Business meetings and travel – from physical presence to virtual reality and maybe back again!

A case study of business meetings in the metaverse platform Horizon Workrooms

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Abstract

How is the relation between business travel as physical presence and digital meetings? How can the metaverse platform, Horizon Workrooms, contribute to business travel? Benefits and challenges! This is the main question for this thesis.

It's the era of digitalization in general and the corona epidemic reinforced the digital development, not least meetings online. Horizon Workrooms serves as an example of one of the newest digital meeting places in form of virtual reality.

The question is examined through a theoretical approach and through an experiment with 5 participants meeting in Horizon Workrooms and interviewed about the experience and their relations to business travels in general.

What is presented here is the bouquet of themes that shed light on the many aspects and concerns involved in digital and physical business meetings. The themes are stretching from the very big and fundamental question about climate and sustainability; over business like questions concerning the tourism industry; if, how and to what degree digital platforms – and in this case, Horizon Workrooms – can contribute to business meetings and relations; to the more detailed questions concerning pro and cons in relation to be on physical business travel including the time spending and costs and how the concrete meeting with business partners contributes in results, leisure time away and family life issues.

Keywords: business travel, business meeting, virtual reality, sustainability, metaverse

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Introduction

The Business travel sector has grown rapidly over the last decades in relation to globalization and geographically expanded markets, in terms of a growing numbers of multi-unit companies and new emerging trends such as networking, outsourcing and work in project teams (Gustafson, 2011). Many organizations now work from several sites in which the hierarchy is flattening and employee independence is increasing. These changes are likely to increase the need for communication both internally within the organisation and externally with business partners (Aguilera, 2008). As an alternative to the continuing growing costs of business travel there has been an interest in how information and communication technology (ICT) could lead to reductions in business travel. This interest was already sparked in the 1960s, where an idea of a combination of telephone and television could act as an alternative to business travel (Geels, & Smit, 2000). In 1993 when the internet was publicly introduced, it provided the infrastructure to facilitate information sharing through mediums such as the email, sound, pictures and later video (Lyons, 2002). Since then live video communication technology, which provides communication options, including videoconferencing services in relation to and connection with both conference rooms and mobile terminals globally, has developed. Moreover, it creates the ability to show, share and edit documents between several people remotely (Denstadli, Julsrud, & Hjorthol, 2012).

More recent research indicates the potential of new usage areas of the internet, as the positive effects caused by digital travel experiences during the pandemic, were seen within the use of VR (Virtual Reality) and AR (Augmented Reality) (Cai, Ma, & Lee, 2020. ; Li, & Guo, 2021). Multiple authors state that both VR and AR experiences creates a more emotional connection to a destination and motivation to visit a destination, than traditional types of media (Skard, Knudsen, Sjåstad, & Thorbjørnsen, 2021; Chen, & Yao, 2021). These developments in technology introduce the idea of studying, how virtual communication might create a need for as well as discourage travel.

The internet's envisioned future is called the metaverse. A future beyond screens, into the digital domain of avatars, games, learning, commerce, and almost everything we do in real life.
The metaverse, in its current form, is a virtual environment, which you can enter via extended reality devices. The fundamental goal of the metaverse is to create a space to collaborate without physical borders.
In the battle for this envisioned future, one of the world's tech giants, Facebook, has renamed itself Meta and spent billions of dollars in an attempt to dominate the metaverse in the future (Sant, 2022).

With the Covid–19 pandemic, the tourism industry, and thus business travel experienced major changes, in terms of limitation to available destinations and thus cancellations of

business trips.

This recent time of isolation, put the use of technology on a test, and while most people have returned to their prior use of travel, the period has created an extended use of telecommunication and remote work, and has become a new normal in digital everyday life.

Despite the damages caused by Covid-19, brief, favourable effects, significant decline in NO2 concentrations globally (ESA, 2020) were seen and the human impact on natural ecosystems and wildlife was dramatically decreased (Corlette et. Al, 2020).

Although NO2 emissions, pollution and other anthropogenic impacts on climate and wildlife will reverberate, the aforementioned effects put greater pressure on companies to act more sustainably. At the same time a new term appears in the language, e.g. Sweden has experienced the term *flygskam* ("flight shame"), which describes the negative feelings associated with the climate impact from flying (Wolrath Söderberg & Wormbs, 2019). Another study found that most companies with a lot of travel activity would like to pay the extra cost associated with flying with more biodegradable jet fuel (Godning, Andersson-Franko & Lagerkvist. 2018).

Horizon Workrooms are examined through an experiment with 5 participants having meetings in the platform. They are observed and interviewed about the experience and their relations to business travels in general and qualitative data are derived from here.

On this basis the following research question is formulated:

How is the relation between business meetings as physical presence and digital meetings? How can the metaverse platform, Horizon Workrooms, contribute to business travel? Benefits and challenges!

By *meeting* in this thesis is understood all kinds of communication between two or more parts. This includes phone calls, text (e-mail/text messaging/other types of texts with a receiver), digital meeting platforms (video based, e.g., Skype, Zoom and Teams; AU and VR platforms), physical meetings/traveling.

Abbreviations

AU Augmented Reality
VR Virtual Reality
HW Horizon Workrooms
ICT Information and Communication Technology
SME Small Medium Enterprises

Methodology

Introduction

This chapter will explore and discuss the methodological choices made during the study process. First I will present the structure of the thesis, followed by the conceptual underpinning and methods.

The study is based on two main sources: A review of relevant literature and a case study including 5 participants having a business meeting in a VR setting, observed and interviewed before and after the experience.

After reading the pertinent literature, I found that research examining digital communication technologies hardly ever include end users' perspectives on the usage's actual effects. I made the decision to approach this project differently from other scholars that are interested in virtual reality and digital communication tools (e.g., Benyon, et al., 2013; Roby, 2014; Cai, Ma, & Lee, 2020; Li, & Guo, 2021; Skard, Knudsen, Sjåstad, & Thorbjørnsen, 2021; Chen, & Yao, 2021).

In order to gain a more in-depth understanding of the environment and atmosphere created in the virtual space of Horizon Workrooms, I chose 5 participants to be part of an experiment, having meetings in the virtual reality platform, Horizon Workrooms. They were observed, interviewed about the experience and there use of business meetings/travels in general. I accepted the participants' views and statements as valid and in the way that what they expressed was what experienced and thought. This case study is the main source for empirical data collection. In order to help readers and other researchers understand the findings and conclusions, I will use this section to clarify my methodological decisions.

Structure of the thesis

To give an overview and frame the study the structure is outlined here.

The introduction outlines the main question of the thesis.

Methodology
Research strategies

Background goes through the historical development of the web and thereby the options for meetings in the digital world in order to set the scene for the virtual reality experiment.

Literature review lines up the theoretical findings that can shed light on the main question. This study is going into a new field and the issues presented contribute to different aspects of research question. It is a bouquet of themes, which aspire to give the background for the discussion of benefits and challenges regarding digital meeting solutions vs. physical business travel and physical presence. This raises questions about business travel in relation to the sustainability issue, the cost effectiveness, meeting platforms in relation to purpose,

leisure time on travel (bleisure). These themes are guidelines for *the empirical findings* and *the discussion.*

Empirical findings
The empirical findings are based on an experiment with the VR platform, Horizon Workrooms, because it is some of the newest digital meeting platform. 5 participants are having meetings in the workroom. Interviews not only shed light on the experience, but question the participants' experiences with as well digital solutions in business as their business travel in real life with the purpose of contributing to the themes discussed in the literature section.

Discussion
The themes from the literature section and the statements of the participants (the empirical findings) are brought together here, trying to draw some conclusions and/or give some qualified bids to the problems in question.

Conclusion

Introduction to the Research Design

To provide a clear understanding of the strategy used to gather the necessary data, the research methods and case study, will be discussed. Data collecting methods will be described. Afterwards will the process of data analysis will be examined, followed by a discussion of the thesis reliability, and found limitations.

This thesis can be characterized as qualitative research that adheres to an exploratory methodology, uses relativist ontology, a subjectivist epistemology, and is produced under the social constructivist paradigm. This chapter elaborates on how this is shown in the research and how these choices were made.
This section explains the methodology in detail, from problem formulation to data collecting and conclusion. The initial problem formulation of the thesis identifies the main topic of the project. The goal of this study is to understand how virtual reality could impact business travel hence creating more sustainable practices through an application such as Workrooms by Horizon.
The literature review provided insight of knowledge from the literature. The analysis of the literature included the following topics: digital tourism, virtual reality in tourism, digital communication tools used in business industry, place and sustainability and the impact on the environment, and in the context of business travel. Afterwards, an interview guide was produced, and the experiment designed. Then were potential interviewees identified, selected, and invited to participate. The data for this thesis came from various sources e.g., webpages, books, articles, conferences, seminars and personal virtual reality observations, participant observations during the experiment, and interviews with the chosen participant before and after the experiment.

These data were further analysed and discussed to reach a conclusion.

Philosophy of science

The qualitative exploratory research is focused on business encounters in Horizon Workrooms in virtual reality. The main goal is to understand the opportunities and challenges this tool provides. Can it support or replace the existing travel practices for the business travellers, and thereby help reducing the high emissions cost correlated to business travel.

Ontological and epistemological considerations

The philosophical theory *ontology* explores the nature of life as well as the foundational concepts of existing entities and their connections (Kivunja & Kuyini, 2017) by questioning "how things really work" and "how things really are" (Guba & Lincoln, 1994:108). In contrast, epistemology is the study of the world, through engagement with/participation in/modification of it. By observing how participants understand a social world and use questions as what is regarded/should be regarded as acceptable knowledge? (Bryman, 2012).

Note that chosen the ontology must be considered since ontological beliefs limit the responses to epistemological questions (Guba & Lincoln, 1994).

Social constructivism is the overarching scientific theory used in this thesis, which means that the learner constructs knowledge through understanding and interpretation of social interaction (Arvedsen, 2018).

I interviewed the participants about their perception of the interactions in the virtual space and how it could influence their travel decisions in future. Furthermore, the social constructivism approach was chosen for this study because the experiment was focused on the ability for businesspeople to collaborate in the digital space. Dialogue is a key component of collaboration, which involves several people exchanging opinions and producing new knowledge (John-Steiner et al. 1998).

