

# Virtually There. Or, There Virtually?

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You place the HMD over your head and are immediately immersed in a serene - if slightly disturbing and surreal - landscape. In a boat. Under water. Above water. Floating with fish. Creatures and plants surround you, joining on this journey. Your boat passes an island. A dog steps in and sits at the bow. The dog is your companion, your friend, guiding you to your destiny. The connection with the dog is palpable, she is there as a friend. The dog glances back from time to time, and you connect - it is an incredibly emotional experience. You are in *Transition*, a VR experience created and produced by Dutch students Mike von Rotz & Joost Jordens and set to music by Dutch composers Reimer Eising and Lennard van der Last, AKA Kettel & Secede. *Transition* is a metaphor for death - of passing from one world to the next - and Virtual Reality (VR) is its format that makes your experience exquisitely possible.

Whether you knew content like this existed or not, you might not have been convinced by the world-opening and mind-shifting possibilities of VR. "Reality" is being bent in ways foreseen in science-fiction or warned about in socio-political editorials, constantly challenging us to question our own status and understanding of what is going on within virtual extensions of our everyday. However, the possibilities presented within Virtual Reality are neither so far in the future nor farther than the tips of our fingers. With varied perceptions of success in virtual realms – from finely tuned "you are there" executions requiring computing power and digital arrays that strain power grids, to clunky yet effectively serviceable environments on our mobile devices – we are left pondering where we are virtually and if we haven't achieved a reasonable level of "virtuality" already.

Virtual, Augmented and Mixed Reality worlds (V/A/XR) are in motion with numerous developers and driving billions in investment, but progress feels slow amongst the largest media generators - with content seemingly patchy and niche. So, what are we looking for and when will we finally realize full success?

Interestingly, Virtual Reality comes down to perspective and translation. It was Aristotle (Born 384 BCE) who discovered the earth was round, but even after a couple thousand years, theorists would like to counter logic by surmising that the world is indeed flat. In the same vein, it wasn't until 1965 when American computer scientist, Ivan Sutherland, described an all-senses 'round' digital world:

*"The ultimate display would, of course, be a room within which the computer can control the existence of matter. A chair displayed in such a room would be good enough to sit in. Handcuffs displayed in such a room would be confining, and a bullet displayed in such a room would be fatal. With appropriate programming such a display could literally be the Wonderland into which Alice walked."*

We are some way from Sutherland's vision, but we have thankfully moved on from his 'Sword Of Damocles' VR headset that was so heavy, it required suspension from the ceiling. Sutherland was describing a room, and while it was incredible, in terms of space, it was just a room. When will the world be available to be explored; will it be one world or many, and will you be in it? Many experts

in the VR space argue that we are still living on the wrong side of a flat screen; we will have to, at some point, enter the virtual world and make ourselves a home, or be notable by our absence. Others counter we might be missing what is directly in front of us – flat screens are not merely 2D representations of reality, but actual portals into virtual connections with other places and people in meaningful ways that could have previously only been dreamt of or seen in a movie.



**Transition - Mike von Rotz & Joost Jordens 2018**

Ultimately, we will need to understand where business is done, where we will relax and play, and conceptually how we leave and re-enter both virtual and real worlds. If we consider the Internet as the flat digital world with the World-Wide-Web as the main area for commerce, we will need to locate the equivalent in the virtual world and ensure we are present in the right areas and applying the right level of effort, R&D, and investment.

One concept of a three-dimensional experiential world seen through glasses was mentioned in Stanley Weinbaum's science fiction story 'Pygmalion's Spectacles'. For some, it is considered to be the origin of the concept of virtual reality. The American science-fiction writer, born in 1902, describes a virtual world that stimulates the main character's senses using special glasses through which holographic scenes are displayed. The vision and desire has been with us for a long time. What is our reality now? What work has been done to digitize the world, what worlds and experiences currently exist?

The process of digitally visualising our world is happening in nano, gigantic, and every scale in between. When the thousands of digital entities converge, combine, morph or kill each other it is analogous of the development and history of our real world; the formation of countries, wars, community-building and so on. It is very difficult to say where we are currently and even tougher to know who will be building the virtual worlds of the future.

There are new technologies including; improved tracking, faster processors, holography, haptic, and improved HMDs (Head Mounted Displays) and wearables taking shape. The industry itself is also increasingly optimistic, but there are still huge hurdles to clear. Issues such as cost, lack of content, comfort, and motion sickness are keeping the consumer market very much flat, with statistics showing most vendors believing consumer adoption is still at least three to four years away (Source: VRX 2019).

