what to expect

Interested in taking your meetings and events beyond video conferencing?

Then this Guidebook is for you.

You will find an introductory overview of 3D worlds, use cases for when they make sense, how you prepare for them, and how you can conduct various phases of an event or meeting, so that you can make use of the opportunities for deeper collaboration these environments offer.

overview

WHY?

With the sudden rise of remote work, many people are experiencing virtual collaboration for the first time.

While many are still discovering even basic tools like video conferencing, others are missing the complexity of interaction possible in real life.

Virtual Reality environments and 3D Worlds can help bridge this gap.

"We envision a dynamic virtual work environment anchored by genuine social presence. Next-generation devices would give people infinite workspaces with configurable virtual screens, whiteboards, and other visionary tools. You could work alone or collaborate in a persistent meeting room with remote coworkers like you were all sharing the same physical space, and with all of the nuance of in-person conversation."

Facebook, "The future of work and the next computing platform"

"In the coming years, technology will zip ahead and seamlessly, Zoom-lessly connect us in digitized realms."

Faith Popcorn, Futurist

According to a PwC report last year nearly 23.5 million jobs worldwide are predicted to be using AR and VR by 2030 for training, work meetings or to provide better customer service

Virtual reality used within businesses is forecasted to grow from $829 million in 2018 to $4.26 billion in 2023.

ARtillery Intelligence

INTRODUCTION

Why VR or 3D meeting tools?

01

While video-conferencing in combination with shared files and boards have quickly become a well-established method for virtual collaboration, these 2D formats have clear limitations. One of the most obvious implications of video meetings is, that they don't allow the participants to walk away for spontaneous one-on-one talks or that they don't cater for the break chat at the coffee machine.

3D worlds allow for much more spontaneous interaction than 2D and can support the development of team dynamics and creative ideation processes. 3D enables us (makes us feel) as if we are sharing the same room, creating a much closer connection between participants. Being in the same virtual room provides the option of parallel conversations, while, and therefore allows for more informal exchanges to take place.

Note however that we do not see this "third dimension" (at least in its current technical state) as a replacement for video-conferencing, but as a complementary technology that needs to be selected wisely to fit the purpose of the event.

One of the goals of this guidebook is to help you make an informed decision when and how to use 3D formats.

Meetings and Events

This guide is written for both team or group meetings, and for larger events. For better readability we are mostly using the word "event" throughout this guide, noting that this includes any kinds of 3D group meetings as well.

VR or 3D World ?

VR or 3D?

A short clarification on the terminology and technology that was the basis for this guidebook. The group writing this guidebook refers to themselves as "VR Explorers". We started our journey by visiting various VR Meeting software products with the goal to understand, if and where meetings in VR can bring a benefit.

We tested and scanned different solutions, some of them allowing a full immersion with VR goggles, others allowing the user to access the meeting space with the help of a computer and keyboard and mouse control functions similar to video games (so called 3D environments).

Due to the current limitations and accessibility of VR gear, we soon found that for now the more likely business scenario are meetings in 3D environments due to broader acceptance. Since they only require a normal PC and are keyboard controlled, it makes them easy to access for even non-technical users.

Neither companies nor individuals have VR goggles & gear available at scale. Much is evolving in this space, though, and we expect rapid evolution of these technologies - especially in light of the acceleration of 2020 and the sudden focus on remote work.

VR solutions like AltspaceVR and mozillaHubs cater to this situation by offering PC access in addition to their VR Gear main mode. Other solutions are 3D first, but offer custom VR solutions to their clients, especially for specialized training.

One example solution with a 3D first strategy for scaling is TriCAT. They focused early on game-like 3D environments for meetings, not offering access with VR gear in their standard version (though TriCAT offers highly customized VR HMD enterprise solutions as well).

TriCAT has chosen to focus on providing advanced meeting interaction (whiteboards, screen sharing, participant usable building blocks, customization of room equipment, choices of "human like" avatars) instead of a focus on full VR immersion.

As many other solutions were lacking around collaboration tools, and thanks to generous support from TriCat, we decided to develop major parts of the guidebook based on our experiences in TriCAT Spaces (www.tricat-spaces.net).

We are convinced, that most of our learnings from 3D shared in this book are also applicable for VR meetings and events.

**TriCAT Spaces
(standard 3D only)**

Via PC

**Mozilla Hubs
(3D, VR Gear)**

Henning

Oliver Pi

With VR goggles

In order to get a first impression of VR and 3D spaces, we suggest to explore free options such as AltspaceVR or Mozilla Hubs to get a first experience with a "light footprint" before "upgrading" to a paid solution.
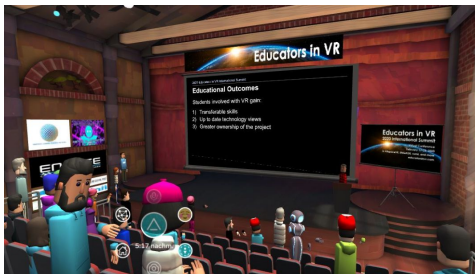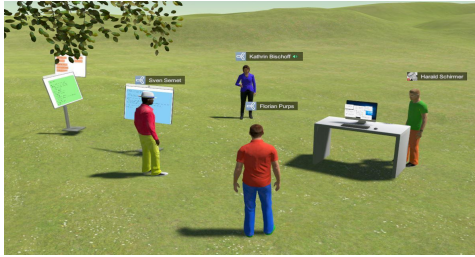
Via PC

**Altspace VR
(3D, VR Gear)**

With VR goggles

USE CASES

Dive in and ...

- Hold your next **team meeting** in an environment that soothes your brain, such as a green garden with lots of shady trees. Instead of staring at each other in a matrix of talking heads, you can sit around a campfire, or walk and talk with your team members across a green meadow while you discuss important topics.

- Have a great **interactive workshop with 20 or 30 participants**. At the entrance of the virtual 3D building you greet your participants and everyone goes to their workshop room independently (good signage is required😉). You can hold your kickoff in a large auditorium, and almost like in real life, you can hold design sprints, bar camps and explore many other formats.

- Conduct a **virtual trade fair with up to 500 participants**. Ok, that will be a bit of a challenge and requires some serious production chops - but it's possible. More solutions for large gatherings and trade shows and fairs are arriving nearly daily. These solutions enable you to have separate buildings with expo spaces, auditoriums and multiple parallel sessions. Participants can jump between sessions, explore booths and have 1-on-1 conversations with sales staff, or have "hallway" conversations with other participants - all without having to walk through those hallways.

- Innovation Sessions and Design Sprints
- Podcasts and Interviews
- Conferences
- Meetings
- Trainings
- Coaching etc.

Most offline format can be adopted in 3D worlds relatively quickly with a bit of experience - and the right mindset.

Key to the right mindset is that we bring our focus back to people and the quality of human interactions - especially in virtual environments.

Working virtually is exhausting. Our brain is constantly dealing with the cognitive dissonance of the "presence of absence". We see and hear each other, but at the same time also know that we are not actually present with each other.

Due to the projection into an avatar, and our association of that avatar with the person controlling it, our brain is less taxed, and 3D environments are actually less tiring than video calls.

As a result, it is easier to stay in 3D environments longer without being mentally exhausted by the virtual session. This is key, especially for longer formats such as design sprints. In addition controlling the avatar with the keyboard keeps participants engaged.

Innovation &
Design Sprints

Innovation is as much art as it is science. For art to occur, there has to be space for randomness, for synchronistic encounters, for chaos.

Of course, these elements are always present, and can to some extent be replicated even in a somewhat static frame such as a video conference.

We found that the ability to move in space opens mental spaciousness in a different way than when we are transfixed on a bunch of boxed faces. Given, that it is happening through projecting on the avatar, it still creates a sense of freedom.

The ability to step away to have side conversations, cluster randomly in groups, and especially in environments that allow editing, the interaction with the space itself can spark high levels of playfulness and creativity.

Out of the environments we reviewed TriCAT in particular offered supportive functions for collaborative Innovation: from Whiteboards and Mediawalls, to the option to turn on environmental editing functions for participants, allowing activities similar to LEGO Serious Play with objects in the environment (also see under CONNECT).

Overall, we found that the experience was less tiring than regular 2D collaboration, afforded multi-day work in a saved work environments to return to and continue work on, and it also sparked different levels of creativity, which can be further amplified through conscious design and preloading of the environment.

3D worlds are well positioned to support teams with collaborative innovation and design sprints, and we expect to see an increase in use of these environments as innovation goes virtual.

THE BASICS

Before you start – setting the context

02

Team Phases

When creating new teams, reference is often made to the stages of group development according to Tuckman.

