



SEEING IS BELIEVING IN THE VIRTUAL WORLD

Savvy builders and forward-thinking property gurus are using the magic of immersive media to realise maximum sales potential, NICOLE BITTAR reports

THE virtual experience is all around us, but its unreal status, coupled with perceived claims on actuality, poses many questions.

For starters, will it ever surpass expectations of reality?

How intrinsic is the immersive, three-dimensional realm as an enticement or inducement for purchasing a new home?

As a marketing tool for property developers in collusion with technology companies, is it anticipated or necessary?

And how on earth can these companies keep pace with the lightning-speed of technological change?

Blazing a trail on the world stage in virtual and real-time architectural visualisation is London firm VRTisan.

Director Ekke Piirisild says VRTisan is the product of passions between design, technology and construction. A combined excitement in the development of virtual reality (VR) technology and recognition of its potential and benefits for designers, architects and property developers was the catalyst for the company's formation in 2014.

"Years of accumulated interest in the technology prompted the establishment of VRTisan, which happened alongside the first releases of the technology. Our goal is to introduce exciting new visualisation opportunities and push the boundaries of VR in the AEC (architectural, engineering and construction) industries," Piirisild said.

Piirisild adds that virtual reality is at the cutting edge of software and hardware development and believes anyone creating VR content can be seen as a pioneer. VRTisan is focused on developing high-quality photorealistic VR experiences.

"We create real-time rendered interactive scenes to showcase architectural projects before they're built," Piirisild said. The workflow incorporates optimised modelling, lighting and texturing to create the virtual-reality scenes.

"We seek to offer the best balance between the high hardware requirements of the virtual-reality platform and the level of detail in the scene to create high-quality, virtual-reality solutions for our clients," Piirisild said.

VRTisan specialises in the architectural schemes of residential developers (often apartment complexes) with compelling computer-generated imagery and applications. Its rendered, real-time 3D

virtual-reality apps, walk-throughs, fly-throughs, animations and images help bring new places and spaces to life via effectively communicating the design.

So how close to reality is the virtual experience provided by VRTisan? Space, scale and materiality of the project are expressed in a way that is incomparable with any other presentation medium. The spaces, interior arrangements and lighting, which form the core of the architectural proposal, are near-perfect representations of the future building, says Piirisild.

"Interior details are flexible, therefore the materiality, furniture, fixtures and fittings are often subject to change. Our virtual-reality environments can be created to either showcase a fixed design proposal or to be used as a design tool to test out different interior configurations and options for finishes," Piirisild adds.

All this, of course, with winning results.

"We have had very positive feedback from the VR experiences we have created to date, especially relating to the visual quality and the level of interaction within the scene," Piirisild said.

"The technology allows users to literally step into a live 1:1 model of the proposed building and be fully immersed in the experience, losing sense of the physical world around and feeling present in the virtual environment."

Piirisild hastens to add, however, that not all visualised projects get built and the proposals can change drastically during the design process.

But regardless, the skillset is in place to take the virtual-reality experience well into the future.

VRTisan employs its architectural design experience to understand the client's aspirations for a space and to aid in the development of a project's earliest concept stages, to visualising the final design in its full glory.

Their skills in modelling and software development allow for the creation of high-quality photorealistic scenes that meet the project requirements and exact needs of clients, as well as offering engaging ways to interact with the design.

"We welcome the technological developments of VR as each iteration of the headsets, controllers and programming tools brings us closer to creating more immersive and engaging content for our clients," Piirisild said. "Our goal is to deliver the most



convincing and photorealistic-visualisation experiences possible and each new technology brings us closer to this goal."

Closer to home, Metricon is leading the charge in the virtual experience made real.

Its national marketing services manager, Kelly Millar, says that Metricon has always been a leader within its industry, and as such is open to embracing and adopting new

technologies. She cites the Metricon Virtual Display Experience, which "virtually" brings the traditional display-home experience directly to the customer, as a first in this country.

"The virtual-reality technology is so advanced that it allows us to offer our customers the next best thing to actually standing in a display home," Millar said.