But many platforms and technologies have been enabling entry into "virtual" for years and have only required us to connect the dots. For instance, satellites have been revolving around the planet since 1957 collecting data. Many organisations utilize the collected data to map the world and have created consumer applications; with Google Earth being just one example – where they are at the beginning of making this into a more immersive experience with Street View. This is one of the biggest ways in which the planet will become digitally rendered.

If we recognize virtual as an iterative realization, we can embrace that - in numerous ways - we are already “there” virtually. While video conferencing used to be futuristic and quite expensive, free online platforms like Zoom allow us to join forums of one hundred people or more – all sharing ideas face-to-face and in the same “room” – requiring no more than the infrastructure costs of a device and a connection.

Yet, we currently hold the standards for ultimate VR incredibly high, and the versions of those VR experiences are considerably smaller and controlled by private sector organisations such as Facebook/Oculus VR, Google, Microsoft HoloLens, Magic Leap, HTC Vive, Unity Technology and a good number of well-funded start-ups. The current (2019) worldwide VR consumer market value of both hardware and software is \$6.2 billion growing to \$16.3 billion in 2022 (Source: SUPERDATA – A Nielsen Company), certainly a very healthy and promising increase.

Many of the 171M VR users worldwide (Source: TechJury.net 2019) explore the top 10 Virtual Reality worlds including Second Life, Active, Blue Mars, Empire of Sports, NeoPets, FreeRealms and Gaia Online (Source: Virtual Reality Society). Yet, with current reach to only 3.95% of the world’s 4.33 billion Internet users (Source: Statista 2019) the demand will grow for better immersive experiences, and the requirement for fortified revenue streams and clear commercial presence will become overwhelming.

Expanding adoption and establishing business models lead to the real challenge in virtual reality. While it is easy to discuss the market share and technology propositions when considering the future of VR, we’re missing the point if those are the only considerations. The point is, *why* people care in the first place. We can all point to a forthcoming “cool factor,” but the delivery of visceral experiences is needed in order to find real success at any level.

When forging a visceral connection, we aim to latch into the intuition because it requires more than mere intelligence. Just the defining of visceral is a bit of a challenge, so we’ll share a simple example to better illustrate...

Remember when a friend shared pictures of their travels to a place you’ve never been? You felt compelled to “ooh” and “ahh” over its beauty, subject matter, whatever. But there was still separation from the space being shown - you were just an observer. What if you were to be shown an image from a place you’ve actually been? Immediately, you’ve got much more information to process from your own relationship to the space. You find a pull on your gut or intuition through these visceral hooks. If you haven’t been everywhere or done everything, then how can this visceral connection happen?

It doesn’t matter whether the experience is fully immersive 3D with huge technological support, or relative 2D utilizing simpler “lo-fi” resources - the lack of a visceral element renders the VR as underwhelming and ineffective. In fact, a viewer can experience deeper connections even through a platform as simple as Google Maps when exploring satellite or street view of places they’ve been – their experience immediately connects to more senses, and they’re clearly aligned.

This summer provided an example of how a full VR kit is not required to experience a breathtakingly visceral experience through a unique event, recorded in Wired magazine’s article ‘Fortnite’s Marshmello Concert Is the Future of the Metaverse’ (May 2019). This event was a game-changer and came with a communal virtual reality component. Marshmello, the internationally famous DJ, aka Christopher Comstock, played a 10-minute set to 10 million online Fortnite players. Fortnite is an extremely popular video game providing more than 200 million registered players worldwide

(Source: Epic Games) to fight their own battles and choose their own destinies within the confines of a fully built virtual space. The concert happened inside the game; players could direct their virtual avatars to the concert space at the specified time to enjoy the concert collectively amidst the other video game players. While not the first event the game creators had hosted, it reached a scale not yet seen before and introduced smart technical solutions that provided a strong glimpse of the future of virtual reality being used by people to meet and share or be 'present' at an event. With Fortnite's next-step development, the strongest takeaway by the participants was the feeling of being there and experiencing something communally. When the game creators changed the physics of gravity within the game at a precise moment in the concert, it amplified the exhilaration of "being there." The viewers were not connected to an apparatus physically approximating the feeling of floating in space. They might not have even had a sound system shaking their bones with deep pounding bass, yet it transcended just listening to a performance and they became part of a euphoric communal experience. We've all felt joy in living that perfect note, intonation, environment or community, so the virtual experience was not so far-fetched for our brains to grasp and register in a meaningful and joyous way. This event was a huge triumph for technology, but the technological gain paled in comparison to the heightened visceral experience it brought to its community.