These phases are called **Forming, Storming, Norming and Performing (and adjourning)**.

We have observed, that moving a team to 3D can be a trigger for re-initiating this cycle. Even established and performing teams might fall back to the Forming stage if moved to a new collaboration environment. Therefore, it is recommended to allocate sufficient time for living through these stages when starting to work in 3D.
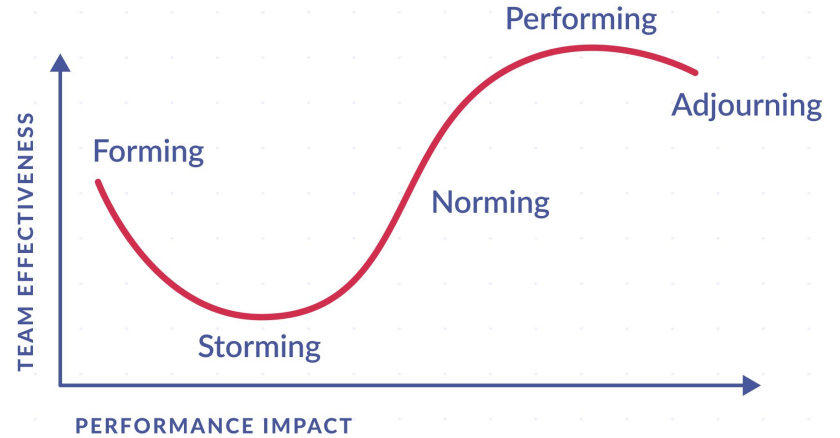
Cultural implications of hosting, especially internationally

Hosting an event virtually by default transcends locality and even time zones. As you are thinking about setting up an event, make sure to be clear on your audience.

Are they all in the same time zone, or spread internationally?

Are there cultural preferences and rituals you need to consider?

For some cultures, especially more individualistic ones, participants will probably be okay with being a "virtual individual", but other more collectivist cultures will need a bit more guidance on how they can be comfortable. The best thing you can do is empathize. Imagine your participants ahead of time and think about what they might need.

A recommendation for such a "new space" with mixed cultures: use the exchange about it as a team building exercise – discussing valuable (appropriate) behavior in this virtual space with key participants ahead of the actual event.

Questions for Connecting:

- What makes me feel comfortable?
- Topics I care for
- Topics to avoid

Ground Rules to create
Psychological Safety

One thing that can help is to establish and share ground rules for the meeting (a good practice for any meeting).

These can be sent ahead of time in preparation for the event, and you might also want to post them inside the environment on a media wall or whiteboard, so everyone can see them.

Having some basic ground rules for behavior sets the tone and establishes psychological safety for participants.

Beyond Ground rules, everyone appreciates clarity. Especially when diving into new territories. So, make sure to send out a clear agenda ahead of time, and post it throughout the virtual event space.

Ground rules might include:

- I agree that I am responsible for my safety and well-being
- I agree that I will minimize distractions
- I agree to be present
- I agree to be curious
- I agree to listen
- I agree to treat everyone with respect

Since you will not have to point out where the bathrooms are, make sure to at least let people know when there will be breaks, so that they know they will be able to take care of their physical real-life selves.

Aggression and Physical Personal Space in VR

As humans, we have a sense of the space around us. Across cultures, this personal space varies. In some cultures, people get very close to each other, in other cultures, people prefer to keep more of a distance.

This curiously translates into virtual space.

Here too, people find it uncomfortable, when others are too close to them. Moving toward someone with your avatar can even be interpreted as aggression. So be aware that similar cultural differences can also exist here.

In some applications, e.g. AltspaceVR which is particularly focused on social, and also younger audiences, and aimed at VR vs 3D, there is even a "bubble" function, which will blend out avatars if they are getting too close.
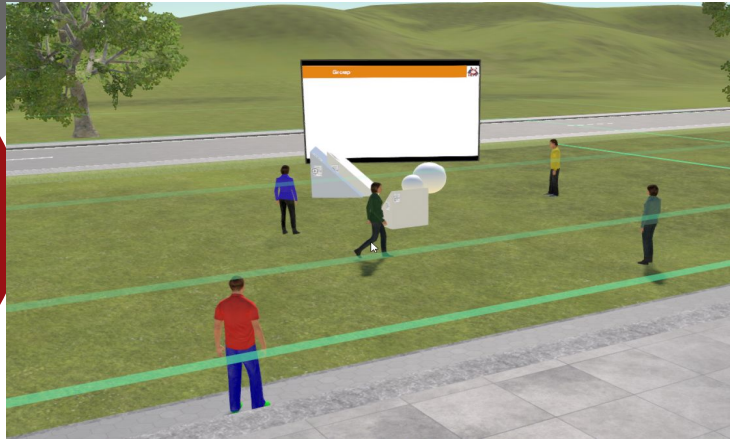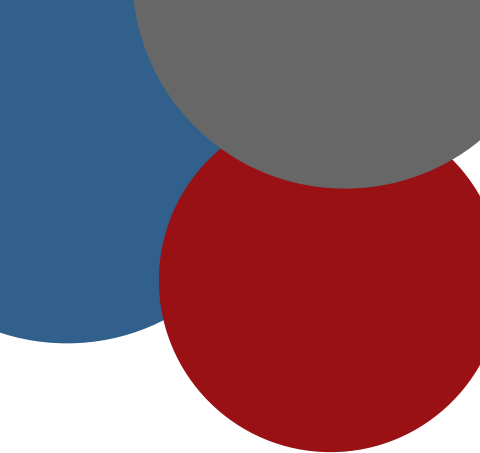
**TriCAT Spaces
Audio Zones**
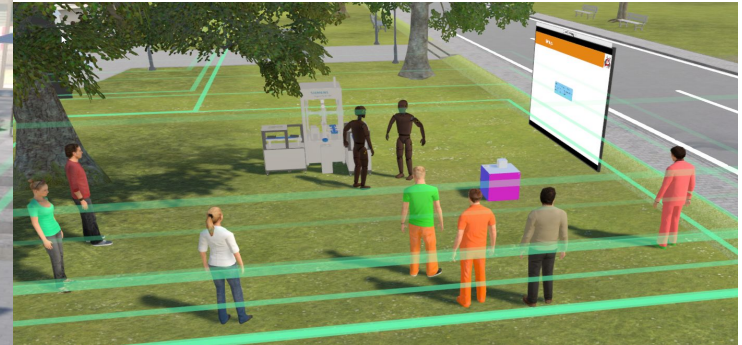
Spatial Sound
The Audio Experience

The audio experience is an essential part of well-being in 3D. The spatial sound allows the participant to identify from where another person is speaking to them and to locate a speaker in the room. Even the hum of people talking as background noise during a group exercise gives a sense of belonging to the group.

As the tested environments show considerable differences with regard to their audio behaviour, we recommend to test the audio with a group of people in advance if you are planning a larger event in 3D. Be aware that not all headsets support directed audio (especially Bluetooth headsets sometimes limit hearing directional sound). In the following paragraphs we are sharing some observations:

- In TriCAT one room typically is one audio zone and you can only hear people who are in the same audio zone as you. However, if many people are in one audio zone, the general noise level becomes high and it can be difficult to hold a side talk in a room or area with a larger group. For real private conversations you need a clearly separated audio zone. TriCAT offers a function to instantaneously create audio zones wherever you are, marked by lines on the floor. Only participants inside the audio zone can hear each other.

- Altspace VR is one of the environments with the best spatial sound. Once you are in a world, you can easily identify from which direction a speaker is speaking and turn into his/her direction. The sound level increases the closer you are to a person. This works also with 20-30 persons in the room, spread around different corners of the room. For presentations Altspace VR has a megaphone functionality, that amplifies the speaker´s voice for all participants.


Picture: Kent Bye, Laval Virtual Conference in VirBELA, April 2020

- The LavalVirtual Conference in VirBELA used marked audio zones. At a large beach they put up umbrellas with audio zones for 2-4 people. In that way many people could be on the beach at the same time, but only people under the same umbrella could hear each other. This worked well for side talks, but could also have the awkward effect that you found yourself at a crowded beach in full silence (because all other people were under umbrellas in their own audio zone). Kent Bye, the author of the Voices of VR Podcast has written an insightful Twitter Thread on the Laval Virtual Conference.

- Sound is important in 3D for orientation. It is therefore not recommended to mute participants by default.

- While text chatting can be useful in 3D as well, it does not have the same importance as in video-conferences. In 3D there is a primacy of voice, and participants should be encouraged to raise their avatar´s hands and voice questions to the facilitator instead of sending a text chat.