I attempted to assess these facts without extrapolating and was conscious that the responses provided by the participants would always contain a subjective truth. But they give important information and contribute to the problems discussed. Their statements are valid in the respect, that they are based on their experiences with own business travels and the Horizon Workroom meeting.

Furthermore, Scotland (2012) points out that each researcher brings their own set of perspectives and experiences to the study, and as a result, they all agree that elements like educational attainment and personal history may affect the study subject, research design, and data interpretation.

I had acquired some knowledge in the field of digital communication before this study during research on virtual reality, sustainability, and economy. The acquired knowledge directed the focus of the study towards more sustainable travel decisions through virtual reality. During the initial research, I found indications of both personal and economic

benefits from the use of virtual reality that could have a potential in the development of more sustainable travel practices.
Furthermore, the study included the meaning of place, shaped by subjective realities from each of the business travellers' views on the destinations they visited and how their lifestyle choices affected it.
Interpretivism stands in contrast to positivism and holds that reality is subjective, socially constructed, and a composite of multiple perspectives. Through this lens, research is inherently shaped by the researcher, who brings their own subjective view of observed phenomena based on their personal (Sauders et al. 2016). As a result, the interpretative paradigm is used to frame the study and was demonstrated in the interviews with the participants as they shared their points of view regarding thoughts and values as the basis for their responses. The answers were consequently based on human perceptions rather than on evidence that was supported by science.
It is important to understand that my interpretations of data collection, participant selection, theories used, and questions asked, have an impact on the conclusions discussed and presented in the thesis. It is notable that this method can create bias as both I and the interviewees contributed to the creation of the reality and thus the interpretation of it.

Methodical considerations

Methodology reflects on "How can the inquirer (would-be knower) go about finding out whatever he or she believes can be known?" (Guba & Lincoln, 1994:108).
The study's ontology and epistemology have a determining influence on the methodology questions that can be answered. The hermeneutic dialectic method is offered for social constructivists (Guba & Lincoln, 1994).
To produce intricate and informed frameworks, the hermeneutical and dialectical methodologies are applied (Guba, 1990). The hermeneutic methodology of the thesis is demonstrated by the attempt to clearly interpret the data obtained.
The research is not only based on interviewees, but also supported by fieldwork observation and virtual visits to similar digital spaces. Moreover, the inclusion of a wide array of literature has helped to gain a better understanding of the impact of business travel. I thereby strived to make a difference between my assumptions on the topic, the answers given by the participants, and the reality of business travel in the virtual space.
The dialectic technique involves opposing and comparing established individual constructions so that each person can assess and accept their own perspectives (Guba, 1990).
All the participants have different ways they relate to business travel activities, for instance, some participants had their business travel activity as a priority to gather new external business opportunities, while other participants just used business travel as a need to comply with internal business requirements. Dialectics are therefore used in this thesis to look for parallels and differences in the material. by contrasting and analysing the data and

looking for recurring themes. The discussion section follows with a presentation and analysis of the discovered patterns.

Research methods

Qualitative approach

A qualitative approach is employed as the main research strategy.
The primary goal in this study was to use a qualitative method to better understand business travel in a sustainable perspective and see if a virtual space could impact travel decision among business travellers from Denmark.
Qualitative data - such as interviews, recordings, and observations - is used to investigate and explain social processes (Bryman, 2012), as the aim of this study is to obtain a deeper understanding of the topic.
The qualitative approach allowed me to focus on the respondents' interpretations and perceptions while also making observations throughout the fieldwork.
Therefore, I was looking for varied viewpoints on virtual reality and different types of business meeting habits in Denmark. The research methodology must be able to capture a variety of human views, wants, and conceptions because business meetings/travel and virtual communication are essential study components. The qualitative approach is therefore thought to be the most suitable for this thesis.

Abductive approach

The abductive logic necessitates switching between deductive and inductive thinking. Were a deductive process moves from theory to observational analysis to test specific hypotheses because it is based on the idea that theory is created on the first type of evidence, whereas an inductive process begins with empirical study and concludes with theoretical findings (Saunders et al., 2016). The abductive methodology provides additional flexibility by allowing for adjustments in the study process as a result of unexpected empirical findings or new theoretical ideas (Dubois & Gadde, 2002).
I had a prior research-based understanding of virtual reality and sustainable tourism when I started this project. Afterward, I looked for further research and theories on specific subjects related to digital communication and business meeting. I therefore entered the field with particular presumptions and ideas. However, as I was researching and writing the thesis, I came across several novel and surprising facts that compelled me to change my approach and use the abductive methodology. These facts included first-hand accounts of utilizing virtual reality, creating the experiment, and conducting interviews.

Exploratory approach

According to Saunders et al. (2016), an exploratory study is useful for clarifying a problem or phenomenon whose exact form is unknown. Exploratory research starts with a broad focus and narrows as the study goes on, moreover, it does also benefit from flexibility and adaptability. Due to the nature of the fact that there is an absence of academic research

within the field of business meeting in virtual reality, this study has no other previous practical methodology to follow.

These abductive and exploratory approaches showed their relevance as the study was 'forced' to get an extra focus. Off course, these approaches can be a bad excuse for not having a strict research strategy, but in this case I found, as a result of the ongoing studying process, that an extra dimension should be added.
During the study and after having done the empirical experiment and data collection, I realized that business meetings in Horizon Workrooms might not be the best tool to 'lure' people from physical business travel into the digital space. Therefore the light moved towards examining business meetings in general including all kinds of digital meeting opportunities as well as the physical meeting, which can include travel. So, the research pointed at finding out what the capabilities/potentials the different meeting forms have in relation to the purpose of the meeting. This might give an idea of when it is appropriate/necessary to have physical meetings/travel, knowing that it off course in practice always is a blurred field, depending on costs, time spending, the company's climate policy, and the climate legislation etc. The Covid-19 period gave the best possible solutions given the actual conditions.
Therefore the problem definition changed along the way from mainly focusing on the potential of HW to a broader focus on the variety of business meeting opportunities.

The Case Study

The case study method was chosen for this research, as the case of business meetings in HW is explored. This gave the opportunity to both get specific and in-depth knowledge about how actual business meetings in HW works. By using this method, I was able to be rather flexible in terms of the topic, data-gathering, and data processing. Gerring (2014) mention that a case study is generally a piece of writing that focuses on a particular illustration of a larger important topic.

The case

As stated in the introduction business travel has become a growing part of global business development, and thus a growing expense. The financial challenges associated with business travel has been dealt with in an ongoing manner, ever since the 1960´s (Geels, & Smit, 2000). When the Covid-19 pandemic forced governments to restrict people's movement, and thus business travel, there was a rise in the use of in the use of information and communication technology. Products as Microsoft Teams and Zoom experienced a rapid user growth during that time.
With the global lockdown in place, headlines and photos around on the Internet and social media sites, depicting the globe as an unlikely beneficiary of the Covid-19 outbreak. As manmade activity has slowed, nature appears to have pressed the reset button, regaining the spaces to repair itself. Despite influencing many aspects of human life, the Covid-19

pandemic spread out exponentially and had a rapid impact on other global resources. This global epidemic had profound implications for the way humans interact, interpret, manage, and protect global biodiversity. According to reports, human impact on natural ecosystems and wildlife has decreased (Corlett et. al. 2020) moreover, did this broad limitation on vehicular mobility and lockdown reduced transportation emissions significantly and reduced industrial and household heating (Lau et. al. 2020).
When the Covid-19 restrictions ended, travel activities grow again, and while business travel only has reached 50% of pre Covid-19 highs in June 2022 (STR, 2022) does IATA (The International Air Transport Association) predict overall travel to exceeding pre-COVID-19 levels in 2024, and international travel in 2025 (IATA, 2022).
The 19th august 2021, Meta presented "Horizon Workrooms" as an reimagined way for remote collaborations, using virtual reality in a new virtual space called metaverse which is designed to eliminate remote work culture in a digital way (Oculus, 2021).
So, to me it was obvious to test if this new platform could make a difference in relation to the problems mentioned above.

The area of the field - VR platforms

In this subsection I will frame the content studied and give a short introduction to relevant virtual reality platforms.

Virtual Reality has gained a substantial number of users in the game focused platforms. *Roblox*, e.g., is an online gaming and game production platform that has evolved into a Metaverse platform that provides players with a wide range of virtual experiences (XR Today, 2022).
Besides the aforementioned platform, major companies as Microsoft and Meta have created metaverse worlds.
Meta has created Horizon World that concerns all we do in our daily lives.
Meta appears to be attempting to initially create a substitute (virtual) reality. Things may not be as fancy as the trailer suggests, but it's on its way (Oculus. 2022).
Microsoft has created a similar world, AltspaceVR, where you can hold a party, host a meeting, and do a lot more social interactions. People can either organize and host events or attend them as guests. There's also a public AltspaceVR calendar that lists event details (time, date, etc.).
AltspaceVR is completely free to join and anyone with a suitable device, such as a standard Windows PC or a Mac can access the platform. A more immersive experience is available using a VR headset.
Moreover, Microsoft has created Mesh, a cross-platform collaboration tool designed to close physical gaps. To experience Mesh you need a HoloLens device, but it can also be accessed via Mesh-enabled apps on cell phones, PCs, and tablets with some limits.
Microsoft recently announced integration in Mesh for Teams to address Meta´s Horizon Workrooms.

Both are offering virtual workspaces that allow for efficient remote work and prevent video fatigue in remote meetings.
Instead of sitting erect in front of the webcam, you can activate your avatar.

Microsoft hopes to recreate your hand movements and facial expressions in future upgrades, to avoid a boring animated character. The interactions will be lifelike depending on the device. In comparison to a smartphone with fewer sensors and cameras, a HoloLens is an ideal device for experiencing virtual worlds at their most immersive level (Microsoft. 2022) while Metaverse projects, Workrooms & Worlds, require Oculus VR headsets.

The platform of the case study - Horizon Workrooms

Workrooms is a virtual meeting room that enables co-workers to collaborate from any location with an internet connection.
It is a room where one can have expressive dialogues as you feel you are in the room together by a spatial sound design.
When you join a meeting in Workrooms, you join as an avatar, that you have designed prior the meeting.
Being in the meeting room you can use a wide array of tools, as in a physical office.

