GET REAL

from imagination *comes reality*

THE VIRTUAL WATER COOLER: WHAT IS A *METAVERSE WATERCOOLER?*

**By Ed Haravon and Rob Merrilees
Co-Founders of Get Real**

About Get Real

Get Real is leading businesses and organizations in their adoption of the Metaverse through the power of virtual reality, augmented reality, and other immersive technologies. We are a partner and advisor to organizations, leveraging a network of best-in class creative, technical, and informational resources in the industry. We work with our clients and partners to create scalable and successful VR, AR, and other immersive technology strategies that enable companies to more effectively manage events, collaborate, visualize data, train and educate.

Definitions

Virtual Reality (VR): an artificial environment which is experienced through sensory stimuli (such as sights and sounds) provided by a computer and in which one's actions partially determine what happens in the environment[1]

Virtual Office: a set of rooms or spaces in a Virtual Reality platform, which allows an individual, a team, or an organization to meet, to collaborate, to share multiple documents, to socialize, and to work in many ways resembling what can be done in an organization's physical office space.

Metaverse: a shared, realistic, and immersive computer simulation of the real world or other possible worlds, in which people participate as digital avatars.[2]

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Introduction

While the term "Metaverse" was originally used in Neal Stephenson's 1992 book, <u>Snow Crash</u>, the term only went mainstream after the social media giant Facebook announced its new corporate name "Meta" in October of 2021. Facebook made a big early bet when it paid two billion dollars for the virtual reality (VR) headset manufacturer, Oculus, in March of 2014. Since then other major technology companies, including Google, Microsoft, Amazon, HTC, Hewlett Packard, and Apple, have followed suit by investing billions in VR headsets, VR software, and of late, a whole host of technologies that have come to be known collectively as "The Metaverse."

While early efforts in VR focused on gaming, in recent years business and enterprise have begun to compete for center stage. The COVID-19 pandemic and the resulting decrease in business travel have intensified the felt need for people to connect with their colleagues and their clients. While the immediate reaction was to turn to Zoom and other video conferencing technologies to help address that need, many are finding this solution exhausting, distracting, and ultimately nowhere near as productive as meeting in person. So it shouldn't be surprising that the concept of a Metaverse offers hope for a better experience than that offered by a two-dimensional "face in a box" meeting on one's computer.

The good news is that VR software vendors have created several solutions to facilitate people meeting in the Metaverse. But what exactly does this mean and what does it allow people or businesses to do? Could it really be as effective as meeting in person? How would one go about setting up a meeting in the Metaverse? What are the limitations in doing this, and can one build more than one room? Can rooms be connected to each other? Could they be made to look like one's real office in the physical world? Why would a company even want that? And how technologically savvy does one need to be to build a "Virtual Office" in the Metaverse for oneself, one's team, or one's company?

The best way to address questions like these about Metaverse Offices is to use a similar framework as one would use to evaluate office space in the physical world. Questions like:

Does location matter? Do I need a realtor? If I'm building my space from scratch, do I need an architect? Do I need an interior designer? Do these rooms need TV's, projectors, pens and paper? What other capabilities should I integrate into my new office? Once moved in, what's next?

With all that as background, we will ask and answer one more question: Where's the watercooler?

Question 1:
Does Location Matter?

If the time-honored phrase describing the most important factor in real estate is "location, location, location," is that also the case with the Metaverse? While the technical location of the Metaverse usually is in the cloud, the equivalent to the "location, location, location" question shouldn't be answered technically. Rather, consideration should be given to the viability of the software company hosting your company's Metaverse Platform. You will invest in building out your Metaverse spaces, from designing the layout of the rooms, permitting access to important documents, or ensuring that the right external tools can be connected. What's more, your team will become accustomed to the look and feel of the various spaces, and how to use the headset's controllers to operate the space (think of the equivalent of a fancy wall panel in the physical world which controls the lighting, the curtains, the music, and so on).

While space in the Metaverse may only cost a fraction of physical real estate, switching costs are still real. Choosing the right software platform to be the host of your Metaverse is an important decision to be considered. Platform instability, lack of support, and limited feature functionality can affect the viability of your virtual spaces – leading to time and money wasted on recreating a new virtual world in a different platform. Fortunately there are several viable software companies offering technologically stable platforms to host your Metaverse.

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Question 2:
Do I need a realtor?