Expect Technical Difficulties!
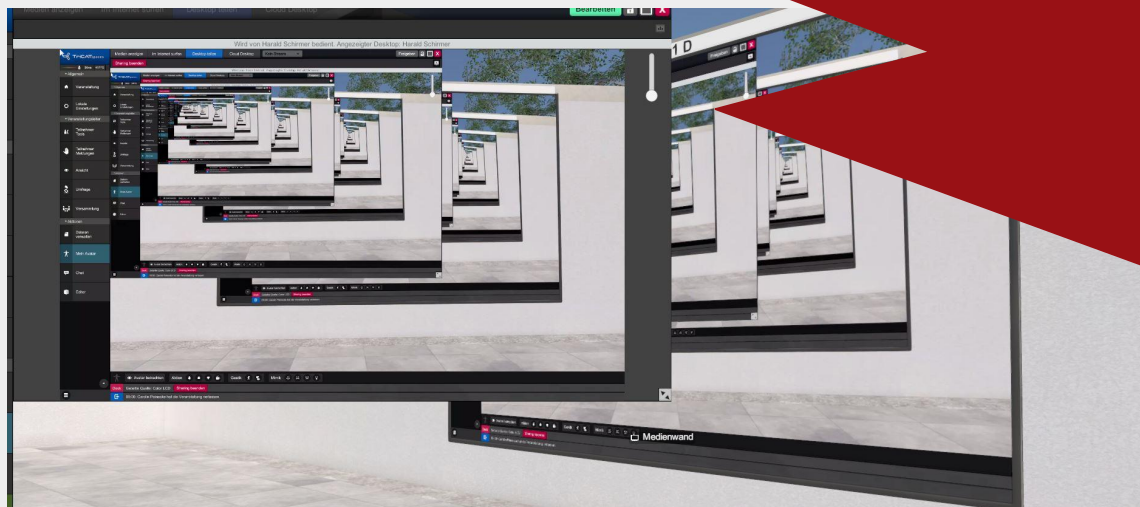
3D environments are still a relatively new technology. Therefore, be prepared to deal with technical difficulties, have a "Plan B" available and allocate time for unexpected technical problems. Users might be inexperienced with joining a 3D environment, therefore special care must be taken for the pre-event communication and the on-boarding experience. See the following chapters on Pre-Event and CONNECT for details.

During our tests we experienced issues with screensharing and uploading files into VR and 3D worlds. This is not necessarily due to software bugs, but to the complexity of the UI or unexpected incompatibility of certain devices.

We therefore recommend special care and preparation for important content. E.g. if you are planning for a presentation, we recommend to have the presentation uploaded in advance or/and available with the presenter and the host of the meeting in order to have multiple options for sharing.

And take it with humor. Your environment might crash. There might be bugs. Instead of stressing about that (in which case your will stress out your participants), take the situation lightly and find a way to play with it, rather than being stomped by it.

Avatars re-spawning at the starting point without the ability to move after a crash of the environment during one of our events.

TIP: Share a Plan B upfront: "If something happens, do this:... (close and open again, log back in, contact us via parallel chat, wait 2 Minutes, try again...) This reduces the risk of people being lost or disappointed.

PRE-EVENT

03

Starting with the end in mind

Before you start planning your event, make sure you understand your goals, and that the desired outcomes of the event are clear. They are your guidelines for all decisions in context of the event design.

Planning a meeting or event in 3D in general has a similar level of complexity and needs a similar level of care as a live event. Refer to all established methods of event / meeting planning in your field of business, adding the special requirements for 3D as explained in the next chapter.

For a general guidance, you might want to use the Event Model Canvas: https://edco.global/eventcanvas

Planning the
Event journey

An event in 3D worlds is actually very much like an event in reality, only without having to travel there. It does take a bit of extra effort, though.

You have to prepare participants for this in advance and clearly explain the additional effort. You typically don't need hours to get a 3D environment running, but it definitely takes longer than downloading a Video Call plug-in - **after all, you will also still have to get dressed virtually** 😉

Two keys, especially for corporate events:

- Bring your IT on board ahead of time (make sure to check on things like proxy servers, firewalls and the ability of employees to install software…)

- Make sure to send the invitation with plenty of advance notice. Tell participants exactly what steps they need to take to install the app, test audio equipment, select an avatar, and take their first steps to explore the environment.

VR/3D Events
Special Considerations

- Check the hardware requirements for your preferred 3D environment and ensure, that the audience has access to the hardware. 3D works on most current laptops, notebooks or computers, but mostly not on tablets. As 3D requires quite a bit of computing power and graphics, older computers or ones with very little RAM (main memory) might not be capable of running 3D worlds. Macs can also present an issue.

- Take special care for the pre-event communication. Consider pre-event activities in 2D, e.g. to introduce participants, to explain the context of the event, to share key information in advance, or to provide service and support.

- **Important!** Try to ensure, that participants familiarize themselves with the 3D environment before the first event. Most environments offer a training environment for first time users to take their first steps.

- If you want to be on the safe side, conduct a test session in advance of the event. Sound settings in particular can be tested here. Issues with feedback often occur at the beginning. For the test session, set up a Slack or MS Teams channel to communicate, and to collect typical questions and challenges that arise. By collecting questions in a public channel you can reduce the need for personal support.

- You can also incorporate small tips and tricks into the event journey and the arrival part (see below).

- Depending on the size of the group and the goal of the meeting we recommend to have more than one host. It's important to provide guidance to the participants especially when they are in there for the first time. Also at least one person is necessary to take care of taking screenshots or do video capturing.

Plan like for you would
for a wedding party

As the VR event planner or host, you are responsible for "everything"!

Start with this mindset when you start to set up your virtual rooms. Are there enough chairs and whiteboards for everyone? Do you know the host-tools well enough to fix any smaller technical problems ad-hoc, can you "magically" produce another chair should you need one last minute?

With a growing size of the group, we recommend to have a team of hosts with clear roles especially for the welcoming phase / reception. Arriving for some people in world is easy, others need to be coached a bit - train your empathy and find out what resonates or what's needed.

Especially make sure - like a good party host - that nobody is standing around alone after arrival, try to make connections between people or at least to encourage participants to explore the space while others are still arriving. If people are late, help them to find the fastest way to the opening session.

Moreover most visitors appreciate a hint, what features can help getting to know the place e.g. the "Orient me" view in TriCAT (showing a camera perspective from above to get an overview).

It is also a good idea to keep people engaged early on through encouraging them to explore - keeping their fingers busy on the keyboard (moving Avatar, Laser pointer, building something…).

Finally, make sure to offer help if participants need to step away or take a break. Like in reality, where you as a host might need to show someone the way to the bathroom, ensure to show people how they can step away or talk in private without disturbing the group.

Keeping an overview
with a script

Like with any offline event, we recommend to create a detailed script for larger events. See the following example:

#	Action	Where	When	Who	Notes	Duration (min)
1	Arrival of host team, setting up the space	space	8:30h	All hosts	Stand-up + creating enough chairs & whiteboards	15 min
2	Arrival of participants	reception, space	8:45h	All	2 person at reception (Harald, Henning) 2 persons at information desk (Florian, Kathrin) 1 person at the meeting point for the opening presentation (Philip) 1 person in the building (Sven)	15 min
3	Official Welcome & Event Opening	auditorium	9:00h	Philip		10 min

How do I record my session?

From Zoom and Co. we have a frontal view and therefore only one camera perspective, which is the same for everyone involved. That is not the same in 3D worlds: if we rigidly record the event from a corner of the room, we have a boring and long recording of an event.

Alternatively everyone can record their own view with common tools and later make it available to those involved. In that case it is - of course - only the personal point of view recorded. What is spoken and shown elsewhere escapes the ego-receiver.

The third alternative, especially if we want a high quality recording, is to log our own small camera team into the virtual building. As in reality, the only task of the camera avatars is to get the best settings. This is followed by cutting and processing. Like in reality event capturing.

All common tools are suitable as a recording tool - personal preference decides here.

Note: *In some business contexts it is good practice, to create signed protocols of meetings. You might want to discuss in advance, if the written protocols can be replaced by a recording.*

Recording & Capturing
Practical Questions

- Consider, that you might need a special consent from participants for audio / name capturing.

- For all types of captures it is necessary to consider if you want to see the participants names in your screenshots or videos. Note that this also depends on the data privacy agreement/disclaimer with the participants. Several programs allow you to toggle the name display above the avatars and also the menu display.

- The best way to do the screen capturing is by using a common screenshot tool (e.g. snipping tool, greenshot editor, etc.). Preferably the screen capturing software should allow you to choose a cut-out so you can leave the operation panels out in the screenshot . Then it is more likely that you don't need to do picture editing of your screenshots. It's also helpful if your software allows you automated saving to a default folder with a date and a time in the file name.