Computer and keyboard: Workrooms are a mixed reality experience, enable usage of a physical desktop computer and compatible tracked keyboard into the virtual room. Enable one to take notes during meetings, sharing files and screen with colleagues.

Virtual whiteboard: Workrooms offers infinite whiteboard space to sketch things out together in real time. Use the controller like a pen, either on the physical desk or on the whiteboard.

A Configurable Room: The room's seating layout can be changed to match different needs, whether it is collaboration, conversation, or presentation. The whole room scales up and down to fit the size of participants (Oculus, 2022).

Picture 1. HW presentation mode (Oculus, 2022)

Workrooms beta version 1.4 was released in May 2022 and was used in the experiment for this project. This version introduced the use of Post it notes, a lectern for presentations, extra options for office layout and a new city, country and beach environments was added. The selection of settings and other details regarding the experiment itself will be evolved in the next section.

The HW experiment

I wanted the virtual experiment to recreate a meeting that was as close to reality as possible to the participants' actual experiences with business meetings. As I had learned through interviews with the participants ahead of the experiment, factors such as new people and new places were mentioned.
Therefor the participants first meet each other in the virtual space.
When they arrived, they were introduced to the headset functions, and their tasks, create their avatar and then enter the meeting room.
The avatar was reset between the meetings, so each of the participants had the same point of departure in the creation of the avatar.
The meetings were one and one. I could partly observe the meeting, both by eavesdropping and watching the meeting on my phone that was connected to one of the headsets.
However there were multiple drop outs and the sound delivery wasn't stable. After the meetings the participant met each other in a new room, where a final interview took place.

Data Collection

Primary data

Consisted of both fieldwork observations and different forms of interviews

Fieldwork and observation

After selecting the topic for the thesis and prior to creating and designing the experiment, I tested different virtual reality applications using the Oculus goggles, which gave me insights in how users use the technology in terms of communication, and when I first had tried the Workrooms by myself, I imagined how an experiment could enable a test of the technology. This knowledge was used to limit the experience and thus the experiment and in terms of creating an experience that all the participants could participate in.

On May 24th when the experiment was carried out, I both helped and observed the participants getting ready to enter the virtual room, using the controllers and the computer and whiteboard during each of their sessions. It was an overwhelming amount of impressions that occurred while I was doing the transcription of the material from the day.

Interviews

Semi-structured interviews were used to gather most of the empirical data in the thesis. According to Saunders et al. (2016) Semi-structured interview is frequently related to qualitative research and were therefore used to gather most of the empirical data in the thesis.
He states the necessity to have a list of questions ready to ask during semi-structured interviews, although they may be used different from one session to the next.
Therefore, a rough outline of essential questions was made, and later used in the telephone interviews with the participants prior to the experiment. Moreover, an actual interview guide was written and used on the day of the experiment, both prior to and after the experiment itself. The topics that were developed from the literature, guided the writing and the grouping of the questions. Semi-structured interviews were most appropriate for this qualitative study since it permitted me to leave out questions that were irrelevant to the participant or that they had already explained about in advance. This strategy is intended to get the interviewees´ subjective opinion about a certain event or issue. To fully examine the study's issues and goals, it also enables one to add extra questions or if needed directing the conversation towards certain areas and rearrange the order that the question were asked (McIntosh & Morse, 2015).

The phone interview promotes effective improvisation in the conversation (Saunders et al., 2016). At first the participants were interviewed over the phone; next participants were interviewed during the day in a face-to-face setting. This face-to-face interview provides unconstrained answers. This interaction with the participants, provided an opportunity to study their facial expressions, movements, and tone of voice (Jennings, 2005).
The phone interview and the interviews prior the experiment lasted between 15 and 30 minutes, depending on the schedule. The interviews after the experiment lasted between 30 minutes to an hour.

All of the participants were introduced to the interviews' purpose. To maintain the conversational flow during the interviews, the data was recorded using an audio recorder, as they all gave their permission to be recorded for their usage in this thesis, while some wanted to be anonymized in the actual thesis. In doing so, I have strived to act responsibly throughout the presentation of the data (American Anthropological Association 1998, p. 2).

The taped interviews were then converted from an audio file to a written document by transcription, seen in Appendix 1, 4, 5, 6.

Selecting interviewees

In terms of testing the HW, I had decided to find active business travellers.
I was choosing people for in-depth interviews using purposeful sampling, an iterative process that aims to increase the depth and complexity of the data to address the research question (DiCicco-Bloom & Cabtree, 2006).
The selection of participant was based on search within my broader network, explaining my thoughts about the project to different people in different places, creating excitement about the ability to test modern tech and participate in a thesis paper. The fact that I needed the participants to be able to join the experiment at the same time, was another logistic challenge, that I had to embrace. I ended up with 5 participants, who all were using business travel as a major part of their professional life, and who had non to little prior experience with VR and were able to participate in the experiment.
They are varying in age from 30-60 years and in gender.
They are, though, *not* a representable sample of business travellers. They are to a certain degree the same type of 'office workers', although they are working in different fields. Other business travellers could be manually working people like truck drivers, craftsmen, or people in the shipping business. So, according to good methodological principals, it must be underlined, that the statements from the participants are not valid answers to the themes raised. They do, though, give important information and contribute to the problems discussed. Their statements are valid in the respect, that they are based on their experiences with own business travels and the Horizon Workroom meeting.

Participants:

Name, age	Tittle	Industry	Family	Travel days pr year
Alexandra, 37	Consultant	SaaS	Mother of one	20
Daniel, 46	CFO	Medical	Father of two	40
Joseph, 41	Senior Manager	Banking	Father to be	50
Mathias, 35	Freelancer	Film	Father of two	25-50
Michael, 52	Senior Consultant	Engineering	Father of one	100

Table 1. Participant data

As some participants has required to be anonymized, they are all only entitled with a suggestive first name, and their profession has been categorized in broader terms, to provide what was estimated as important knowledge for the readers of this thesis.

Ethical considerations regarding the participants

In terms of the rights of people who become the subject of research or who are impacted by it, ethics refers to the standards of behaviour that should be followed by researchers (Saunders et al., 2016).
I incorporated ethical principles as respect for integrity and objectivity and respect the privacy of the participants and asked for consent prior to their participation and ensuring the confidentiality of data and maintenance of anonymity.
These codes of ethics, elaborated by Saunders et al. (2016), are intended to discourage unethical behaviour.
These ethical guidelines were used before, during, and after the interviews, as well as in the project writing and analysis of date. The participants were therefore informed that the information acquired during the sessions would be used in the research project. Additional, each of the participants gave me permission to record the interview. It was decided to transcribe all material and keep the parts that the participants not wanted to be public in the separate appendix file and as mentioned above the participants were anonymized to respect their wish.

Data analysis

The interview transcripts (appendix 1,4,5,6, in the attached document) were analyzed through coding. Coding is the three-step process of examining the data that has been collected and labelling the elements that stand out or may be connected to prospective theoretical concepts. (Bryman, 2012).

First, I read the interview transcripts several times during the open coding stage to see any recurring themes or comparable language. The value of physical presence was one of the themes I identified at this point, as evidenced by statements like "create a bond, so that you trust each other," or "it's a part of my job, having the human contact, and securing my customers feel protected."

Second, the key themes were then identified by connecting and categorizing the main ideas that had already developed during the second stage, axial coding. I was able to identify the themes of digital usage and virtual reality experiences in this context and how they relate to the main issue.

Finally, a core category was selected, representing the essential idea, around which related concepts revolve (Stuckey, 2015). As the result of coding, I was able to categorize the data in the themes presented in the finding section.

The scientific value of case studies.

An old discussion in social sciences is about getting valid data. In this section I use just one source, Bent Flyvbjerg, as he pinpoints the central issues and arguments on the validity of case studies, claiming that case studies have (or can have) a great scientific value in themselves, and that quantitative data often are not more valid. I will go through the '5 misunderstandings on case studies' and relate them to my study.

Case studies are often given very little research value in themselves in science and research. The positivist paradigm tells us that quantitative data give the scientific validity. This said very briefly without nuances. This assertation is among other questioned by Bent Flyvbjerg (2006) in the article "Five Misunderstandings About Case-Study Research". I will take us through these five 'misunderstandings' and relate them to the case study in this thesis.

"Misunderstanding 1: General, theoretical (context-independent) knowledge is more valuable than concrete, practical (context-dependent) knowledge." (Ibid. P.221)
Researchers work on basis of many concrete cases in their field and are connected to context-dependent knowledge.
"Social science has not succeeded in producing general, context-independent theory and, thus, has in the final instance nothing else to offer than concrete, context-dependent knowledge. And the case study is especially well suited to produce this knowledge." (Ibid. P. 223)
"Predictive theories and universals cannot be found in the study of human affairs. Concrete, context-dependent knowledge is, therefore, more valuable than the vain search for predictive theories and universals" (Ibid. P.224).
These arguments can be seen in extension of the abductive approach, as it is our knowledge from several more or less similar cases that leads us to qualified hypothesis and the assessment of the results of the case studies. Related to my case study this can be said: The five participants all found that the real person/personality was missing in the avatar setup in HW. This is compared to experiences from the physical life and other digital meeting experiences, so obviously it is reasonable to assume that big scale studies and quantitative questionnaires would change that. It is, in this case, enough and sufficient data.

"Misunderstanding 2: One cannot generalize on the basis of an individual case; therefore, the case study cannot contribute to scientific development." (Ibid. P.221)
Flyvbjerg claims that it depends on the case chosen. A well-chosen case can shed light on a matter as well as or better than quantitative studies. The choice of HW, in my case, is an attempt to choose some of the newest digital technology assuming that it might bring us so close to a replacement of the physical travel as possible seen from a sustainable view. Even though it might not be the final solution to the travel challenge, I will still claim, that based on the optional technologies, it is a good and representative choice. No other actual digital meeting platforms would have given better answers. But, as mentioned, the relative lack of

success for HW, replacing travel, have in the research process brought us to examine the capabilities of other platforms. Not only to replace travel but to see, what they are capable of as meeting tools to get wiser in general and for further research. Moreover, the participants chosen had no or little experience with VR and were all active business travelers, will I claim, they were an appropriate choice, as they would provide insights that might support the use of HW.