Facebook is creating an immersive environment called Horizon to tempt users, AKA 'citizens', into spending their VR time in its virtual world. Facebook sees the potential in the numbers but is also aware of the challenges: citizens of Horizon must live by a set of standards and ethics; it will be a place where 'everyone feels safe and welcome'. There will be pitfalls as adult VR is alive and well, and there are no enforceable laws in virtual worlds to prevent violence, theft and other highly undesirable attributes in non-gaming environments. Horizon will be a relatively basic cartoon-like visual experience as the technology Facebook is using does not support high resolution rendering, but if Fortnite's Marshmello experience, and *Transition* represents precedence for Facebook's community, resolution might not be an issue for the gigantic community that Facebook is able to pull from within its own environment.

The big consumer players understand the need to be in the VR space; the ability to generate revenue is 'virtually' limitless, as will be the establishment of micro money-making opportunities for the sale of characters, powerful avatars, customisation, objects, services, and currencies. If users are also willing to build the world, (think Minecraft), then this is a move all the big players would be fools to miss. According to statistics, you have around three years to get your Virtual Reality business presence, and it won't be building and selling powerful wizards, it will be real world products and services; your business will be on a virtual street in the best part of a virtual town (well, hopefully.) If you don't invest early you may find it harder to enter without higher prices for already established valuable virtual real-estate.

The word 'presence' is becoming the word to use for action or engagement in the VR space. This year saw award-winning electronic violinist Lindsey Stirling hold a concert on TheWaveVR. The event drew 400,000 viewers from all over the world (Source: VRTimes), Stirling performed live while sensors she wore enabled her to be beamed as a dynamic and detailed avatar on to the stage. Stunning visuals played to both the avatar audience and screen-based viewers and being live meant being there was both desirable and possible. High-quality music, incredible visuals and the real live artist created the opportunity to be present and 400,000 fans took the chance.

Being 'present' in a virtual world might be difficult to achieve at scale for some sectors but virtual events are certainly proving successful – and it goes far beyond music/concert territory. More deeply challenging executions can be found in the arts when the creators leave room for audience participation in the storytelling. *The Dinner Party* installation was created in VR by storytellers

Charlotte Stoudt and Laura Wexler, and directed by Angel Soto, creator of *Bashir's Dream* (the story of a 14-year-old Syrian refugee in Jordan.) *The Dinner Party* conveys the story of an American interracial couple Betty and Barney Hill who, in the 1960s, reported being abducted by aliens. It is a well-known story in America. It is both a real physical and VR immersive experience. The setting is a 1960's house where up to 18 viewers can be seated at a real dinner table and given HMDs. Viewers are virtually lowered into the room to join the dinner party and view the characters up close and in 360 degrees. The production is phenomenal, the different experiences the couples have during the 'abduction' sequence are surreal and affecting.

*The Dinner Party* was shown during the Sundance Film and SXSW Festivals in 2018 to great acclaim. It allowed the viewers to experience the couple's story and drove them to recount it to others because of the way it was presented and the way they experienced it. For anyone with a story to be told, VR is one of the most effective and powerful formats.

So when will all of this gain traction; when will we put our VR content into our product and media planning as a primary format and channel? The ability to put viewers into a story, create the need to be present and engender emotion is driving the format, but the need to be 'present' will come down to the offering and both context and placement of the content. It needs to be focused and relevant to the viewer; it needs to be where the viewer expects it to be; and, it needs to be easy to view.

Beyond story, there is a strong base and many ignition points pushing virtual reality; add healthcare, education, the ability to visit Mars, the Space Station, or Angel Falls in Venezuela, the ability to build environments without needing to have technical knowledge and the ability to create a business in a 3D environment – where "being there" is paramount. This will drive the need for you, me, and everyone else to be present.

While we could lament how technology and/or limited mainstream access or acceptance holds us back from the full-bodied virtual reality future, there's a huge amount of technology proving that we are already virtually there. In the simplest form, we've all got tiny devices we can carry with us allowing friends or business associates from the other side of the world to be face-to-face with us in an instant. Such a feat brings to mind the Wim Wenders futuristic film, *Until The End Of The World*, where characters communicated via what could be considered FaceTime or Video Chat apps now, but were maintained within pay phone devices in the film. It is funny to think how pay phones or phone booths have become memories since the film was released in 1991.

