instructions by having graphics and holograms. Architects and engineers can be “on-site” if drawings need to be re-engineered to address real world issues. And construction workers can receive “on demand” instructions through their “construction goggles”. Developers will ultimately benefit from faster buildout periods thus resulting in decreased concern about missing their cycle or regulatory changes.

Brokers will also be able to utilize AR and VR in their sale and leasing efforts. Prospective commercial tenants can view the property without ever leaving their couch, seeing the property through VR as a broker guides them around from within their living rooms. Sales centers will no longer need models; VR will allow prospective buyers to see the development, the unit, the amenities, and every other aspect of the project as if they were there themselves. The entire sale and leasing transaction becomes simplified, more accessible, and more efficient.

The aforementioned innovation is why companies such as Lux Capital, the Altman Brothers and Trick 3D's Floorplan Revolution have become clients of real estate centric AR/VR companies. These companies, like Trick 3D's Floorplan Revolution, allow clients to navigate floor plans, change furniture, and provide a sense of scale with ruler measurements. Companies can even use VR and AR for advertising campaigns, customizing the presentation by giving the client the ability to change wall colors, furniture, lay outs and designs. This is merely the tip of the iceberg for where this technology is going to be utilized. Looking at the macroeconomic landscape, AR and VR should spur investment and business development because risk can be minimized at almost every stage of the transaction.

### **VR and AR Standalone Impact on Real Estate**

Even as a standalone business, VR and AR will impact real estate. In malls and shopping centers, VR and AR are already taking up retail space on its own for a multitude of purposes, such as gaming, office space, and entertainment. Although VR headsets can be portable and are functional from just about anywhere, the high-end, truly immersive experiences require space to walk around and computer power that would make an Xbox seem like a graphing calculator. In certain parts of the world, such as Australia, VR arcades have already become quite popular, with most divided VR rooms being roughly 225 square feet and most full playing spaces being approximately 2,000 square feet. As demand increases, there will be a need for more retail spaces similar to arcades but with soft walls, a spotter, advanced computer power, and room to move about. And if arcades don't take up enough real estate, some VR companies are contemplating theme parks.

VR and AR are here, and they are going to have a major impact on the way we conduct business, especially real estate. The trend that once was an idea for the future is no longer just a gaming gimmick, it is now a reality.

For more information on this topic, please contact [Barry Lapides](#) on the firm's [Business, Finance and Tax Team](#).

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