If you were new to a city in the physical world and wanted to lease or purchase existing office space, you would find a commercial realtor or tenant representative to help you understand the area and what might work best for you and your company. That real estate professional in the physical world would ask you numerous questions, including:

How much space do you think you need today? How do you anticipate those needs changing over the next several years?

While there are Metaverse technologies which support just a single meeting space, most solutions offer an unlimited number of spaces to choose from. One might find oneself in a (virtual) office with a 10-foot ceiling, in a large, open-air conference room, in a traditional boardroom, or perhaps even sitting by a firepit on an island in the middle of the ocean. Since most products now allow an unlimited number of rooms or spaces, the question of how much space one needs is usually moot.

What types of activities will be happening in your Metaverse?

You may strive to replicate in your Metaverse spaces all of the activities currently happening in your physical office. Alternatively, there may be one or two key use cases that have a need for your Virtual Office. Once you "move-in" it's very likely that you will have meetings and activities in your virtual space that would never have been possible in your physical space. Envision being able to network with people from around the world at a virtual cocktail party for instance. Or realize the ability for a single individual to have multiple offices, each designed for an entirely different audience, purpose or region.

While flexibility is a key benefit of the Metaverse, one needs to identify the critical activities that will take place in your virtual spaces. These tasks need to be handled seamlessly. For instance, if you're creating a space where there are going to be a lot of large group presentations, you will want to choose a software platform which has virtual auditoriums and lecture halls. If you need private meeting spaces for conversations with clients or vendors, you'll want to ensure that the platform you choose can handle small groups adeptly. While many platforms make available a wide variety of meeting room types, all platforms are not created equal.

Note also that meetings aren't always about grand presentation spaces or fancy boardrooms. Your team may thrive on having a lot of impromptu gatherings at individual desks in the physical office. It may be important to show others what is on your computer screens, followed up by a quick discussion. Choosing the right platform can facilitate these interactions by accommodating sophisticated observations and sharing of desktop screens.

What is your budget?

While developing one's Metaverse isn't free, it is significantly cheaper than building out a physical space and typically allows one to scale into the cost structure as a function of adding people. In a physical space, one must anticipate how many people will be hired over time in order to either secure the space or purchase the options to have room for future growth. With virtual spaces, one can buy additional licenses as needed, with the flexibility to scale back your cost on relatively short notice should that license no longer be required. The Metaverse represents a variable cost model for real estate, not unlike a co-location provider of physical space like WeWork - a huge benefit compared to the traditional fixed costs that come with physical real estate. Metaverse cost savings are usually realized in tandem with overall reductions in the cost of physical space.

The Metaverse can also be leveraged to reduce travel costs as people start meeting one another virtually instead of traveling to the same physical location, sometimes for just a few hours. Additional savings come from the reduction of travel-related expenses such as expensive dinners, airline tickets and hotel rooms. Monthly costs per user, including a license and a new headset every 12-18 months, might range from a few tens of dollars to a few hundreds of dollars per user per month, depending on your use case. Given that one road trip can cost thousands of dollars, not to mention multiple days' worth of time, having a virtual collaboration space can significantly reduce ongoing expenses for your company.

Furthermore, one of the greatest impacts of reduced business travel is that quality of life improves for employees due to less time spent on the road. That means increased morale, heightened engagement, and more time for leisure at home or for impacting projects at work. Clients or co-workers are also able to devote less time and money to participate in these meetings.

Question 3:
If I'm building my space from scratch, do I need an architect?

Not really. You and your company will intuitively know what you need. In the physical world, architects would work with you to identify requirements and then design a space which is as flexible and adaptable as possible. The design would accommodate as much as it could - given the constraints of a limited amount of physical space and your budget. Contractors then bid on the job and ultimately build out the space as specified.

Consideration of one's space plan is very different in the virtual world for a few reasons:

When one can have nearly limitless space, the demands of how to re-use the same room for multiple purposes are no longer relevant. If the current space is not suitable for a particular meeting or conversation, one can create a new space almost instantaneously. Depending upon the meeting plan and the number of attendees, the room can be "ready" in a few minutes. Virtual spaces can be reset in dramatically less time than physical office space.

When the cost of building a new space is relatively minimal, as it is in the Metaverse, the need to get it right the first time is eliminated. Experimentation is easy, and can lead to unexpectedly successful outcomes for your Metaverse spaces. While there is a hazard of creating a space configuration in your Metaverse spaces that is not intuitive to those who are using it regularly, rooms can be created quickly in the Metaverse and they can also be disposed of without cost if they miss the mark or have outlived their usefulness. This disposability of space rarely happens in the physical world without significant expense and lost time. Virtual Reality provides an ability to ebb and flow in response to the continually changing needs of a client, a team or an organization which will make a dramatically positive impact on productivity. In the real world an architect would strive to build an office space which will have a natural and intuitive flow. In the Metaverse, you can experiment with your design until you get it right. And then change again as needed.