- Whiteboard capturing can be done easily by using the screen capturing function of the whiteboard. It is then stored to a standard folder on the desktop. Currently export of virtual post-it cards and whiteboards is limited to "pictures". To re-use an editable text, individual copy-paste is the only option.

- Take written notes of special quotes, citations or other special moments including the time. This will help you to remember what happened. Notes can help you to quickly find the key moments in a long video capture or to write a comprehensive vivid article about your event afterwards.

Framework
for the Guidebook

With 3D environments emerging and evolving, there is a plethora of formats that can be transferred from "real life": Team Meetings, Barcamps, Co-Creation, Design Thinking sessions and sprints, or even virtual conferences.

For this guidebook we decided not to focus on a specific meeting format, but to base this guidebook on some general phases of a meeting or event. Building on MG Taylor's Scan-Focus-Act, we used LUMAN's Connect/Scan/Focus/Act framework as a baseline for the different phases of a gathering – especially as it starts with connecting, something that is key for all good collaboration.

We have paid special attention to the CONNECT phase as this is a new experience for many, and if it goes well, everything else becomes easier - in the end a successful event is about the quality of connection between participants..

CONNECT
How do we ensure people feel connected to themselves, each other, and the tasks at hand? This includes introductions, warm-ups, energizers, and familiarization with the 3D environment.

SCAN
How do we get an appropriate spectrum of information? This includes collecting ideas, topics, thoughts, brainstorming, presentations, and group intelligence harvesting

FOCUS
How do we narrow down, make decisions and distil learnings? This includes how we synthesize ideas, decide as a group, and prepare for actionable next steps

ACT
How do we define next steps and make sure that they are taken into the "real world"? This includes capturing to-dos and commitments and deciding on follow up steps for after the meeting.

THE EVENT

04

CONN ECT

WHY?
CONNECT

When gathering in a 3D space, the conCONNECT phase serves multiple functions.

While in the physical world most of the connect phase is about connecting the people in the room with each other, establishing Psychological Safety, and about finding out where the bathroom and coffee machines are, the 3D space adds the aspect of connecting with oneself. Before a person can comfortably move around in 3D, the person needs to feel happy with the chosen avatar and confident to navigate it.

Only then can participant start to look up and out and start to connect with others and the virtual world around them.

At the same time, this "getting to know my avatar" is a great learning and connecting opportunity. Observing others, seeing what is possible, asking them how that works – fosters curiosity and builds personal connections.

When designing a 3D event, it is important to take special care of this phase, and to plan activities that allow a step-by-step immersion in the new environment.

Comments & Ideas for Facilitators

- Consider to separate the CONNECT phase into different meetings, e.g. have a pre-meeting that allows participants to connect with their virtual self and the environment, before you start with the core meeting agenda 1 or 2 days later.

- Instead of using whiteboards and written interaction we made good experiences with using constellations to connect the group. This makes people actually move around in the virtual space. For example having people sort themselves on a world map on the floor to get a 3D-picture of where the group is based works as a nice opener and it allows people to get used to the environment, while being immediately engaged (detailed explanation and more examples below).

- When using the constellation technique, we recommend facilitators to observe the group dynamics and ask questions based on their observations. E.g. if the whole group gathers around one end of a scale while only one or two people gather at the other end you could ask "How does it feel to stand alone on that side? "instead of asking "Why do you stand there?

TIP: Don´t explain to much. Let participants learn about the environment by experiencing it. E.g. if you conduct a group exercise in the beginning, you might end up with a high noise level because many people are talking at the same time. This can be a desired outcome if you want them to feel like they are truly "in a room together".

Choosing an
Avatar

Choosing an avatar is a fascinating, psychological phenomena and will continue to be an increasingly interesting research topic in years to come.

From projection of desired selves to our ability to play with our psychological personas. Already in the early days of Second Life, one of the first mainstream 3D games, customizing avatars quickly became a lucrative business (which the platform allowed unlike many 3D solutions that are either limited to a few standard avatars, or allow only basic customization).

An avatar can be anything, from anatomically correct representations of physical-life characters, to fantastical inhuman representations like dragons or aliens. Different environments offer very different choices. Some environments have only few cartoon-like characters, providing a level of anonymity especially in social VR environments, others offer "office stereotypes", especially solutions more oriented toward corporate learning. Some environments allow the use of webcams as an overlay on the characters head, some take webcam pictures and create a 3D representation of the head to create recognition among   colleagues.

The option to select an avatar that the participant is comfortable with, is a key criterion for well-being in 3D and is essential for creating identification and immersion.

Issues with choosing an Avatar

We found that the choice of avatars in most 3D worlds in general has a lot of room for improvement and can also indicate a lack of diversity in 3D developer teams.

As VR is a projected "perfect world", it seems programmers only allow "perfect" characters (not only critical for diversity and culture reasons, but because of the imperfections that make our world interesting). Also compare to some social channels, where only perfect pictures, bodies, vacations are posted – creating psychological problems… self-esteem, depression, loneliness, and isolation.

Here are some obstacles that we found.

- A young bald person looks for a bald avatar – and finds only an old man.

- A woman looks for an avatar with a neutral body shape – and only finds Barbie dolls and Lara Crofts.

- An intercultural training is planned. But all avatars look Caucasian or maybe African, but few other ethnicities are available. Also missing are cultural symbols like turbans or a thwab (arab tunic).

- A tall woman looks for an avatar that is taller than the male avatars. None are available.

- A manager looks for a wheelchaired avatar to step in those shoes for the meeting experience, but wheelchair options are not available.

- A pregnant woman would like to make her pregnancy visible to colleagues – but such markers are not available.

With this limited choice in avatars, we have found the following best practices:

- Don't necessarily try to rebuild your physical self in the avatar. Try a choice of blue hair, a bright yellow suit or swap gender. You can be anything in 3D.

- If you are a frequent user of 3D, people will start to recognize you by your avatar. This works better, if you choose something unusual in your avatar and stay consistent. A special color for your suit, red shoes, blue hair. Get creative, build a personality, style, reputation!

- Black suits are difficult to distinguish and remember in 3D – like black suitcases in a Terminal.

- As the avatar mainly stands in 3D, it can help to use a standing desk (instead of sitting) during the 3D event in order to create a closer association with the virtual persona.

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Arrival in a virtual world
Imagine being beamed to a new planet

To create the feeling of being welcomed, but also to establish psychological safety for participants, we recommend to put a strong focus on the first impression and flow of your guests entering your virtual world.

Unlike in Video conferences, where you never leave your desk, in VR you enter a space, where virtually everything is possible. Guidance and connection is key to inspire curiosity and playful exploration - so that you can host valuable events with great engagement.

You don't want to have "dead" Avatars standing around, clueless guests or lonely people getting lost outside your agenda, left alone in a room, and ultimately logging off.

Virtual collaboration is about building personal relationships, informal exchange or active participation, reaching out to each other, guiding, learning and exploring. The arrival and first steps, first contacts, short tips and clear instructions will ensure participants know and have all they need to be a valuable part of this environment.

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Be helpful at the beginning,
then open space for discovery

TRUST: People are generally curious, love to share and try out things together

- A lot can be left to self-organization

- Focus on good overall framing with plenty of extra time to learn and exchange

- Establish an engaging environment for people to "self-explore"

Recommended roles at arrival:

Welcome "**Receptionist**" at arrival space: Make sure your guests are welcomed at the entrance with a short hello, visual recognition (logo, title of the event…), and are then guided to a second place to move on to (in order to avoid feeling left alone, queues, stress or too much noise in the spawn point)

A "**Techie**" on stand-by: Helping with first technical issues, ideally connected through a second chat option for those who have trouble entering. They should have host rights, so they can support participants with sound or other technical issues.

"**Buddies**" - to guide your participants: Volunteers can help participants move away from the spawn point and immediately engage them, e.g. providing them with a first simple task, showing them some moves, the agenda, or meeting points and rooms.

Expect
different reactions

We have found primarily three reactions among participants in our 3D events:

1. **Astonished**: people are surprised by the virtual environment, its opportunities, details and options for interaction. As a result they start exploring everything to experience what is possible. Be prepared for this behaviour by planning time for experiments. If a group mainly consists of people that show this reaction, avoid rushing into the agenda.

2. **Confident**: people get what they expected. They are happy to see a "copy" of the physical world with some clean, save feeling and possibly even "home" in 3D. People who are confident are able to concentrate on what happens in this environment and to focus on the meeting agenda.