"Misunderstanding 3: The case study is most useful for generating hypotheses; that is, in the first stage of a total research process, whereas other methods are more suitable for hypotheses test and theory building." (Ibid. P. 221)
Flyvbjerg concludes: "The case study is useful for both generating and testing of hypotheses but is not limited to these research activities alone" (Ibid. P. 229)
He argues: "… it is often more important to clarify the deeper causes behind a given problem and its consequences than to describe the symptoms of the problem and how frequently they occur. Random samples emphasizing representativeness will seldom be able to produce this kind of insight; it is more appropriate to select some few cases chosen for their validity." (Ibid. P. 229)
The case study uncovered the benefits and challenges using HW and gave insight to how humans (could) react and experience in this VR setting.
Flyvbjerg highlights "the most likely case" as criteria for choosing the case and as described above HW was chosen to be the most likely case, among the newest digital options present in order to confirm or falsify its' capabilities to replace business travel. As I have not tested other options in AR or VR, I cannot be certain, that this is the most likely case.

"4: The case study contains a bias toward verification, that is, a tendency to confirm the researcher's preconceived notions." (Ibid. P. 221)
"Moreover, the question of subjectivism and bias toward verification applies to all methods, not just to the case study and other qualitative methods. For example, the element of arbitrary subjectivism will be significant in the choice of categories and variables for a quantitative or structural investigation, such as a structured questionnaire to be used across a large sample of cases. And the probability is high that (a) this subjectivism survives without being thoroughly corrected during the study and (b) Flyvbjerg / Case-Study Research Misunderstandings it may affect the results quite simply because the quantitative/structural researcher does not get as close to those under study as does the case-study researcher and, therefore, is less likely to be corrected by the study objects "talking back.", according to Ragin (1992)" (Ibid P.235-236).
This is an important statement, again challenging the positivistic/quantitative approach. But, off course, this argumentation does not in itself qualify my case study as being valid and not subjective. In this case, we can just say, that my case study, a priori, not has a more subjective bias, tending to confirm my presumptions than a quantitative studies would have.

“Misunderstanding 5: It is often difficult to summarize and develop general propositions and theories on the basis of specific case studies.” (Ibid. P. 221)
“The problems in summarizing case studies, however, are due more often to the properties of the reality studied than to the case study as a research method. Often it is not desirable to summarize and generalize case studies. Good studies should be read as narratives in their entirety” (Ibid. P. 241)
In my case, as mentioned above, the aim is not to get to a single, irrefutable conclusion. The sharing of the experience in HW as they turn out in the interviews together with the participations experiences with business meetings and travelling in their work could be said to form a narrative, that is discussable and used and questioned in connection with the literature reviews.

Limitations

In terms of literature, I have, unsuccessfully, searched for research studies, concerning the users’ experience of VR meeting platforms. What I found was more focused on tourist and their meeting with destinations, than the business meetings. There is a rather long way from these VR tourist studies to VR meeting rooms.

Moreover, could it have been interesting to use different segments of participants, from other fields of work, where the digital tools provided in HW could have been broader used.

Furthermore, it could have been interesting to involve participants from other cultures than the digitalized western society that I have used in this study, as regions that have a different condition in their relations to digitalized items (e.g., credit/debit cards, video calls etc.) maybe would have experienced the experiment differently.

The background and options for digital business meetings

To better understand the present potentials for the business meetings, a brief historical examination of the development of the internet is made here.

Web 1.0, which originates from the 1990s and the early 2000s, has since evolved into Web 2.0. Web 2.0 has rapidly expanded, thanks to innovations like smartphones, mobile internet access, and social networks. Web 3.0 will be more decentralized, open, and useful than Web 2.0, and introduces a ubiquity digital world and an envisioned future of the metaverse.

Web 1.0

When Berners-Lee was a computer scientist at a European research organization in 1990, he was a pioneer in the early creation of the internet.
Berners-Lee wrote the three key technologies that formed the basis of the web by October 1990 (Cern. 2022).

- HTML: HyperText Mark-up Language, the mark-up or formatting language of the web
- URI or URL: Uniform Resource Identifier or Locator, a unique address used to identify each resource on the web
- HTTP: HyperText Transfer Protocol, which allows for the retrieval of linked resources from across the web (World Wide Web foundation, 2022).

In the middle of the 1990s the arrival of web browsers like Netscape navigator marked the beginning of the Web 1.0 era. This was the era of static websites that were downloaded from servers. At the time, the majority of internet users were enthralled by the novelty of capabilities like email and real-time news retrieval. Content creation and interactive usage was limited, although this improved as online banking and trading became increasingly popular (Beattie, 2022).

Web 2.0

The term Web 2.0 was first used in 1999 and refers to a paradigm shift in usage of the internet. Interactivity, social connectivity, and user-generated content, makes it possible for user-generated content to be viewed by millions of people around the world virtually instantly. This unparalleled reach has been a reason for the exponential growth of Web 2.0, through key innovations such as mobile internet access and powerful mobile devices like iPhones and Android-powered devices. Thus, the last 10 years have provided a dominance of an array of apps that greatly expanded online interactivity and utility e.g. Airbnb, Netflix, Facebook, Instagram, TikTok, Twitter, Uber, WhatsApp, and YouTube (Kenton, 2022).
Some of these Web 2.0-centric companies have experienced a phenomenal revenue growth, placing them among the world's biggest companies by market capitalization. The biggest five (Apple, Amazon, Google, Meta (formerly Facebook), and Netflix) have their own the stock category; FAANG (Fernando, 2022).

Web 3.0

Web 3.0 represents the next phase of the evolution of the web and could potentially be highly disruptive and represent as big a paradigm shift as Web 2.0.
Web 3.0 is built upon the core concepts of decentralization, trustlessness and permissionlessness, machine learning and artificial intelligence (AI), openness, and greater user utility (Berner-Lee, 2001).

Decentralizing is a core concept of Web 3.0 and a switch from the massive databases currently held by internet giants like Meta and Google, should be stored in multiple locations simultaneously and would hand greater control to users.
Furthermore, the data generated by mobile phones, desktops, appliances, vehicles, and sensors, should be sold by users through decentralized data networks, ensuring that users retain ownership control.

In addition to decentralization and the usage of open source software, it should also be *trustless*, allowing interactions without going through a trusted intermediary, and *permissionless,* allowing anyone to participate without authorization from a governing body. Therefore, applications would be controlled by either or a combination of blockchains and decentralized peer-to-peer networks, creating decentralized apps, which are referred to as dApps (Frankenfield. 2020).

With the help of technologies based on Semantic Web principles and natural language processing, computers will be able to comprehend information similarly to humans in the Web 3.0 era. Use of machine learning, a subset of artificial intelligence (AI) that mimics human learning by using data and algorithms, is gradually improving its accuracy. These capabilities will enable computers to deliver faster and more relevant outcomes.
Thereby making information and content more accessible and ubiquity, as the number of everyday devices that are connected to the internet increases.

Metaverse

As part of the envisioned future of Web 3.0 are the ideas of the metaverse, a ubiquity digital world.
In order to enable user interaction virtually, the metaverse integrates elements of social networking, online gaming, augmented reality (AR), virtual reality (VR), and cryptocurrency. In order to improve the user experience, augmented reality places visual components, audio, and other sensory input into real-world situations. Virtual reality, on the other hand, enhances made-up realities and is fully virtual.
In fact, in 1992 Neal Stephenson wrote the science fiction novel "Snow Crash", in which he envisioned lifelike avatars, who met in realistic 3D buildings and other virtual reality environments and offered a hyper-real alternative world to coexist in, called *metaverse* (Snider, 2022).

The depths of the metaverse make it difficult to define precisely, but technology experts concur that it is a massive network where people may engage socially and professionally, invest in money, take classes, work, and travel in 3-D virtual reality using their avatars (Pew Research Center, 2022).
As the metaverse expands, it might produce online environments where user interactions are more multidimensional than what is possible with the available technology. Thus, the metaverse will enable users to experience the convergence of the physical and digital worlds.

The metaverse is viewed as the next step in the evolution of the Internet by its proponents. For instance, Meta, former Facebook, has already made significant investments in AR and VR, creating devices like its Oculus VR headsets while also researching AR glasses and wristband technology.

Moreover, according to Zuckerberg, who thinks that in the future, AR glasses will be as common as smartphones, during the coming years, Facebook "… will effectively transition from people seeing us as primarily being a social media company to being a metaverse company" (Heath. 2021).

The sci-fi metaverses that are featured in much science fiction literature, television shows, and films, frequently feature dystopian settings. And thus, are some of the competitors worried that the next generation of the real-world metaverse, might turn into a dystopian nightmare (Pew Research Center, 2022).

Not the entire industry, though, is convinced that metaverse is the future, or that VR is. Tim Cook from the competitive company Apple does not use the phrase metaverse, because most people do not fully get what it is. The phrase is typically used to refer to VR-enabled platforms where users can work, play, and communicate with one another (Vardai, 2022). Tim Cook argues that virtual reality is "… something you can really immerse yourself in." He did, however, add that while VR technology is helpful in some areas of life, it is not a reliable means of communication and that Apple is creating several new AR-based devices, such as AR glasses and a VR/AR headset. Tim Cook did in an interview with Bright magazine state the following “I think AR is a profound technology that will affect everything … We are really going to look back and think about how we once lived without AR” (Poort, 2022).
Two instances of popular AR technology are the mobile game Pokémon Go, which uses a mobile app to make 3D cartoon creatures appear in the real world, and the IKEA app, which enables users to virtually arrange furniture in their own homes using a cell phone camera (Park, 2022).

Literature review

Introduction to the Section

To come around and examine the questions and themes related to the benefits and challenges of physical/digital business travel meetings, this chapter includes following subsections:

- Sustainability and tourism (Foundation, planetary boundaries, sustainable business travel).
- Business travel – bleisure
- Business Meetings: Digital platforms/physical attendance
- Digital tourism (Digital tourism - a phenomenon, the linkage between society, tourism, and technology)
- VR and Tourism

- Placemaking, Placelessness

Together, these issues comprise the theoretical framework and provide the theoretical foundation for the thesis.