In the Metaverse frictionless navigation is key. You will want to assess each platform's ability to move people from room to room. How easy is it to navigate? What will a first-time guest's experience be? Might they get lost? Certain platforms offer a way to easily move groups of people in an intuitive, user-friendly way, while others do not.

People in virtual spaces still need privacy. An architect would plan for some number of break out rooms. When assessing the various platforms to host your Metaverse, one will want to consider how to manage small groups or 1:1 private conversations amongst colleagues. This can be accomplished in several different ways:

- Some platforms use what is referred to as spatial, or 3D, audio which, when activated, allows for private conversations when far enough away from others. However, if someone comes close enough to you, as in the physical world, your conversation will no longer be private.

- Others address this privacy requirement by using a privacy "zone" that extends around your immediate vicinity; people inside the zone can speak normally, but your conversation is muted to everyone outside the zone.

- A third approach is to simply create a new room and use that as the breakout room for private conversation, although this would have the potential disadvantage that you and your colleague(s) are now separated from seeing or overhearing what was happening in the original room.

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Question 4: Do I need an interior designer?

No. Well, yes, kind of. An effective Metaverse space will maximize the productivity of those who are working within it. Just as different companies have a piece of their culture represented by the furnishings and accessories in their physical space, so too should a virtual space be able to mimic those same cultural traits. It won't be identical of course, but themes that are present in the physical space can be carried over into the virtual space. Whatever allows people to get into the mode of working more quickly and effectively should be considered.

The furnishings and accessories inside your Metaverse space can further your corporate culture in the same way they do in the physical world. If you work for a company which has a lot of games and puzzles in its physical space, your virtual space should have them too. If your physical office space is known for its beautiful library, then you'll want to consider a lovely virtual library within your Metaverse space as well.

Being attentive to the design within each space in your Metaverse is also important. The more the space replicates what they might see in the real world, the more likely they will not be distracted by being in a virtual reality experience. As in the physical world, the fewer the distractions, the easier it will be to focus on the work that prompted someone to go into your virtual space in the first place. Just because a rug can be placed six feet off the ground in the Metaverse, doesn't mean you should have a magic carpet in your conference room.

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Question 5:
Do these rooms need TV's, projectors, pens and paper?

While clearly your Metaverse spaces won't need physical televisions, projectors, pens and paper, some or all of the functions that those items perform are of course essential to having a productive space:

Physical TV's and projectors. Traditional TVs or projectors are excellent ways to watch video of course. One needn't go into a VR headset just to watch the evening news, a TikTok video, or YouTube. But there may be such a need if that content is needed in the midst of a presentation within your Metaverse spaces. One wouldn't want to have everyone gathered in a virtual lecture hall hearing a presentation, only to have the presenter announce that everyone needs to take off their headsets and get back onto their phone or computer in order to watch a video together, and then have to get back into the headset for the continuation of the lecture. Clearly it would be much better to allow the presenter to show the video seamlessly as part of their presentation on virtual screens within the space.

Pens and paper. During meetings in the physical world people often take notes, but this can be difficult to do while wearing a VR headset. In response to this challenge, many software platforms have created a note-taking capability within their environments. The most common solutions are:

- Offering access to a notepad within your headset view. You press a button and a notepad and virtual keyboard appear, allowing you to type by using an on-screen version of your hands (think digital hunt and peck method of typing where you really just use your index fingers) or laser pointers from hand-held controllers.
- Allowing users to take notes with a virtual pen, where one handwrites notes.
- Leveraging speech-to-text functionality, a technology which has improved greatly in last few years. The latest VR headsets are built on Qualcomm Snapdragon chips which are as powerful as the chips used in many phones where speech-to-text processing is commonplace today.
- Pairing a physical Bluetooth keyboard to your VR headset. Facebook has recently announced its "Infinite Office" which includes a set of new features to facilitate productivity while in an Oculus Quest. Towards this end, Facebook "announced a partnership with Logitech that will allow certain keyboards to be recognized, tracked and rendered inside" their headsets.[3]

Regardless of how you take notes in the Metaverse, it is important to have access to what you have written for later use while not wearing your headset. Many platforms now allow you to export notes to your email address, shared cloud drives, etc.