"We understand that not everyone has access to our full range of display homes within easy travelling distance or indeed has a display home in the design they like.

"This technology allows us to overcome these basic challenges. If our clients can't come to a Metricon display home, then we will bring the home to them."

Millar adds that Metricon has been using virtual reality in its regional offices, Greenfields market at sales events, with the head office sales team and for international customers for close to a year.

"We pioneered the first virtual-reality display homes for the

detached-house builders' industry in Australia," Millar said.

When asked if clients consider the service an imperative part of new-home buying and if they perceive the VR experience as the future of built architecture, Millar's response was resounding: "Virtual-reality is still a novelty, because there isn't anything like it that is readily available from detached-home builders, but it is certainly the future for Metricon," she said.

"It's a practical and effective way for us to bring our home designs directly to the people who can't easily come to us."

Suffice to say, clients have been suitably impressed with the overall experience. Not only because, for most, it's their introduction to virtual reality, but by the realism of the homes' appearance.

"You can see so much of the interior detail and you get a true sense of the room size, the floor plan and the sense of space and flow. You can't get that through any other technology," Millar said.

"Our clients are blown away by how clear the detail is and how they get a real sense of the size of rooms.

"It's the next best thing to standing in the real home."

To put it mildly, customer feedback has been overwhelmingly encouraging.

"The most frequent comment we have had from anyone who has tried it is that it feels just like standing in an actual display home, and that is where the difference lies," she said.

"It's a truly immersive experience, and the next best thing to visiting a display home."

Several Australian real estate agents are putting the virtual-reality technology to their marketing advantage. These include Sydney's Laing + Simmons, which has teamed with virtual-reality group Start VR to market the Edge 28 apartment development at St Leonards.

In Adelaide, Ouwens Casserly Real Estate last year enlisted the services of 3D tour company TicketyView, via the aid of Samsung virtual-reality headsets, to market its extensive property base. Director Alexander Ouwens believes the move is a win-win for the agency and clients alike.

"People are flooded with properties and, in theory, if every property had this technology, buyers could assess a bunch of properties from their own home," Ouwens said.





OPPOSITE PAGE:

The attention to detail in this rendered living room became reality in a London apartment
Image: VMI STUDIO

THIS PAGE: Art imitating life, this dining space at Metricon's 'Somerset 59' at Glen Waverley was originally constructed in virtual reality.
Image: METRICON

This goes to show that the virtual-reality phenomenon has stepped out of the lounge room and into the home buying stratosphere.

You can't escape the 3D gaming phenomenon, even in our own homes, and there are virtual bars and other entertainment zones cropping up like wildfire. But where does this leave the participant and their taste for the hyper

It's a practical and effective way for us to bring our home designs directly to the people who can't easily come to us

real and what about commodity-based results for the technology provider?

With a business ethos firmly rooted on solid ground yet with a collective 'castles in the sky' mentality, are Melbourne-based, immersive-technology companies Phoria and Liminal 360.

When it comes to immersive media,

Phoria is considered a pioneer. Co-founder and chief executive officer Trent Clews-de Castella says that early in 2014, within its first three months of operations, Phoria had built a fully functional virtual-reality, mobile application. This creation, called Step Inside, was revolutionary in its ability to rapidly turn any three-dimensional scans into a compelling virtual experience.

Clews-de Castella says even though this was only 24 months ago, virtual reality has come a long way in such a short timeframe. Fortunately, Phoria has been riding this wave of dramatic technological changes taking place.

"We recruited some crafty game developers, started building software

and, before we knew it, our content was front and centre on Australia's leading property portals and real estate websites," Clews-de Castella said.

Phoria launched what Clews-de Castella believes is the world's first interactive, off-the-plan experience, directly from a property portal. This was unique in its ability to run in a browser, which means that anyone with a computer or smartphone could access an interactive 3D walk-through without having to install any plug-ins or applications.

In fact, Metricon is one of the company's founding clients.