Sustainability and tourism

This part will discuss sustainable tourism and examine a sustainable approach to the development of the tourism industry.
Sustainability, with the climate changes as the prevailing problem, is at the core of almost all societal questions in this period of the Anthropocene. Therefore, an important issue is to examine business travel digital/physical in relation to sustainability. So, the following section will take us through an encirclement of some of the most, from my point of view, important contemporary theories on sustainability in a broader sense, including “the three pillars”, the doughnut and degrowth approaches.
In connection with this, approaches to sustainable business travel and tourism question is discussed.

Foundation

The objectives for sustainable development are seen from a variety of aspects in the UNWTO Tourism for Development report from 2018. Priority is given to economic sustainability, followed by social and cultural considerations regarding protection of cultural heritage, social inclusion, and understanding among people (World Tourism Organization, 2018). Sustainable development is defined in the Brundtland Commission report from 1987, which introduced the first sustainable development principle as follows: "Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs"(United Nations, 1987: P. 15). In contemporary literature on sustainability, the report remains essential. Later, because of this, the 2030 Sustainable Development Goals of the United Nations were created in 2015.
Although there are many different definitions of sustainability, most scholars analyse it using a triple bottom line framework that clearly distinguishes between its environmental, economic, and social elements. The three pillars of sustainability are incorporated into the definition of sustainable tourism by the World Trade Organization and the UN Environmental Program as “… tourism that takes full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, and the environment and host communities” (UNEP-WTO, 2005, p.12). The triple bottom line approach has been used frequently in tourist studies, which have resulted in research criticizing the three-pillar categorization. One of the problems occurring when the concept of sustainability is put into practice in the tourism industry is that environmental concerns take precedence over the other aspects of sustainability such as the negative impacts that tourism has on communities (Moscardo and Murphy 2014). McKenzie (2004) states, that sustainable policies and efforts are commonly environmentally unambiguous.

Correspondingly governmental tourism plans are often primarily focused on the industry's expansion and revenue from tourists, an example of how the economic side is prioritized over social well-being (Higgins-Desbiolles, 2018). Moreover, sustainable tourism is referred to by several concepts, including responsible tourism and ecotourism, all of which aim to reduce the negative effects of tourism and improve the quality of travel and living destinations (Saarinen, 2013). These are debatable answers to a sector that has become commercialized and strives for exponential expansion.

Moreover, there are three general principles in the field of sustainable planning within the tourism literature: a holistic strategy, long-term planning, and social equity (Sharpley, 2000). These principles are further developed, to include the location, the circumstances, and the stakeholders, which all affect sustainability in the tourism industry. Diverse stakeholder viewpoints will influence the evolution, but the economic result may continue to serve as the major driving force and the benchmark for sustainability in a society (Hall & Richards, 2000). And since economic viability comes before all other considerations in the tourism industry, the term "sustainable tourism" is criticized for being unclear (Saarinen, 2013). This is due, in part, to the economic aspect's reliance on short-term fixes, but environmental and social challenges require long-term ideas and procedures. As a result, enterprises that make remarkably tiny modifications to their fundamentally unsustainable ways of operating have come under heavy criticism for commodifying the term "sustainable tourism". Thus, criticism of the greening and socializing of tourism is made, as it already leads to an increase in the overuse of resources (McCool, et. al. 2013).

Furthermore, it's been claimed that the phrase "sustainable development" is an oxymoron because *sustainability* calls for maintaining and improving, what already exists, while *development* calls for change and advancement (Girard & Nijkamp, 2009).

Planetary Boundaries

The literature on sustainable tourism is largely focused on the reduction of Co2 emissions. Back in the 2009 Stockholm's resilience centre report "Planetary Boundaries: Exploring the Safe Operating Space for Humanity" came out. The report focuses on 9 different indicators of the earth systems well-being and finds, that humanity already has passed three of the nine indicators.

"We are not suggesting that the current state of biodiversity has passed a boundary. We are saying that the world cannot sustain the current rate of loss of species without resulting in functional collapses." (Rockstöm et. al. 2009).

So, interactions among planetary boundaries have reduced rather than expanded the boundary levels stated and thereby minimized the safe operating space for humanity. Therefore, the report suggests the need for extreme caution when approaching or overstepping any of the planetary boundaries. This understanding was adapted into both the *anthropocene* and *degrowth* discourses and the more firmly concepts of the doughnut economy. It jointly states, that we are living in a time when human impact on the planet's

boundaries is vital for its future, both as a cause and as a solution to problems. Notice that the Anthropocene has been criticized for having a scientific and western bias, by attributing the blame for climate and environmental change to "man" as a species, rather than specifically pointing to the dynamics of Western capitalism. While simultaneously emphasizing simple technological or eco-modernist remedies, the concept place man at the centre and provides him apparent power over the changes taking place on earth (Bubandt, 2018). Both degrowth and the donut economy suggests recommendations for how to integrate social sustainability, or the opportunity for people to have happy lives with global sustainability.

The first worldwide degrowth conference was held in 2008 in Paris, and here the former concept of décroissance was translated to "degrowth", and the meaning shifted focus from which society one would change to which desirable society one would create - a utopian dimension (Perrique, 2019).

The doughnut economy tries to solve the challenge by "creating space for global economies that ensure no one is missing the essentials of life ... while protecting the Earth's life- giving systems"(Raworth, 2018. P. 17). A new economic future has been defined because of the research's integration of interdisciplinary concepts and mindsets, including ecological, feminist, behavioural, and institutional economics in all of their complexity. Humanity needs new rules and guidelines to assist it enter the fair region between the planetary boundaries and the doughnut's social foundation.

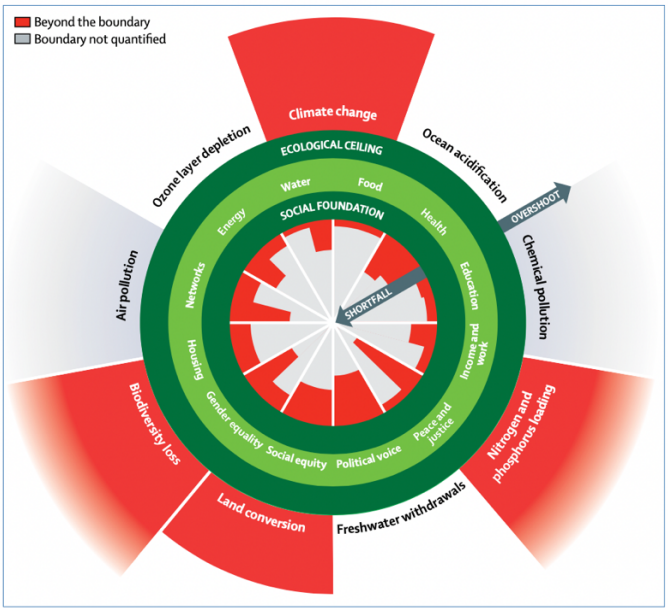

Table 2. Shortfalls and overshoot in the doughnut (Raworth, 2018)

The concept calls for future economics need to figure out practical techniques to think in groups and add joint solutions. The philosophy of the past built on growth and focused

mostly on GDP growth, is tending to change in reverse direction today. The doughnut concept is based on the positions, pictured in the figure above, to secure an both economic and sustainable transformation essential for the 21st century.

Sustainable Business Travel

Studies have found a growing interest within multiple sized companies to reduce their CO2 emission (Conrady, 2012; Roby, 2014, Andersen et al. 2019)

Limited liability companies are accountable to their shareholders and are therefore legally required to produce annual public reports. When it comes to the public image that companies want to project, this level of accountability can encourage sustainable business travel. Even smaller organizations have decided to disclose information on CO2 emissions, especially those from business travel (Roby, 2014). In terms of using more energy sufficient means of transportation by implanting a mobility service application, Andersen et al, (2019), found three elements that affect a new MSA's ability to enhance environmentally friendly business travel: proactive management, perceived improvement in intervention, functional and technical sufficiency, and management control. The findings also emphasized the need to create organizational frameworks that support eco-friendly business travel, such as a clear travel policy, accessibility to eco-friendly means of transportation, and a culture that supports green behaviour.

The growth of virtual meeting technologies and online social media has been one of the major changes in the business travel sector in the previous years. Both the quality and functionality of video conferencing and telepresence systems have improved. The main problem for businesses is figuring out how to use these technologies to increase productivity and communication (Roby, 2014). This problem relates to the theory of media richness that has steadily evolved into one that explains why and how organizations choose their communication channels (Arnfalk and Kogg, 2003). Even though we have seen these technological improvements, mentioned above, a study by Haynes (2010) found that video conferences were not considered a replacement for business trips, but rather for teleconferences. On the other hand, did (Roby. H, 2014) find that 50% of business trips could be substituted by virtual communication. As mentioned in the introduction, another study found that most companies with a lot of travel activity would like to pay the extra cost associated with flying with more biodegradable jet fuel. (Godning, Andersson-Franko & Lagerkvist. 2018). But the uncertainty about available options is still in question, as concepts for electromobility in air traffic are still not technically possible.

The power to weight ratio, which hits its physical limits, is the key issue. Batteries can't even come close to the energy density of conventional fuels like kerosene. To store the same amount of energy as one kilogram of kerosene today, 30 kg of the finest batteries are

required (Conrady, 2012). He ends his research with a quote from the airline industry "The last drop of crude oil will be used by airplanes" (P. 255). In addition, technology and the internet are also large consumers of energy, including VR equipment. They use significantly more energy than they need, because they have been developed based on traditional video projectors, but there are predictions that in the future they will be able to use 40% less energy (Leng, et. Al. 2020).

This section reviews how sustainability is processed today, it turns out that many objectives rest on the almost 40-year-old report. In addition, we also see that there is an increased interest among companies in changing the travel patterns of their employees and that it is largely due to technological limitations that this process is slow.

Business Travel

This section will examine business travel by looking at how travel is addressed in academia, then outline common discussions in the field of business meetings and finally address various definitions.