Question 6:
What other capabilities should I integrate into my new office?

While access to projector screens and pads of paper or other note-taking devices are required in the physical world, there are a number of purely digital capabilities that transfer readily to the Metaverse. When choosing a Metaverse platform, one should assess what sort of support is offered regarding:

Loading pictures. Having visual aids inside a space is a surprisingly effective way to create a mood or an atmosphere within a virtual space. Including client-specific branding can connote that their experience is being hand-crafted for their needs, and may be even more powerful when adding in your own company's branding assets.

PowerPoint® presentations, PDFs, and other files. Sharing documents that require group collaboration such as a simple meeting agenda, a draft proposal, or a proposed budget for a new initiative, are intertwined in our everyday work life.

Imagine seeing a marketing storyboard expanded to be 30-feet tall or having the most important slide from a PowerPoint® presentation be separated out from a deck on demand for special emphasis. One of the great strengths of Metaverse technologies is the ability to share multiple documents or files simultaneously. In the physical world, one may not have the room to dedicate to such a presentation, but in the Metaverse presentations and productions can take on a much grander scale. This can be effective when presenting internally and even more impacting when exploring possibilities with a new client.

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Access to third party productivity tools. Desktop or mobile-based productivity applications, particularly for file management (e.g. Google Drive or OneDrive), project/ task management (e.g. Jira, Trello), collaboration (e.g. Slack, Microsoft Teams) can now be integrated into many Metaverse platforms. Be sure to confirm that the platform you are considering supports the tools that are used by your company so they can be leveraged in your virtual spaces.

3D Objects. There are a number of different file types (.obj, .fbx, .glb, .3ds, .dae, .gltf, etc.) which allow for visualization in three-dimensional space. Bringing a 3D object into your Metaverse space can open up possibilities not readily available in the physical world. Perhaps you're with a manufacturing company that needs to collaborate with colleagues or clients on different product or color designs. One could load a 3D model of the item to be reviewed in your virtual space and then change its colors, its size, or even its texture. Maybe you want to compare the form factors of various products in addition to comparing the technical specs. One could do both in your Metaverse spaces if the platform you have chosen has the ability to load 3D objects of the specific file types (.glb or .gltf for example). Objects that could never be brought into a room in real life can now be virtually placed together in the same space for everyone to see and inspect. Consider a car, a train locomotive, a heavy engine, or the plans for a large-scale real estate development. Metaverse technologies allow companies to create "digital twins" – digital replicas of their physical world counterparts – which enable rapid iteration and group collaboration.

Screen sharing. With the Covid-19 pandemic, people have turned to video conferencing as a way to connect and collaborate. One of the more common tools used by video conference participants is the ability to share a computer screen with others on the call. Some, but not all, of the Metaverse platforms have already integrated this type of capability into their platforms. Doing so allows for a document to be shared that wasn't pre-loaded into the virtual space. Alternatively, screen sharing lets a participant without a VR headset join the meeting from a desktop, laptop, or mobile device via the webcam. Note that it is important to confirm that the audio capabilities of the platform will allow for the person joining via webcam to participate fully (i.e. listen and speak) in the meeting if necessary.

Question 7: Once you've moved in, what's next?

Now the fun starts. It's time for your team to experiment; and the best part is that it's extremely economical to begin your Metaverse journey. Expose your colleagues quickly to the new space in order to learn and observe all the ways that they also want to use the technology. It's not always practical to have employees weigh in on space design in the physical world, but now everyone can equip a room that they use every day with whatever they need. It empowers creativity and productivity, and increases a felt ownership and a shared sense of purpose for your company's space. Customize, iterate, standardize - then repeat the process. Allowing employees to generate ideas on their own on how best to use the new space, and then bringing those various uses back to share with a group which has made a similar effort can lead to an extremely effective brainstorming and assessment process. [Leigh Thompson, The Mind and Heart of the Negotiator, c 2001, Prentice Hall] Try giving some team members tailored assignments so that specific uses are developed concretely as well. Design a custom space to meet with a client – with elements and branding bespoke to their needs. It is not optimal to have all of your meetings in a one-size-fits-all boardroom in the physical world, so explore the creativity and flexibility that your Metaverse makes possible.