Our personal devices are used to communicate individually or in a group (with Apps like WhatsApp) that, if considered as virtual forums for real-time discussion and deliberation, there's no denying we are already enjoying our lives with virtual connectivity to most anyone or anywhere. Do we even need to consider the visceral effect to realize we might already be virtual?

Technology and VR platform usage is closely tied to societal and cultural factors. The beauty in every successful technology is in how it actually enabled "shaping" by the people/users themselves – and not necessarily just commuted by the companies developing and deploying them. We've already proven on a worldwide basis that platforms and their mode of use cannot be forced or adopted in the old colonial style. Each community in each region finds their own way to socially engineer these tools to best fit their preferences, wants and needs.

What is truly evident in Pakistan – and can't be conveyed too much – is the richness of the people. Instead of focusing on presenting the people to others around the globe, more emphasis has been placed on sharing the geography. We've seen Pakistan's geographic beauty conveyed via some of

the platforms listed above, but only when we stumble upon some unknown access – and then, again, what is found is usually only focused on the places and not the people. Our interactions from the West with Pakistani citizens are limited by media representation and our proximity. How much would we benefit if we could connect virtually? Certainly, there are the limitations we've already discussed about the visceral and truly connected virtual reality – or just plain being there – we have yet to achieve in other ways. But we shouldn't be precluded from using the platforms providing a foothold in the visceral realm until the fully virtual solutions arrive in the future – whenever that may be.

When looking to connect virtually and viscerally with family and friends who have moved away – or never even experienced a place in real life – there are already built-in hooks for triggering the experience. In those instances, flat representations can do the trick and allow the mind and gut instinct to fill out the rest. But how is the gap bridged if neither party has been within a specific space or experience? We must incorporate and lean heavily on the existing hooks. Some very simple options are often overlooked: images or animations of family; a smile; a knowing and comforting nod from a character (real or imagined); the incorporation of music or sounds; or, simply the very clear direction of the participant's journey. Each of these on their own could prove huge in making deeper connections by engaging our senses, but we've often found that just placing participants in a space representing something they *might* know doesn't always work.

When platforms for engagement within deeper virtual experiences first came to market, the most prevalent experience was a roller coaster ride. This occurred for a number of reasons - with the larger ones being the assumption that most people had ridden roller coasters before, and dimensional modeling of the rides had already been in full use by ride developers for years. What wasn't considered appropriately was the speeds at which the animation needed to occur (and the computer processing power required), which immediately put the participant in a bad position optically - when humans already had a propensity for getting motion sick in real life on these rides. Virtual experiences weren't going to alleviate users' motion sickness – it only made it worse. Here was a case where even the inclusion of a smile, a knowing nod or proper music most likely couldn't help produce successful outcomes, but managed simplification of the experience might have. Hence, we cannot disregard simpler existing technical solutions (video conferencing, console gaming) and platforms (FaceTime, Zoom, Skype, WhatsApp) in seeking to attain meaningful virtual experiences.

As with technology, relationships are iterative. Introductions and friendships can bud in simple virtual spaces like Zoom. These then can turn to deeper business or personal relationships. Ultimately, they may very well jump from the virtual into the real with trips, meet-ups, partnerships and more – both inside and outside Pakistan's borders.

While even the VR community speculates we're years away from blurred delineations between real and virtual, we are already in transformation from experiencing a flat 2D digital world to 3D immersive experiences and are virtually there already. The production and consumption of these experiences may require some different skills and new knowledge, but we already know the key visceral ingredient is already inside each one of us worldwide.

The opportunities for societal and industrial growth are enormous when we factor in the connectivity these technologies are already bringing to our reality. The VR industry is clearly facing cost, comfort, and content issues, but the tide really is turning – especially once we consider the rate of change. Many current technologies and content may be lacking in the visceral benefits of “being there” or “in-person,” but others are arriving daily and getting closer and closer - until we finally reach critical mass and truly start to wonder what is real and what is virtual.

When we rest at the end - alluding back to *Transition* - we may never have a true grasp of what was real and what was virtual, but if we play things right, we'll have no doubt who we have true connectedness with. And, regardless of technology, geopolitical ideals or momentary lapses of reason, isn't that what we're really after – connections to each other and places?