Travel is frequently divided into three distinct groups in the subject of transport studies: commute, business and leisure. As mentioned before this project will look closer into the field of business travel.
Hollet, Jain & Lyons (2008) describe business travel as "… journeys made in the course of work" (P. 28). Moreover, travelling can potentially add more value than the time spent and required to transport.
Travel time can be productively employed for both business and leisure activities. (e.g. Lyons and Urry, 2005; Watts, 2008; Lyons et al, 2012). They identify productivity as working/studying, e.g. text messaging and phone calls, recharging and relaxing, sleeping and eating as positive impacts.

In this project, business travel that involves in-person meetings is discussed, which is what Mackie, Wardman, Fowles, Whelan, Nellthorp & Bates (2003) defines as *briefcase business travellers*. This correlates to a survey, where the majority answered, 'yes' to the question; "In terms of your paid employment is there some work that could easily be undertaken on the train?" (Lyons, 2008b).
This study and experiment are focusing on briefcase business travellers. They are chosen primarily because of their extended use of air transport and the question of if and how they are provided with an *office on the move*, is investigated closer in the interviews.
The travel time spent could be a benefit in terms on time to focus that might not be possible in the office. So, travelling and travel time can as well be burdensome as a potential advantage. This will be questioned in the interviews during the experiment.

The time travelled to achieve the face-to-face interaction, can add to social capital, at least it is discussed in Hollet, Jain and Lyons (2008) as they mention the idea of the gift of travel time, which represent in part the value of a social interaction represented by a person's willingness to give up hers/his time to travel to be there with others.
Factors of importance are weariness, irritation, and anxiety: Concerns related to effects at home, difficulties related to unmet family obligations, as well as business trips' impact on these emotions (or at work). Gustafson (2006) mentions in an analysis of gender and family responsibilities in connection to business travel, the phenomena of "intermittent husband syndrome," which has the potential to cause stress difficulties for business travellers as well as marital issues and behavioural issues for the children. Moreover, it is found, that there are distinct differences between genders in this matter (Ivancevich, Konopaske & Defrank. 2003).

The medium of email significantly lowers the cost of sending and receiving a message and thereby removes expenses as a matter. But the social capital is significantly constrained compared to physical meetings. In a broader sense, Urry (2003) examines the term "meetingness" and the necessity of frequent face-to-face gatherings (social or corporate). He discusses obligations to maintain weak-tie networks in the setting of a more networked society of the information age. Correspondingly Faulconbridge et al (2009) states in their empirical analysis of sporadic face to face meetings, that they tend to create, maintain, and reinforce partnerships that reduce your need to travel in the future.
This question of pro et cons regarding digital vs psychical meetings, will be investigated in more detail in the experiment, and at the same time literature on that approaches the implications of the physical meeting will be discussed.

Bleisure travelling

As it turns out in the Findings section, the participants often aspire, purposes and wants, when business travelling, that is beyond the work itself. It can be the leisure aspect of the travel and it can be related to aspects of the work, besides the actual job executed. This aspect is called *bleisure.*
"The term bleisure was first published in 2009 by the Future Laboratory as part of their biannual Trend Briefing ..." Lichy and McLeay (2018) examine "… the motivations of different types of bleisure travellers.:" individuals who combine leisure with professional business obligations when abroad"" (P. 517). They describe their motivation and theoretical foundation: "As existing theories of tourist motivations have mainly been developed in a leisure context, they fail to fully capture the nuanced scope and subtle context of business and leisure motives. We therefore draw upon experiential learning, boundary-less career theory, expectancy theory, and social capital theory to put forward contemporary insights on the nexus between business and leisure tourism." (Ibid. P. 517)
Their research leads them to 5 types of bleisure travellers:

Experiential learners
"Experiential learners are often young managers or "early career" researchers, looking to broaden their learning experience. Usually without children or dependents, Experiential learners seek transformational experiences and opportunities to acquire new knowledge." (Ibid P. 523)

Escapers
Travelling as an escape or break from the daily routines. The daily work, the family, the routines, getting spare time to seek experiences, which is often not possible at home

Working vacationers
"Working vacationers actively seek to take advantage of the opportunity to combine work and pleasure, while still respecting their professional obligations." (Ibid. P. 524)
Typically, they are in the beginning or end of their career and often childfree, which gives them the opportunity to prolong the stay and/or using the site to have new experiences.

Altruistic knowledge sharers
This type is described as senior academics that like to share their knowledge.
They are "… Often end-of-career academics, they have fewer commitments and obligations at their home institution and are interested in (and enjoy) sharing their life's experience. Their satisfaction stems from the opportunity to tell others about their research and international exploits." (Ibid. P. 524)

Research-active trailblazers
They are described as ambitious career types seeking advancement through papers, publications etc. They use their spare time to intense networking.
"Social capital theory partly explains how the relationships between individual Research-active trailblazers and the organization where they work facilitate action and create value (Hitt & Duane, 2002) through the connections or social networks among individuals (Barros, 2006)." (Ibid. P.525)

There is, off course, no strict limits between these types. Combinations and overlaps, maybe with a prevailing element, will occur. In the discussion section, the results from the findings section will be compared to these bleisure types.

Business Meetings: Digital platforms/physical attendance

The question of whether two or more people must be present to accomplish the deal or meeting agreement at the travel destination is related to issues regarding the need to travel at all. This question is especially important when it involves the sharing of information,

which could have been transmitted electronically, and so potentially eliminates the need for the participants to travel physically to meet.
At first, the complexity and character of the communication. Arnfalk and Kogg (2003) claim, that the medium for communication is determent by the type of communication that shall be communicated. Moreover, they emphasize the importance of face-to-face meetings to achieve goals with complex content.
This point of view is supported by Standaert , Muylle and Basu (2022). Based on empirical research they develop "… a decision-making framework for choosing when and how to meet virtually, based on matching the appropriate communication capabilities with various meeting objectives and taking into account meeting size and duration." (P. 267)
So, based on the purpose, needs and digital options for meetings this scheme is developed, showing the options (Ibid, p. 270):

Figure 2. Decision-making framework for choosing how to meet

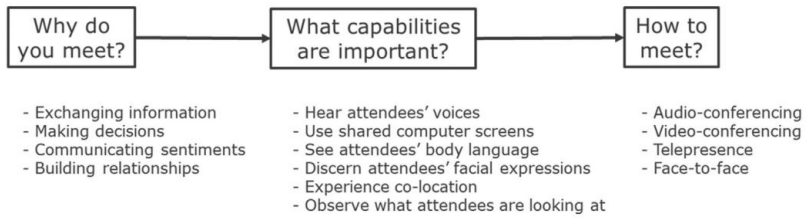

Table 3. Figure 2. Decision-making framework (Standaert , Muylle and Basu, 2022).

This leads them to following recommendation (Ibid, p.272):

Table 1. Identifying an effective meeting mode

Meeting objectives	Audio conferencing	Video conferencing	Telepresence	Face-to-face
Exchanging information	X	X	X	X
Making decisions		X	X	X
Communicating sentiments		X	X	X
Building relationships			X	X

Table 4. Table 1. Identifying an effective meeting mode (Standaert , Muylle and Basu, 2022).

They conclude: "Meeting the right way is not simply a matter of using the most sophisticated technology available. While using technology with unnecessary capabilities is not likely to reduce effectiveness, it does consume scarce and costly resources that could be used more effectively to secure capabilities that contribute to meeting effectiveness." (Ibid, p. 273)

This is what in the field of social semiotics is referred to as *modal affordance*.
Modality is the mode, in which something is expressed/communicated. More modes in combination give multimodality.
The concept of multimodality tries to capture three problems associated with communication:

1. When we communicate, we use a variety of linguistic resources that depend on our cultural situation and location.
2. The linguistic resources consist among other of words, images, gestures, facial expressions, tone and rhythm, video, and arrangement of the physical surroundings.
3. The use of IT makes it possible to link many different resources together, and this option has become commonplace, not least on social media. The visual resources gain at the expense of the verbal ones. (Kress, 2010).

According to the theory of multimodality, a range of different forms of representation has developed, as they have different capabilities, they can and do different things. This is referred to as different affordances. An elementary example: You can play tennis with a spade and dig with a rack, but their modal affordance points at the reverse.
Different modalities thus offer different possibilities and limitations in relation to what is possible to represent and communicate. Each *mode* can communicate in particular ways. Combining several modes give a complex situation for both sender and receiver.
This is another theoretical approach to describe 'the effective meeting mode', giving a conceptual framework to describe and analyse the potential meeting modes, their modal affordances.
So, the modal affordance of a text/an e-mail is the discursive precision and the obligation that comes with it.
For relation building, visual and audio contact giving the possibility to hear a voice, see a face/body, reading gesture and mimic, body language the modal affordance coming with video meetings is suitable to a certain degree.
The physical meeting as a multimodal communication situation can reach beyond knowledge sharing and concrete business development, because it can build trust and create relationships between people involved in a deeper way than the video conference.
" Eye contact enables and stabilizes intimacy and trust, as well as the perception of insincerity and fear" (Urry, 2003, P. 163)
And a likewise argument from Storpher and Venables (2004) says: "Humans are very effective at sensing non-verbal messages from one another particularly about emotions, cooperation, and trustworthiness" (Ibid, P. 9).
Establishing professional networking, continuous cooperation and maybe friendships occur to a much higher degree through the physical presence. Beside well-defined business meetings, seminars and conferences with a common professional profile are very supportive in establishing contacts and relations.
So, the concept of *modal affordance* could provide us with a useful tool, in the examination of the communicative options from e-mail and phone calls, via video meeting and virtual reality meeting to the physical meeting.

Digital Tourism

This section will examine digital tourism, by looking at how travel is addressed in academia, and then outline common discussions in the field of business meetings, and finally addressing various definitions.

Significant academic attention has been paid to the creation of new technological tools and how they relate to tourism over the last twenty years, as mentioned in the introduction. Technology has changed how tourism is done and has also given rise to a growing body of literature known as "*digital tourism studies*" (Munar & Gyimóthy, 2013; van Nuenen & Scarles, 2021). Two major topics have arisen from the assessment of the literature. First digital tourism as a phenomenon and second the linkage between society, tourism, and technology.