3. **Disappointed/bored**: people come to 3D/VR expecting to see a "new world", hoping for anti-gravity, fancy avatars – the full creative potential of a virtual world, not limited by physical boundaries. Find a way to engage these disappointed early on in the meeting (e.g. with constellations) in order to keep their minds engaged (and maybe enroll them in supporting others, for whom this is still overwhelming)..

In general, repeated meetings in 3D create a feeling of "home". This can even be enhanced, if you decorate your the room walls for your teams (our home/ our whiteboards). 3D offers the possibility to design your own virtual offices and create a virtual teamwork environment. Instead of duplicating your real offices in 3D however, we see big potential in solutions that allow teams to build they own more creative rooms.

OUR VISION:
Build your team a new home.

https://vispa.io/en

We see solutions like https://vispa.io/en evolving that allow building walkable project journeys that teams can come back to in their daily meetings.

Make your space
easy to navigate

Space setup recommendations:

Offer visual signs, the agenda or a location plan throughout your environment. This way your guests feel comfortable and find their way around, or be reminded of where to go when – without the need of diving out of the space to check emails, their calendar or invitation letters.

Additional orientation video in the room to show basic navigation, introduce features, or point to next steps.

Create a communication
and collaboration space

Main advantage of VR is the "shared room", similar to the physical world experience of meeting people and doing things together.

It is important to create immediate opportunities to talk and to get people used to the idea that here we speak with each other - in contrast to virtual 2D meetings we recommend to avoid text chat *(or would you send someone in front of you a text message in the physical world?)*.

Get into working as quickly as possible in small groups so they can experience "interactivity". Examples for these activities will follow on the next pages.

Allow some purposeful chaos - e.g. all people talking at the same time to make people aware of their own talking.

Don't explain everything!

Invite your guests to play around, observe others and talk to them, to find out about avatar options or environmental features

Connect
one-on-one

As a baseline, approaching someone in a 3D world or VR has the same rules as in real life ("IRL"). Respect and consideration are always a good idea.

When approaching another avatar to "get to know" the person, ensure to stay at a comfortable distance before engaging, and starting to talk. The spatial sound will help the other person to connect with you and to identify your position.

Curiosity, openness and kindness don't go out of style, and are particularly important in a world where we can not easily process visual cues to resolve irony or sarcasm and other subtle expressions. Add to that an extra dose of patience. You never know what is happening for someone else, and they might be trying to answer your questions, but have network problems or haven't found the unmute button in time.

Depending on the environment you are in, you will have different ways to connect with the other person beyond your voice. With today's technology, there are mainly two options:

a. **Web Camera Feed**
Some software like TriCAT or MozillaHubs allow to embed a webcam feed above an avatar. It is worth to check out the function – though some users also find it irritating and too much to focus on "two faces" at the same time. If the function is used, it should be a mindful decision and not an "on by default".

b. **Avatar options**
The avatar options to express emotions or support communication with gestures is what differentiates the various 3D worlds. While most avatars can move their body and their head (e.g. nodding is possible) - full VR environments like AltspaceVR and MozillaHubs also allow controlling the avatar´s arms and hands. This is done with two additional controllers that come with the VR glasses. This option is not possible if entering a VR or 3D world from a PC.

Here is an overview of what we have seen on avatar expressions in 3D worlds:

- Waving and clapping
- Expressing support, love for an idea, enthusiasm
- Choosing from a small selection of facial expressions (e.g. happy, sad, tired, angry)
- Sleeping (in case you need to step away)
- Using a laser pointer

We expect that future technology will allow a more fluid overlay of avatar with a person´s webcam feed, so that the avatar will be merged with real time video. This will further enhance the possibilities to connect with someone else in the virtual world.

In addition, AI can already recognize user facial expressions and emotional states from a webcam feed (or even through tone of voice), and will soon be able to project them on facial expressions of avatars (remember Max Headroom?).

Connect
as a group

In order to connect a group in 3D, we recommend playing with the environment and to encourage the group to do "physical" exercises. This can be, e.g. :

- Doing a scavenger hunt
- Doing a parcours with tasks
- Set tasks like "find someone with the same eye color in real life as you have", "find someone from the same city" - people will need to move around and speak with various people to complete the task. They will also learn about the functionality of spatial sound.
- For advanced groups: Set a team building task to build something out of 3D objects (if the environment you are in allows that functionality - see the Advanced Teambuilding Exercise below).

Icebreaker Exercises to
connect as a group

Laser Pointer Exercise: Every time someone speaks, everyone else uses the laser pointer to point at them. This can focus a team on listening and it can also increase identification with the avatar. However you might want to reflect with the team as well, what it feels like to be pointed at.

In our experience these "physical" exercises work much better, than using e.g. a whiteboard writing task to connect. By using a whiteboard in this phase a lot of the momentum of 3D is lost and there is the danger of losing the benefits of 3D.

Map Exercise: Instead of showing a map of the world on a whiteboard and have all participants mark their location with a dot, we recommend to put the map on the floor – which is easily possible in many 3D environments – and simply have the avatars stand on the place where they live.

Group Constellations
and games

In order to get participants to interact and get an impression of the group, let the participants line up based on provided criteria. There are two possibilities:

a. **Use a binary question** - The chosen criteria or question can have a yes/no-Answer (e.g. Do you already have experience in 3D?)

b. **Use a scale-question** - For example have the group sort themselves by their birthdays throughout the year or by their location north to south. Questions with relation to the event topic can reveal insights about the group (e.g. sort by level of experience from 1 to 10 in 3D)

It is helpful to indicate the space in which the participants shall line up by using a colored shape (maybe with the beginning and end criteria of the scale).
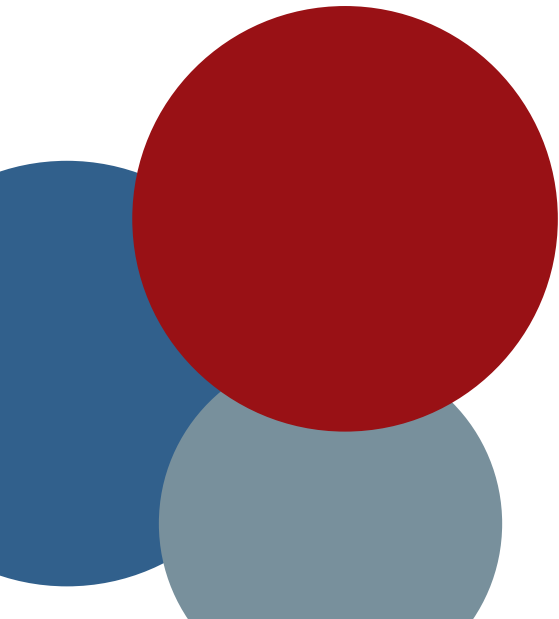
Our team, lining up by their birthday throughout the year.

Another warm-up, that needs a bit more preparation and time is a scavenger hunt. **A scavenger hunt can be easily realized in 3D.** You could let the participants search for different objects or write letters on several hidden objects that resolve to a solution word.

For the scavenger hunt you need to hide objects in the 3D space prior to the start of the event.

In our example VRExplorer event we asked participants to search for colored cubes with a letter on them and to compose these letters into a word.

When the group re-assembled we asked them to point at the correct solution word with their laser pointers.

Note that when you organize a scavenger hunt it should be playful and fun. We got feedback from participants that 20 minutes to search for 5 letters that compose the German word for flower ("Blume") was quite a stressful experience for the inexperienced participants and that they had no spare time - while we had originally intended, that the participants would use the leftover time from the scavenger hunt for an active break and networking.
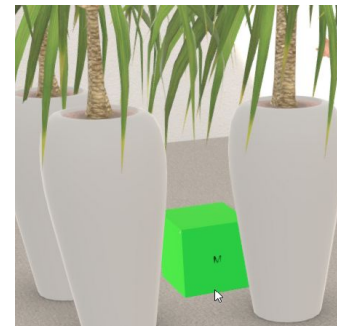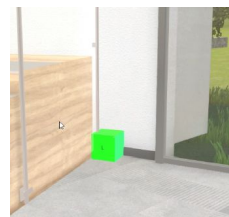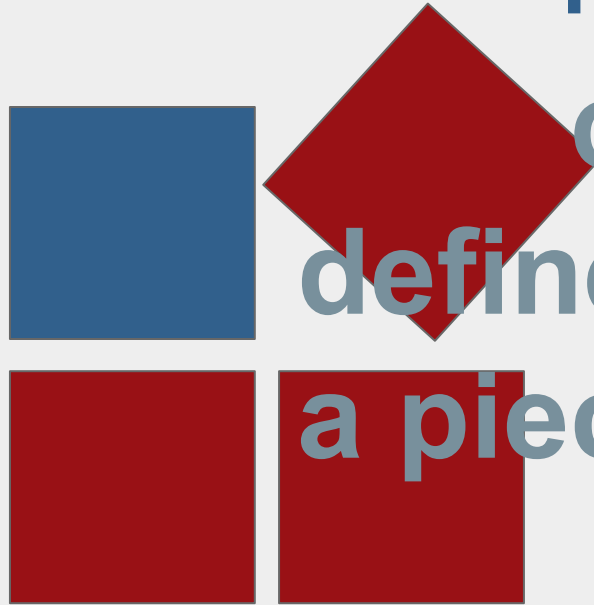
Advanced Teambuilding: co-creating a defined figure - or a piece of artwork