Just as you will need to spend time acclimating your internal team to using VR headsets, you will also need to plan how you introduce VR to your clients and other external colleagues whom you want to invite to your Metaverse space. It is recommended that their onboarding and VR introduction should initially be a fun-filled experience, where new users are getting comfortable with the technology prior to doing any actual work. Applications like Wander, Beat Saber, or even Creed are great ways to introduce people to VR. These experiences are fun, active, easy to use, and engage the mind. They also serve as a great way to get a person accustomed to being in a VR headset, navigating via handheld controllers or dealing with other mechanics, and being immersed in a single activity without all the distractions of the outside world. These experiences help prepare users for their visit to your Metaverse space and the subsequent business-related interactions. By introducing them to VR first, it will minimize fumbling with hand controllers, or other mechanics like adjusting the brightness of their headset. Most importantly, they will have become accustomed to spending time in VR and no longer be stunned (or distracted!) by just how breathtaking it can be the first couple times one experiences it.

Question 8:
Where's the water cooler?

Yes, indeed, there are such things as virtual water coolers! Why is something so mundane as a water cooler such a pivotal feature in the Metaverse? It's obviously not the water – rather, it's the connotation of the impromptu meeting, the culture-affirming quick discussion, the bonding that happens when you pass someone in the hall and ask them how their weekend was, the 1:1 post meeting wrap-up that happens on the walk to the break room. It's these small, but critical, culture-affirming interactions that are not happening in Zoom or other video conferences right now. You would never schedule time on someone's calendar to talk for just a couple of minutes, but what sometimes happens in those two minutes is just as important as what happens in long meetings. In one's Virtual Office however, these unplanned, two-minute conversations happen just as they would happen in one's real-world office. Encourage your team to explore, to walk about the virtual spaces, to find where the team members are hanging out, to visit the virtual water coolers.

What's more, you can expect to remember what is said during the ensuing incidental water cooler conversations. After a while, video conference calls begin to feel the same, but when conversations happen in three-dimensional space, what is said and who said it becomes easier to recall later on. "Our brains have incredibly strong visual and spatial memory systems," writes Kristin Merrilees in her article, "VR, Immersive Learning, and Visual and Spatial Memory."[4] She cites Barbara Oakley, Professor of Engineering at Oakland University and co-author of the book Learning How to Learn: "Our ancestors never needed a vast memory for names or numbers but they did need a memory for how to get back home from the three-day deer hunt, or for the location of those plump blueberries on the rocky slopes to the south of the camp. These evolutionary needs helped lock in a superior 'where things are' and 'how they look' memory system."[5] It won't be just the conversations that are straightforward to recall. An important implication from Oakley's work is that just as you remember where things are in your home, or in your office, so too will you remember where they are in your Virtual Office.

The Metaverse will only be more common in the years to come, given the anticipated dramatic expansion of Virtual Reality. According to a recent JP Morgan report, "The metaverse will likely infiltrate every sector in some way in the coming years, with the market opportunity estimates at over $1 trillion in yearly revenues".[6]

The introduction of a Metaverse space into the workflow of companies and organizations is a logical extension of this expansion of VR in general. Covid-19 didn't create the Metaverse, but it has accelerated its usability and functionality for businesses. Many software developers were moving in this direction prior to Covid, in large part driven by corporations' desire to reduce their carbon footprint and improve sustainability. With the onset of the Covid pandemic and the resulting inability to meet with others in far away places or even in locations close to us, people have recognized just how vital that feeling of presence with those at work and at home actually is. People have transformed their work activities to accommodate these constraints, and most expect that we will never go back to the way things were.

While no one should expect that the entire forty hour work week will move to the Metaverse, it is expected that many of those hours each week will in fact move to a Virtual Office for many organizations, given the compelling cost savings and productivity possibilities. It is easy to envision workers putting on their headsets to accomplish a certain task or hold a specific meeting, and then taking it off an hour later, only to resume in VR again for something else later in the day, just as we now interact seamlessly with our phones, our laptops, and our other devices. And maybe what prompts them to go back into VR later on won't be a meeting or a presentation, but just a quick visit to their favorite virtual water cooler.

About the Authors

Ed Haravon and Rob Merrilees are Co-Founders of Get Real, a partner and advisor leading businesses and organizations in their adoption of the Metaverse through the possibilities of virtual reality, augmented reality, and other immersive technologies.

Footnotes

[1] "Virtual reality." Merriam-Webster.com Dictionary, Merriam-Webster, https://www.merriam-webster.com/dictionary/virtual%20reality. Accessed 1 Oct. 2020.

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