Digital Tourism - a Phenomenon

The definitions of digital tourism often embrace the experience, including the timeframe from before, during and after the travel. Wright (2015) defines digital tourism as the element that "… intersects past and present, time and space and mediates between real and false" (P. 86). Similar Benyon focuses on "… digital technologies to enhance the tourist experience" (Benyon, et al. 2013. P 521) and later expands the view to include "mixed reality interactions" (ibid. p. 522). In reality, these mixed reality encounters may take place through social media, AR, or VR (Akhtar, et al., 2021), websites that facilitate bookings, reviews, and ratings (Benyon, et al., 2013), or even other types of tourist destinations like e.g., museums (Navarrete, 2019). Numerous studies have demonstrated that digital technologies are utilized in the tourism industry not only to simplify decision-making or the buying processes, but also to break routines and improve the overall experience (Benyon, et al., 2013; Roby, 2014; Wright, 2015; Navarrete, 2019; Guo, et al., 2021). According to Navarrete (2019), the use of digital tools facilitated the creation of a more varied selection of museum exhibits and experiences that were made accessible to virtual visitors as well, resulting in increased revenue. In terms of creating long-term behavioural change, regardless of how strongly the organizational culture supported it, the personal approach is very important. Constant reminders, motivation and restraints are needed to overcome the easy choice of face-to-face interactions (Roby, 2014). Furthermore, Guo et al. (2021), finds the visitor experience even more immersive when multisensory cues is used in museums as these generate emotions and give the visitor a sensation of being more present during the encounter of the event.

Moreover, multiple studies have investigated how the marketing of tourist destinations and experiences have impacted by digital tourism (Caraivan, 2017; Ketter & Avraham, 2021). Digital representations of places and services have incorporated deeper links, concerning feelings and individual values (Ketter & Avraham, 2021).

It is emphasized that the *virtual landscape of tourism*, within the use of digital tools fully mediate interactions between business and visitors (Caraivan, 2017). So, when used with the right approach, they may give tourism industry the resources they need to expand and preserve their good reputations—even during severe crises (Ketter & Avraham, 2021).

However, as research on the advantages of digital tourism increased, a novel idea known as "digital-free tourism" appeared, offering a more critical viewpoint on the use of technological tools used in relation to travel.
Most of the research looking into the idea of digital-free travel mention restricts on use of computer, smartphones, and communication technologies by visitors while they are on vacation (Liu & Hu, 2021), as it is customary for tourists to use social media and review sites actively while they are away, thus, reducing the feeling of being present in the experience and linked to the destination (Egger, et al., 2020). Even more drastically Egger, et al. (2020) claim that increased technology use interferes with anxiety levels and thereby seriously affecting one's general mental health. However, most of the research looking into the idea of "digital-free tourism" tends to focus on technological innovations that interfere with our daily lives rather than those that improve the trip experience Guo, et al. 2021).

The literature mentioned above has offered a basic understanding of the ideas behind "digital tourism" and "digital-free tourism," as well as a fast look at the numerous relationships between different tourism stakeholders and digital technologies.

The Linkage between Society, Tourism, and Technology

Digital tourism makes it possible to interact without being constrained by space or time. How does digital technology interact with society and tourism industry?
Munar & Gyimóthy (2013) has established three major conceptual frameworks characterizing relationships between society and technology:
Determinism is the first, and the basic understanding of the socio-technical relationships, understanding technology as the primary driver of change, acting as transformative forces in society with minimal influence over humans." (Munar & Gyimóthy, 2013). Therefore, the idea of determinism portrays people and communities as being somewhat victims of technical advancements.
The social construction of technology framework, on the other hand, supports the opposite argument, emphasizing that people and groups, not technology, are the ones who have the power to bring about change, as technology is viewed as a transforming tool that enables group action and meaning (Munar & Gyimóthy, 2013). Considering this, technology is utilized by social actors as a tool for social change.
The third framework, on the other hand, views technology and society as having a *mutually influencing relationship* in which both individuals and groups have an influence on development and vice versa.

Finally, a crucial aspect of this interaction is that, despite the fact that both agents have some influence over societal change, neither has control over the probability that such change will occur (Munar & Gyimóthy, 2013).

Even though technology has significantly changed how society and tourism operate, an alternative is to look closer at socio-technological relationships by examining them in the context of tourism-related digital business ecosystems.
Baggio & Del Chiappa (2013) maps various stakeholders within tourism interactions in a virtual/physical network. The study found that the virtual and physical elements of interactions were so linked that it would be practically impossible look at them individually, as relationships between the stakeholders and their usage of digital tools are so intertwined (Baggio & Del Chiappa, 2013).

To summarize has technology continually changed consumption patterns over the past 20 years. And the review above show how digital tools in the travel industry must be regarded as incorporated components of both tourism structures and relations as they are an inherent component in both society and the travel industry.
As part of the empirical part of this thesis, I have asked the participants in the experiment if and how digital solutions affect the travel behaviour, subsequently questions is asked about how the metaverse has been in relation to this, and whether it felt like a useful digital solution or not: How they feel the technology affects them, who is in control, the technology, or the humans and in addition, whether they see the digital and analogue options as separate or as inextricably linked. See the section on *Findings*.

Virtual Reality and Tourism

Two studies, I have found, examines the emotional effects, experiences and reactions with virtual reality experiences, in terms of happiness, well-being, expected outcome of a VR visits to tourist destinations (Yu Li, HakJun Song, and Rui Guo, 2021; Skard, Sjåholm, Knudsen, Sjåstad, Thorbjørnsen, 2021) and a third study that examines VR opportunities to take over tourism (Cheung, 1995).
All the studies emphasize the positive effects of visiting tourist destinations in a VR setting. "The results indicate that attributes of virtual reality tourism have a positive effect on presence during virtual reality experiences, which positively influences perceived value." (Yu Li et al. 2021. P. 1).
Yu li et al. (2021) study must be seen in the light of the corona shutdown and here China had and has had a different policy than we have experienced in Denmark. There was substantially more limited freedom of movement, which must be brought into mind when looking at the immediate positive experience and the feeling of reliving a leisure destination. "VR tourism, as a form of leisure activity in daily life, provides an effective coping strategy to enhance residents' levels of well-being and destination recovery." (Ibid. P. 12). Despite this

political difference in the handling of the Covid-19 pandemic, the found positive effect of the VR experience must be taken seriously, and therefore also examined in the discussion. Where Yu Li et al. (2021) study largely focused on reliving a destination through VR, another study by Skard et al (2021) included a focus on how VR could shape a destination image prior to a visit, prior to the experience itself and Skard et al (2021) findings resulted in the following conclusion:

> "One possibility is that VR has stronger impact on mental imagery than traditional channels, creating vivid simulations of what it would be like to visit destinations. This process might create hedonic expectations of future happiness, which should increase the willingness to actually seek out the destination in real life. The results from a laboratory experiment provided support to this hypothesis …. VR exposure led to higher levels of mental imagery and happiness predictions, which in turn was associated with stronger travel intentions and purchasing decisions. However, VR effects on consumer choice were moderated by previous experience with the destination." (Ibid. P.1)

Both above studies are from more recent times, they also have a focus on the possibility of getting out or experiencing destinations through VR and VR in relation to how to experience destinations through classic media, respectively.

The latter assumption above was already addressed in this study from more than two decades ago:

> " Having vicariously experienced some of what the islands have to offer, the client would be in a better position to make an informed decision and initiate travel arrangements. Even though the alternative destinations have not been selected, images from the virtual experience still linger in the client's mind and these could create a desire and induce the client to visit those places in the future" (Cheong, 1995, P. 419).

The idea of how virtual reality can be used to market destinations is not new. Now it has also been studied that it works better than traditional media and can therefore generate more tourism to a destination.

However, it is discussed how virtual reality can become a substitute for travel, which the article neither claims nor denies, as it finds benefits for Virtual Reality in terms of safety and logistic ease, while also mentioning the missing impacts from both the social and cultural sphere.

> " Virtual reality is able to offer a wide range of travel options in a controlled and safe environment. Besides, virtual travel is more convenient and relatively cheaper than an actual vacation. Despite this, others claim that virtual reality would not be able to replace tourism. They maintain that virtual reality simulations are not realistic enough and that virtual reality is unable to recreate the social and cultural aspects of a destination" (Cheong, 1995, P. 419).

Where the scope of the articles on tourism is different, they all work around tourist destinations where they find, one is present in a more or less accurate simulation of a concrete destination and can thus walk about and get a realistic view of the real place, seemingly reinforcing the wish to go there.
The experiment deals with the communication between people, through a VR platform, a communication that the participants usually travel to a destination to achieve. So therefore, this destination has focus and value in relation to the dialogue and communication that is experienced through VR in the experiment.

Placemaking – Value of Location

Placemaking is a concept that Relph (1976) introduces into the field of human geography. Here, the term "placemaking" refers to a process by which the identity of a place is derived. A place or a destination can be "made" by developing it; this process is known as "placemaking". It has been used in urban studies to examine what aspects bring together community or business (Dupre, 2019).
This knowledge can both be seen in strategies made by government officials; as a top-down approach to destination development (Dupre, 2019), or as organized activities or organizations run by individuals, in which the local population participates more actively in the creation of places; as a button up approach (Cheng et. al. 2021).
In tourism research placemaking can thus be seen both as a personal activity and as means of creating an area (Amsden et. al. 2010).
As a result, placemaking is an ideal that challenges the planning process, because it is a naturally developing and organic process. It's important to remember that visitors have an impact on placemaking, because they consume the place and participate in its production and performance (Amsden et. al. 2010)
I wish to emphasize that placemaking has intangible components, which don't necessarily follow a pre-established plan to transform and grow a place.

Gentrification – Placelessness

The section above emphasizes how crucial it is to maintain awareness of the "inclusiveness" of placemaking activities. For instance, including values and urban designs that purposefully attracts a particular segment of the population could be another placemaking method (Dupre, 2019). Urban planners and landscape architects now understand and design placemaking to target specific investments and employment groups for an area or neighbourhood, for instance the creative higher economic classes (Amsden et. al. 2010).