Clews-de Castella says they took this further with augmented and mixed-reality development using novel spatial sensors that tracked your movement in real time. He explains it this way: "Imagine walking into a showroom, being given an iPad and the ability to select the apartment type, colour scheme and floor number. From there, a unique interactive creation loads within your space, giving you the ability to navigate freely throughout the showroom as your movements are tracked on the iPad, showing

which room you are standing in, the 360-degree view and the ability to learn more about the apartment by simply tapping on individual features or toggling surrounding dawn and dusk views".

Literally, within the zone yet out of this world are the possibilities. But such sweeping virtual-reality horizons are still tethered to existing practices.

Competitors of such an advanced calibre are few, Clews-de Castella suggests. But the Phoria team views its true threat in traditional media providers. "It is the old, flat, two-dimensional content that we strive to replace, which we feel is holding us back," he said. "Sure, a picture can say a thousand words, but when you have the ability to move freely through the image, to experience it in virtual reality, it is no longer an aesthetic experience; it is, instead, a deeply engaging and personal one."

The proof is in client uptake levels, which display a ravenous appetite for VR marketing capabilities. Clews-de Castella says Phoria has visualised more than 1000 unique spaces across Australia for builders, estate agents and events and entertainment venues.

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THIS PAGE (from top): VRTisan can add elements to any room, such as this kitchen and informal living domain; the easy-to-use design suite built for HTC Vive allows changes to be made quickly within a Liminal 360 design; an apartment's lounge room created on a Liminal 360 mobile app

"When we look at the analytics, we have measured more than four times the level of engagement over video," he said. "This demonstrates that when you give users more control of what they see and how they choose to see it, the level of interest and engagement naturally increases."

Liminal 360 is another dedicated VR company, which was established about two years ago. Specialising in VR experiences for off-the-plan property developments, Liminal 360 has delivered projects for Melbourne and Sydney developers and recently constructed a virtual-reality recreation of the Coop's Shot Tower for Melbourne Central.

The company's chief executive officer, Damian Moratti, is justifiably proud of the Coop's Shot Tower recreation.

"Our team used HTC Vive (a room-scale, virtual-reality, head-mounted display being developed in co-production between HTC and Valve Corporation) to reconstruct the Shot Tower as it was in the 1890s by re-enacting life as a worker making shotgun pellets at the top of the tower," Moratti said.

On the residential front, Liminal 360 created the One Coburg Quarter project for Melbourne property development company Future Estate.

"This was a breakthrough project in terms of the use of virtual reality for property marketing in Australia," he said. "It was particularly satisfying being at the red-carpet launch at Pentridge Prison: a sea of red Google cardboard were simultaneously being used by people attending the event."

But with the lightning-speed technological advances, there is no time to rest on Liminal 360's laurels. Moratti believes local competition in the VR world is heating up.

"Matterport are leading the way in developing VR tours of established properties and YouVisit are leaders in 360-degree photography and video," he asserted.

Leading California-based immersive media company Matterport entered the Australian real estate market this year. It provides an end-to-end system for creating, modifying and distributing three-dimensional and VR real-world spaces on web and mobile devices.

Tens of thousands of agents have used Matterport to attract clients and market more listings, with visitation of more than 40 million views of Matterport 3D Spaces worldwide as reported in May.

New York-based virtual-reality visionary YouVisit, which started in 2009, is at the forefront of specialised Oculus technology in 360-degree camera tours. Servicing every industry from education to hospitality, its real estate clients include Colliers International, Stuyvesant Town-Peter Cooper Village and Douglas Elliman Real Estate.

With a collective background in architecture, physics and programming, and as another adopter of advanced Oculus technology, New York company IrisVR is an architectural-visualisation specialist.

Head of operations Justine Caguiat says VR as a technology, while still in its infancy, is being widely used in some of the world's largest architectural offices.

"We're proud to be the first company to offer software that empowers architects to quickly and easily convert their own 3D models into navigable VR experiences. These experiences are a great way for architects' clients to understand their designs and walk through a building before it is built," Caguiat said.