Teambuilding: re-build a given figure

If it isn't the first time for a team in 3D, and if sufficient time is available, an advanced form of team building can be used. The team can get the task to physically build something from 3D elements. Two basic paths are possible:

A) Rebuild-Task: Have a sample and ask the team to rebuild it as close as possible. Here is the instruction for this task (based on TriCAT):

- Form teams of 4-6 people
- Add a media board with instructions for each group and one with a stopwatch
- Enable the "Editor Mode" for participants (This is a TriCat function)
- The teams are placed near each other (in different audio zones, but with the possibility to see each other)
- Explain the task, e.g. to build the Eisenhower cube
- Start the Stopwatch (a timed activity creates urgency and focus pressure)

- **Have fun!** This is important – building in 3D is difficult for most people and as such it is important to expect faults and set a playful tone
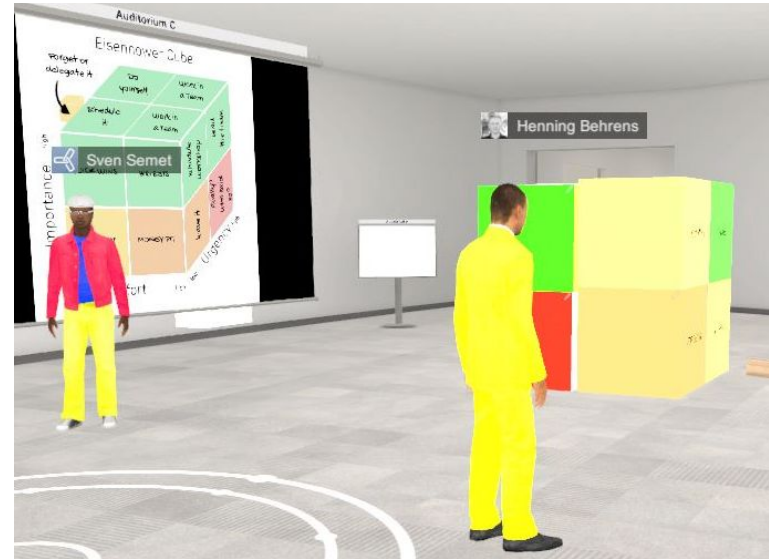
Teambuilding:
Create virtual artwork

B) Artwork / Fantasy: Have a theme and let teams build their interpretation of the theme. The detailed instructions are similar to above, but instead of setting a clear, measurable task the team is asked to ideate and improvise.

Some of our learnings:

- Teams need to actively talk in order to coordinate. The communication effort is higher than in real life. The relative talk time of the individuals can be observed and discussed in context with what makes successful teams. We recommend it as an exercise for teams to learn about team dynamics.
- We found that it is easy to lose sight of each other. As the field of view is smaller than in real life it is easier to overlook somebody during the teamwork. It requires active facilitation and inclusion to work as as a team.
- The task shows how "comfortable" people are with the environment and the avatar control. This task has a risk to lose people due to technical challenges. Facilitators should check on people that don't seem engaged.
- The exercise is advanced as it requires a level of comfort with the technology..
- Having to move around the artifact to get "perspective" creates further identification with the avatar / each other's avatars

Creation of "Fishbowl"
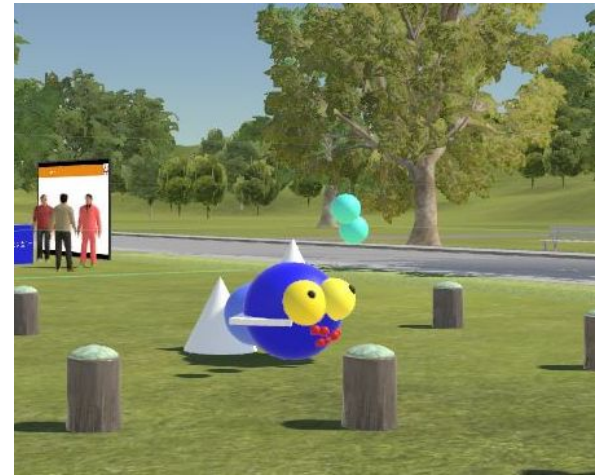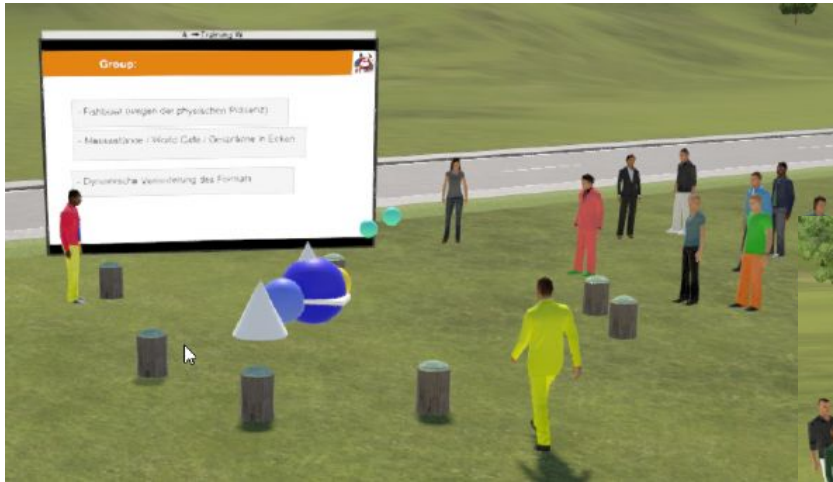
SCAN

WHY?
SCAN

SCAN is about collective intelligence. Every time you bring people together, you are making a tremendous investment - think about the hourly rate of everyone in the room added up.

To get the most out of bringing people together, you want to scan for their respective insights and wisdom.

The genius is in the room. In getting together and sharing diverse perspectives, we form a larger collective understanding of any situation. Obviously, diversity and diversity of perspectives are key especially in the context of uncertainty – as companies are slowly beginning to understand.

The idea of scanning is to go wide. Expand the field. Don't criticize or analyze at this point. Gather, gather, gather, nothing is too ridiculous or "wrong". At this stage, you want to get as much material in the processor as possible.

Comments & Ideas for Facilitators

- **Ensure that people feel safe to suggest even ludicrous ideas.** As a facilitator, you are the role model. Humor works great to disarm and allow for creative insights. Be a little extra silly.

- **Make sure you pay attention to the silent ones.** Either by having everyone write before talking, or through actively facilitating participants who are not speaking up, however is appropriate, make sure they are being heard.

- Especially people who are not yet comfortable in 3D worlds might not feel inclined to speak up – especially when others are dominating the experience. Gender and age might also come into play here, as gender and age are still slanted when it comes to computer gaming, so there are often different experience and comfort levels in these environments.

The expert
Talk

Before generating ideas, it can help to scan for trends or frame the context for the work the teams will be doing. For this, it helps to have experts offer insights on the subject matter. The 3D environment offers the opportunity to invite experts and have them present in front of the team.

The team can interact with the speaker by sharing applause and raising the avatar´s hands to ask questions. Discussions can evolve naturally.
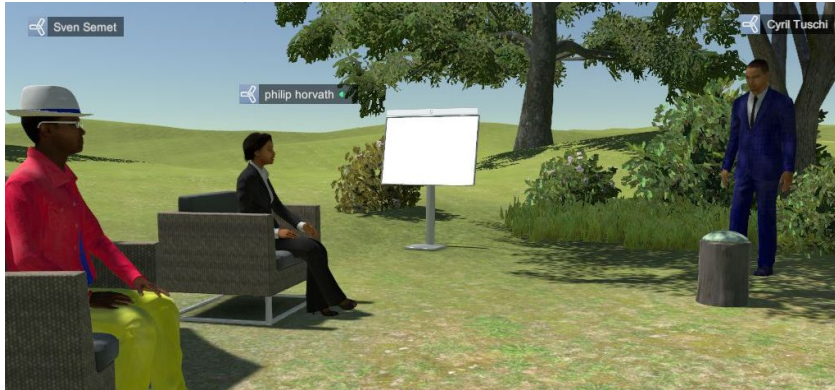
How & what to scan
brainstorming

The classique method to collect the ideas in the room is brainstorming in different variants.

Before you start with the brainstorming, consider that when in 3D, you are free to decide if you want to collect ideas in written, oral or video format. You can e.g. tape the session and replay it later to extract key ideas of a lively free discussion. However the use of classique brainstorming methods is possible as well.

There are two basic versions of written brainstorming:

A. Participants voice ideas and a facilitator notes them on the whiteboard

B. Participants write their own post-its on the whiteboard (this ensures, that silent voices are heard as well)

As in real life, we recommend version B where all participants are involved and active to write down their own ideas.

Because of the limited space on whiteboards in TriCAT and for easier interaction, we recommend to give each participant their own whiteboard during the brainstorming. You can have a look at all ideas as a team with a whiteboard walk or by bringing the content of all whiteboards one after another to one central media wall.

For groups brainstormings we recommend to use mediawalls or smartboards in TriCAT which can accomodate more idea cards.

Beyond classique brainstorming we have explored the use of the 6-3-5 method, where the ideation builds on previous ideas of other participants. A detailed explanation follows on the next page.

Example:
6-3-5 method

The 6-3-5 method is a popular ideation method where participants build upon the ideas of others. See a more detailed explanation on [Wikipedia](#).

Here is how we did 6-3-5 in 3D:

- Set up whiteboards in the room ahead of time (one per person ideally in a circle)

- Provide one key question for everyone

- Each person starts on one whiteboard, one person stays as moderator and timekeeper

- Announce the time for noting solutions to the brainstorming question (recommendation: 2 x as long as in real life, especially if tool familiarization is still in progress) and start brainstorming

- Each person adds 3 post-its (size of font matters) to the whiteboard

- Once the time has expired, each person moves on to the next whiteboard (e.g. clockwise)

- A new round of brainstorming starts, everyone tries to add solutions that build upon the ideas already existing on the whiteboard or can add completely new ideas.

When trying this exercise, we learned that more time is needed by participants to execute the task. We estimate between t+20% and t+100% to compensate e.g. for technical difficulties and adoption. Therefore moderators need to also keep checking on everyone to see if they are writing. If not we recommend to engage in a 1-1 conversation to find out if there are any difficulties.

After the 6-3-5 brainstorming the results can be looked at in a Whiteboard Walk and as well downloaded for further use in 2D.

Example:
Liberating Structures

A popular tool in creative collaboration that has emerged over the last years are *Liberating Structures*.

Per their website at http://www.liberatingstructures.com:

"Liberating Structures introduce tiny shifts in the way we meet, plan, decide and relate to one another. They put the innovative power once reserved for experts only in hands of everyone."

Essentially, Liberating Structures are a collection of tools that allows teams to connect and surface solutions that has been successfully deployed in real life in idea sprints, design sessions and even regular team meetings.

Many of these tools also work in 3D worlds, and because of spatial sound, the ability to mingle and move around as groups, much better than in video chats. We encourage you to **experiment** with these fun and entertaining tools and find your own adaptation into 3D.

Source: http://www.liberatingstructures.com/

BEFORE YOU FOCUS

BRE
AK

The Importance
of taking a break

Being in a virtual environment is tiring. Even more true in VR worlds with VR goggles that are heavy on the head. So make sure to take breaks!

Distinguish between active breaks, where participants stay in-world and have the possibility to mingle and bio breaks when participants step away from their device and leave their avatar as a "zombie". Some programs allow for a "sleep" mode to indicate that the user has stepped away.

Consider that taking breaks allows for important individual and group dynamics to take place:

- Individual processing of the learnings so far, letting the SCAN sink in. Making room for inspiration to hit (creating the Eureka Moment)

- One-on-one conversations away from the crowd to check in with other trusted partners, and allow for synergies from checking mutual understanding of the inputs so far

- Break activities, e.g. one-on-one sharing where participants find someone else and exchange with them their favorite insight from what they just learned, can elicit further collective insights.

FOC
US

WHY?
FOCUS

Expanding and ideas are great. In order to get to results, we need contraction. The FOCUS phase is about exactly that. Sharpening the tip of the arrow. It is about consolidation of information, distillation, and decision making.

There are different tools available for collective decision making. Be clear on the desired outcomes before trying to drive toward decisions. Sometimes you need unanimous decisions, sometimes you need to simply indicate preferences of direction.

There is already plenty of yes/no thinking in our world. Especially for creative paths forward, probabilistic thinking is a good approach.

Don't worry about "is this right?"

focus on "does it move us forward".

In the end, proof is in the pudding. Any decision is only as good as the testing of it in real life. So make sure you don't get stuck in a world of opinions.

Comments & Ideas for Facilitators

During the **FOCUS** phase, there are a couple of potential pitfalls:

People jump back to ideation

"Art is never finished, only abandoned." - Leonardo da Vinci

It is common for people to have more ideas during the focus phase. Sometimes it is indeed important to be willing to go back to the drawing board and start with a fresh insight before contracting toward decisions. As a facilitator it is a subtle dance to know when to jump on new ideas and when to find a different outlet for them. One important question is "Will it significantly change the next steps?" – you might decide this for the participants depending on your mandate, or have the participants decide this.

Overall, your goal in this phase is to bring people forward, so if possible, avoid going back to ideation. You can use a "Parking lot" whiteboard for ideas that come up during the focus phase to be dealt with later (assuming they don't significantly change your next steps). By capturing the idea, you don't just hold on to it, but also give the participant the experience of being heard and respected.

People jump to conclusions too quickly

The other end of going back into ideation is to jump to conclusions too quickly. Ensure that people have really thought about options and, if appropriate, summarize the scan for them again, focusing on the data points that provide the widest spectrum of what you collected in that phase.

You can also use scenarios from the scan phase and explore the decision against those scenarios, providing a playful way to test reactions to the potential consequences.

People get stuck in "who is right" games

Since most of us where educated in a fixed mindset, it is easy to fall into "who is right/wrong" games. It is important to remember that nobody has the whole truth. All we can ever talk about is our respective perspectives.

Remind people of the story of the Blind Men and the Elephant, when they get too stuck in their perspectives.

Helpful here is also the distinction between *agreement* and *alignment*. While teams might not agree, see if you can get them to align behind a common purpose, a common direction. Invoke the customer or other final arbiter of success for whatever project you are working on. They ultimately have the answer. Defer to them as the ultimate decision maker.

Consolidation & Distillation
Methods

Consolidation is about taking information from a SCAN phase and synthesizing it. This can be done by participants or the facilitator. Distillation is about getting to the essence. Here are a number of ideas how to proceed:

1. Facilitator Led

While teams are on a break, or to prepare a separate session, the facilitator reviews information from previous phases, and weaves them together into a narrative or summary. If there are polarities, they purposely exaggerate the positions (did we mention humor helps?). They then present these to the teams and let the teams improve on the suggestions from here.

2. Liberating Structure: 1-2-4-all

A simple Liberating Structure for consolidation is the 1-2-4-all method. Here, participants first work alone to come up with a synthesis of ideas, e.g. a purpose statement for a project. They then exchange and consolidate first in pairs, then with a synthesized statement as two pairs, and finally as a whole group (see http://www.liberatingstructures.com/1-1-2-4-all/). Spatial sound and audio zones allow for this to be more easily and dynamically accomplished than in breakout rooms or other video chat tools.

Two groups, consolidating the results of the brainstorming in their own audio zones (indicated by green lines on the floor).

Decision Making
Methods

Decision making is about collective alignment in order to allow moving forward. As mentioned above, decisions don't have to always be unanimous, nor do they have to be binary.

1. Voting / Dot Voting

A classic tool for decision making is voting. In 3D environments this can be facilitated in a variety of ways. From using virtual whiteboard stickies for dot voting to using tools like pointing with a laser pointer (less permanent, and better for quick check-ins).

Emoji-Feedback in AltspaceVR,

Picture:
https://altvr.com/introducing-the-event-tools-kit/

2. Applause, Winks, and Emojis

As a quick feedback tool, many 3D and VR solutions also provide participant responses like applause, thumbs up, winks and sometimes even emojis. These tools are great for quick check-ins, to gauge the mood of a crowd, or simply to invite interaction (so people don't check out).

3. Physical Constellations

One exciting opportunity of 3D and VR environments is the possibility of representing decision making in "virtual physical" space. By placing media items on the floor or in different areas of a space, participants can position themselves and their avatars as a means of "voting". This can be two dimensional, as in Yes/No questions, four dimensional as in matrices, or even multi-dimensional, e.g. when participants stand in front of a white board that they favor.
Seeing people move around in space makes voting a very social experience. Depending on the context, you can also encourage conversations along the way, which will further sort people.