Clients include Architizer (a marketplace that connects architects with building products), Houzz (a visual community for home renovation and design) and Chaos Group (a collaborative think-tank that explores advances in rendering technology), to name a few.

With decades of experience in architectural practices and software development, and an active investment in education and user interface, IrisVR is well placed to ride the wave of technological change in the virtual-realisation sphere.

But Liminal 360 has its own impressive arsenal.

"We have a very well-rounded and experienced team, comprising alumni from major production studios such as Pixar and Animal Logic," Moratti said. "We also have experience in software development, design, user experience and animation, and we cater for all VR platforms."

In addition, Liminal 360 has a strong business-development team that is committed to ensuring that all products and services achieve optimum return of investment for clientele.

Moratti's aspirations for Liminal 360 are impressive and, one gets the impression, infinitely achievable. Simply put, he says: "We aim to provide the best VR sales channel for off-the-plan properties".

DREAM

BIG



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ABOVE: The effect created by VRtisan is stunningly similar to reality

The company has created an Asian executive mobile VR platform, which is front and centre to its future strategy. The platform will initially showcase off-the-plan properties in VR and will be available in English and Chinese languages. And with technology comes renewed scope.

"We are constantly keeping a close watch on emerging trends in the tech space and are constantly working on ways to implement these opportunities in pragmatic ways to increase the return of investment for our clients," Moratti said.

Computer-generated imagery specialist VMI Studio, which made headlines recently by helping London real estate agent Higgins Homes sell upmarket apartments in Stoke Newington, north London.

This was no mean feat considering the \$1 million-plus, two-bedroom apartments were yet to be built.

With offices in London and Melbourne, VMI Studio prides itself on producing world-leading CGI exteriors, interiors, architectural visualisations, photo montages, verified views, animations, virtual experiences and multimedia apps for the property sector;

from planning stages to final marketing collateral, says director James Byrne.

"My personal belief is that virtual reality will help developers and buyers shorten the sales cycle and reach a wider audience nationally and internationally," he said.

"It also helps architects and builders reduce their time to market by being able to make changes as they go through the project, while keeping everyone automatically up to date, in the loop and working collaboratively in real time.

"Virtual reality is also enabling home buyers to visualise their home and make interior design choices long before the foundations are even laid."

Byrne also believes the opportunities for the rapidly evolving technology are endless and provide an end-to-end solution, from the conceptual and architectural stage, through to interior-design capability for the home owner.

As such the consensus on future of VR remaining an effective marketing strategy and method of mingling business with pleasure is overwhelmingly positive.

Piirisild at VRtisan welcomes the technological developments of virtual reality, as each iteration of headsets,

controllers and programming tools forges more immersive and engaging content for clients.

He says VRtisan's goal is to deliver the most convincing and photorealistic-visualisation experiences possible, and each technological advance brings them closer to this goal.

"The industry has changed rapidly in the last 20 years – 3D modelling and co-ordination have replaced working behind drawing boards. Both the design and construction of buildings is becoming increasingly complex," Piirisild said.

"Virtual-reality and augmented-reality solutions will play an (increasingly) important role in communicating, co-ordinating and designing buildings and structures."

Millar says Metricon's future aim is to offer the technology Australia wide, with the focus remaining clearly and simply on customer satisfaction.

"Virtual reality is a great start to the home purchase journey – you will definitely know whether you love a design or not and what features you like – but we know our customers still like their final experience to be bricks and mortar if possible," Millar said.

BIG VISION

"Some people identify the birth of virtual reality in rudimentary Victorian 'stereoscopes', the first 3D picture viewers. Others might point to any sort of out-of-body experience. But to most, VR as we know it was created by a handful of pioneers in the 1950s and 1960s. In 1962, after years of work, filmmaker Mort Heilig patented what might be the first true VR system: the Sensorama, an arcade-style cabinet with a 3D display, vibrating seat, and scent producer. Heilig imagined it as one in a line of products for the "cinema of the future," but that future failed to materialise in his lifetime."

– Adi Robertson and Michael Zelenko in *Voices From A Virtual Past* in *The Verge*