81

ACT

WHY?
ACT

The Act-phase ensures, that the ideas that are generated during a meeting are documented and transferred into actionable items. You might e.g. want to fill a Kanban board with tasks for the next steps.

This phase is ultimately key in order to achieve the meeting's purpose. Check back on why you held the meeting, what answers (or questions) you have found, and what you want to do with them next.

This is about bringing virtual results back into the physical world.

After wrapping up the actionable items, close this phase with a check-out to conclude the event and give people a chance to reflect on their experience (this can be done via whiteboards or other asynchronous sharing).

Comments & Ideas for Facilitators

- In this phase it is important to close the loop from 3D back into the real world. Like in an on-premise workshop, where the facilitator typically creates a (photo) documentation for the team after the event, the facilitator needs to download whiteboards and screenshots during and after the event and merge them into their documentation.

- Note that while the ACT phase can wrap up a meeting in 3D, it can as well be a good idea to go back to 2D for the ACT phase - even the next day. It is not necessary to do all phases of the CONNECT - SCAN - FOCUS - ACT model in 3D.

- We recommend a wise selection of the appropriate tool. Especially collaboration on documentation is nowadays still often easier done in 2D than in 3D.

Your 3D experience is about to end

The important part of this final meeting phase is to translate the dynamics of the 3D event into real world activities. As with any other meeting, the insights gathered and ideas collected need to be translated into next steps.

1. To Do Lists

The classique way to handle this phase of meetings is with to-do-lists. If your 3D environment allows to share screen, participants can assemble to jointly define "who does what by when" in a table. Alternatively participants can fill the backlog of a Kanban board with their To Dos. This part of the meeting should be done jointly to make sure that all participants agree on the way forward.

2. Open Questions

If you have encountered difficult questions during the meeting, you might need to obtain more information in order to take next steps or make a decision. Experts might need to be consulted. Ensure that you assign follow-up tasks for these open questions and loose ends as well.

3. Wrap-up

Once the next steps are clear, wrap up the meeting with a short summary of the event. Pick up key ideas that have been voiced during the discussion and lead the discussion back to the initial purpose of the event. Refer back to "Starting with the end in mind".

For today, the stage is yours one last time. Use it wisely.

Check-out with the
Participants

Don't just log out and end the event with a click on the "X" in the top right corner of your application.

In your script, plan a little small talk time at the end and allow space in the last few minutes in which the virtual world can be explored. You will be surprised what ideas your guests come up with.

If you say goodbye as the moderator first, leave the virtual room through a door. Only then log out.

Use the game and let all guests leave the building in one go. True to the motto: "3, 2, 1, ... go! You can push and shove, nobody will be injured and it will definitely be a cool photo for the documentation!

Be creative even at the end and make the immersive experience perfect!

Check-out with the
Event-Team

Once the participants have left the environment, plan some time for the event team to check-out.

Share instant feedback and experiences, assign next steps, agree on what needs to be documented, downloaded, saved – and: don´t forget to celebrate your successful event together and to congratulate and acknowledge each other.

Individually, we recommend to plan an active "cool-down" phase and a phase of self-care after the event - you might not want to jump right into the next meeting.

Expect a high level of energy / adrenaline that nobody else around you in the physical world can understand.

APPENDIX

05

Thank you!
...and let's keep talking

When we proposed the idea of the VR Explorers in April 2020 to TriCAT, they immediately granted us their support. For one convincing reason: When TriCAT CEO Markus Herkersdorf welcomed us for the initial meeting of the VR Explorers in TriCAT, he expressed his hope to initiate a broader societal and cross-company discussion about the possibilities and constraints of 3D and VR. Markus encouraged us with regard to the idea of this guidebook and we trust, that this book contributes to the discussion. Let us know your thoughts, ideas, questions on 3D meetings and the book via our website VRExplorer.space.

As the VRExplorer project started as a voluntary project of a bunch of curious humans, our learning-journey would not have been possible without the support of TriCAT-Spaces.net. We thank Markus Herkersdorf, Lena Laschack and Hannah Korn both for granting us free access to the TriCAT-Spaces.net, for their support with technical questions or issues, and for their generous hospitality.

the TEAM

Kathrin Bischoff
Virtual Collaboration & Project Management Expert

I enjoy to actively shape digitalization and our future ways of life - by working with cutting edge technology and looking at it the human way.

I am a bridge builder between:

...tech experts and the broader public

...remote teams from across the world

...waterfall and agile teams

...yesterday and tomorrow

philip horváth
Speaker, Teacher, Advisor

Always exploring the edge of culture and technology, I worked with online classes, AI and VR in the late 90s and have been following their developments ever since.

My focus is on the human side of the future:
What new leadership skills do we need to succeed?
What interpersonal capacities do we require to collaborate in a fast paced semi-virtual world?
What kind of future do we want to create?

Henning Behrens
Digital & Virtual (3D) Expert

As a business psychologist, manager and entrepreneur I accompany organizations in the development of new learning and work cultures and, together with them, master the challenge of digital transformation.

As a trainer, moderator and speaker I have gained a lot of analog and digital experience and with my ecosystem I am in the comfortable position of creating virtual highlight scenarios.

Florian Purps
Project Management & Digital Expert

Curiosity is my main driver. I enjoy working in teams, exploring technologies and learning new things. I have gained a lot of experience in different 2D meeting formats.

In a changing world where technical development has been speeding up I think it's important to be open minded and try different things. At the same time it's important to stay objective and keep a critical view on those developments.

Sven Semet

Business Development Engagement Leader - Sales

LinkedIn

I like to get involved in innovative projects in learning and collaboration. As a thought leader I'm involved in customer projects as an expert for AI to increase efficiency and performance.

The digital transformation and especially the use of AI will change the world enormously within the next few years. I would like to be a part of this change and make my contribution especially in the field of humanity. I believe learning and development is the key for a better future.

Harald Schirmer

Manager Digital Transformation & Change

harald-schirmer.de

I am passionate about learning changing and creating - desperate for new technology and curious about our world evolving in the digital age. #Continental #WEwins #BeTheChange

Having a strong focus on people and culture - respect, attitude, working on eye level and new forms of engaging leadership. I love to work in physical and virtual (specially global) teams. Diversity is in my eyes a success factor for building sustainable answers in a complex world.

Erik Wiegard

Digital & Virtual Expert, (Virtual) Coach

LinkedIn

#Innovation # Digitalization # NewWork #gernperdu #zukunftsaktivist #rebel #querdenker #Innolizer #WvSCBerlin

Oliver Pinkoss

Project Management Expert & New Work Evangelist

LinkedIn

RETHINKING THE MIND | interested in #newwork, #collaboration, #digitaltransformation, #wol, #agile #methods, #liberatingstructures and real life!

Oliver designed our VRExplorer Logo and was the inspiration for the style of this workbook.

We can support you with
creating your event!

Creating an immersive transformational experience for participants that leave them inspired and feeling accomplished...

That is what our events are all about!

Interested in crossing the bridge into 3D worlds?

Have an event and innovation sprint that could benefit from the opportunities of 3D worlds?

Ask us!

connect@VRExplorer.space

http://VRExplorer.space

Imprint

The VRExplorers are a network community of individuals, that have co-authored this guidebook in summer 2020.

Authors: Kathrin Bischoff, philip horváth, Florian Purps, Henning Behrens, Harald Schirmer

The free contents of this book have been created with great care - in case of any questions on the content please contact: connect@vrexplorer.space

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Link Collection

Tools

- https://tricat-spaces.net/
- https://altvr.com/
- https://hubs.mozilla.com/
- https://www.virbela.com/

Lessons Learned from various 3D events:

- Kathrin Bischoff on Social VR/ Educators in VR virtual summit: https://www.linkedin.com/pulse/pushing-borders-socialvr-kathrin-bischoff/

- The https://educatorsinvr.com/ are a vivid group of people discussing and experimenting around VR. We recommend to visit the community page for lots of further information. In Februar 2020 they held a fully virtual summit, their Lessons Learned can be obtained here: https://educatorsinvr.com/2020/03/08/behind-the-scenes-of-the-educators-in-vr-international-summit/

- Twitter Thread on Laval Virtual Conference in spring 2020 with great insights and pictures: https://twitter.com/kentbye/status/1252891755596230657?s=19

- https://voicesofvr.com/ by Kent Bye, especially the lessons learned on a conference in May 2020: https://voicesofvr.com/912-virtual-conference-lessons-learned-from-ieee-vr-2020/