Placelessness contrasts placemaking, places with placelessness have a weaker "identity" due to their homogeneous architecture and homogenized urban design (Relph, 1976. Freestone,

2016). Placelessness also signifies a lack of attachment to and sense of belonging among people on a personal level (Freestone, 2016). Gentrification, which involves a certain group of individuals, can be seen as a kind of placemaking. Some claim that gentrification is not necessarily bad because it may result in improved living conditions, limited crime, and thus more income for the local government. Gentrification, however, poses the threat of the loss of inexpensive housing, which results in the eviction of inhabitants with lower incomes. (Amsden et Al., 2010). Due to these factors, it's necessary to continue to question who becomes involved in the development process and which groups get special attention. Due to the intricacy of personal relationships to sense of place, which truly makes a location special, placemaking does not just focus on a place's physical design or marketing (Amsden et. al. 2010). It includes a depiction of the residents and the characteristics of the location, which they refer to as *home*. To ensure that more diverse groups of people and a place's attributes are incorporated and protected in the process, the approach to measure a placemaking process should not only be about redesigning its visible aspects, but also about evaluating the quality of life there (Dupre, 2019).

In social science, the term "sense of place" has a broad definition and is used in anthropology, geography, and architectural landscape studies study (Hay, 1998 & Pile, 2002). It is common to these various professions that sense of place is viewed as a reciprocal connection between the physical surroundings and the local customs (Hay, 1998; Pile, 2002 & Cheng, et. al 2021).

It can be viewed as a more internal process because of this. Sense of place, according to Lew (2017) "…is how a culture group imprints its (ed. a place's) values, perceptions, memories, and traditions on a landscape and gives meaning to geographic space". The quote demonstrates that sense of place is an *identification* with a location. A place's ability to recover from a traumatic or other significant bad event depends much on how it portrays, manages, and communicates that recovery. This is true even though a place's sense of place is dynamic and always changing (Cheng et. al. 2021). Therefore, it is suggested that external social changes and how they are managed, would affect a place's identity and, consequently, a person's sense of self (Proshansky & Kaminoff, 1983).

This section underlines the importance of inclusion to ensure attachment to a place, a sense of belonging. Whereas the gentrification of places can create less attachment to the place, it will be investigated how important places are in connection with business trips and how a place as a workspace function in relation to attachment. How do Memories, values, and landscapes contribute to identify one with a place.

Empirical Findings

This section presents the result of the author's conversations, interviews, and observations of the participants' reactions during the data collection phase of this project. The findings

are grouped into five themes which makes sense according to the main questions in this thesis:

- Preferred tools of communication: The interviewees' use of communication technology in their daily work and which preferences they have.
- VR experiences: The experiences they have had with each other during the experiment in the VR universe will be described.
- Physical attendance: the question of potential importance of the physical attendance, and personal presence
- Leisure activities: The potential of VR for travel planning
- Sustainability: How does this aspect affect the business travel

Preferred tool of communication

Most participants mentioned how, during business meetings, or in their daily jobs, they initiate a fist contact with clients via classical communication tools as telephone or email. It can be described as the core of their digital communication:
"I call the client and then we have a lot of mails going back and forth." (Mathias, Participant, Appendix 1).
The initial conversation starts via telephone. Then the preparation of more concrete content in accordance with the agreement is sent by email, which can develop into the content being sent back and forth with changes and solution propositions.
It can also be seen that the very same tools are used in the opposite order, as here when it comes to internal communication: "I do mails, and then I might have a few calls in the afternoon." (Joseph, Participant, Appendix 1).

Despite the mobile phone and e-mail being the most used tools of communication for the group of participants, the COVID-19 pandemic restrictions contributed to a new technology breakthrough: the video conferencing. Several participants highlighted how platforms, such as the Microsoft Teams, became essential in their jobs during the pandemic: "Yes, I would say so; under corona I was using it a lot, So it has been a bigger part of my work, after Covid. But I still need to get to meetings and meet people, as today, where it can't be a Teams call." (Alexandra, Participant, Appendix 5).

Although she mentions the limitations, video conferencing has become a bigger part of her everyday life, and she is not the only one: "I'm using teams all the time; I have online meetings daily." (Joseph, Participant, Appendix 1). Moreover, the quality of a video conference itself can also be a reason for the increased use:
"We had some video calls, and they were nowhere near what we have today." (Daniel, Participant, Appendix 6).
And despite the quality, there is still, as with the communication tools, examples, where the very same tool is used in the opposite order: "I prefer writing mails back and forth… So, zoom meetings are just to elaborate our different views" (Mathias, participant, Appendix 1).

Here, video conference is used as the last communication tool before an otherwise unavoidable physical meeting.
This prioritization is also supported by the fact that video conferencing seems to be more valued in connection with internal meetings, as the CFO explains here: “We do video conference calls. But sometimes I need to get some numbers, then we discuss things over the phone while looking at the excel sheets.” (Daniel, participant, Appendix 1). His familiarity with the technology comes into view here, as it is possible to share, for example, an excel sheet over a video conference, but the choice falls on using the phone and then talking about the same document on separate screens.

The above review has shown that there are differences in the participants of use digital tools. Although they are the same, there are different orders in which they use them in their communication in relation to the matter.

VR experiences

In this subsection I will go through the participants' experience of the VR room. This is a central part of the thesis to examine the reactions on the participants’ first meeting with a VR meeting room. As mentioned in the methodology chapter, the study conducted an experiment to examine the participants’ reactions during a virtual business meeting.

Asked about their reactions to the virtual meeting room that had been designed specifically for this project experiment, most participants described it as "overwhelming" and "exciting".

The design of the virtual world was almost overwhelming, it seemed like they immediately got very excited about the place.
” I entered the meeting room; it was a good setting. Michael was already sitting across from me, and with palm trees in the windows. And I was looking around a beautiful office and had the desktop with the computer and the huge whiteboard in the side” (Alexandra, Participant, Appendix 4).
The decoding of the virtual world was not present at the start, where the sensory experience itself became what was expressed, even though one knew it was not reality.
“Everything was looking like an office, but like a cartoon … we were looking at each other, the movement of the mouth and hands, everything about it was really realistic, in the palm beach office. I guess it was nice to talk about the setting at first, and being together in the setting, knowing we both thought it was surrealistic.” (Michael, Participant, Appendix 5).

The experience of the size of the room was something that all participants found both overwhelming and compelling. First, the virtual whiteboard was what was highlighted:
“The screen is so big, it was like a cinema, and I made it more realistic to do the presentation in this office from another world.” (Michael, Participant, Appendix 4). “My presentation looked huge on the screen.” (Mathias, Participant, Appendix 4).

Next, the sound design was also decisive for the experience and understanding of the size of the room: “We were in the room together, the sound made distance very realistic, like I could hear a difference between, when Michael did his presentation looking at the screen, and when he talked directly to me.” (Mathias, participant, Appendix 4).

The interaction between the participants during their presentations was also central to their experience of the virtual world, thus could make it immersive: “The point that you both see the presenter and the presentation, make it more immersive, than a Teams presentation.” (Alexandra, Participant. Appendix 5). Moreover, it presented a more spatial feeling, than one had experienced in a video conference: “You could both watch the presentation and the presenter at the same time. It makes it somehow different than watching a presentation on teams. It gives it a spacious feel that take it closer to the real world, than teams even though we are avatars.” (Michael, Participant, Appendix 4).
The virtual computer was an artefact that made virtual space more real, as “… the whole interaction with the computer in the room, was really good, I almost felt it was there.” (Mathias, Participant, Appendix 4).
Participants emphasized how the virtual screen and the presentation made it feel such as if the virtual world was the reality.
It can thus be seen the presentation contributes to make the virtual world a reality, but on the other hand it is still experienced as a virtual world: “The room itself, was a bit like going from Lego to Duplo, a bit grainier than real life, and everything has this hue, a golden glow.” (Mathias, Participant, Appendix 4).
The beautiful light and large space are breath taking to experience and gives the virtual space a different kind of life than video conferencing.
Mathias further added: “It’s kind of another level of video conferencing, at now I don’t think it is particular better, but it is definitely another kind of lively”.
In addition, the non-existent option to include specific physical things in the virtual world was a limitation: “I guess it wouldn’t work as when I am on teams, because we use the camera to look at different parts.”(Michael, Participant, appendix 4).
The connection between the physical computer and the virtual glasses limited the content of a presentation with video content, resulting in “I ended up only showing another page with stills and text … I think it would have created a deeper understanding of the movie, if the presentation had given options so Michael could have seen the scenes.” (Mathias, participant, appendix 4).

There are parts where the virtual space was limited due to technical limitations and there were unconvincing elements that challenged the experience of the interaction between the participants. Thus, the participants' experience of their interaction during the experiment in the VR room will be described as follows.

The habituation of being in the animated virtual world develops during the experiment, although it does not erase the fact that it is a virtual world:
“It was very different, as we were these computer people, avatars, with our faces and hands, but I kind of forgot about this after a little while.” (Alexandra, Participant, Appendix 5).
The available tools make the experience partly realistic, but the limitations of the same tools make the experience unrealistic.
“It felt so real, but at the same time as I was in a game … we’re looking at each other, the movement of the mouth and hands, everything about it was really realistic … it felt too animated.” (Michael, participant, Appendix 4).

As the only participant, Michael was through two sessions, and it affected the adaptation:
“Last time I felt it was more of cartoonish environment than it did now.” (Michael, Participant, Appendix 5).
Despite the limitations, there were opportunities that resemble a real business scenario:
“After I watched Michael’s presentation, it was very natural for me, to see an opportunity for SAP, even as it had been in real life, like a sales meeting.” (Alexandra, Participant, Appendix 5) The sense of reality shines through here, when the interaction in the virtual space makes the participants feel like they are in a working environment.
“I still think real life would be different, but in our meeting, Alexandra gave a nice presentation and was convincing to a level, that made me forget we were in the VR space.” (Michael Participant, Appendix 5).

Two of the participants knew each other prior to the experiment, but were not informed of this, they then discovered it during the experiment:” So many could look like him, the cartoonish look, but the Australian accent gave him away.” (Daniel, participant, Appendix 6). Although the avatar provides a visual anonymity, the sound of one's voice is recognizable.

“It’s hard to recognize anyone as Avatars, you can create it as you want, but I could hear it was Daniel.” (Joseph, participant, Appendix 6).

The reaction of the participants’ physical meeting after the VR experience is distinct:
“It was different meeting Mathias afterwards, even though I had a feeling of who he was, it was very different meeting him in real life.” (Michael, participant, Appendix 4). The first-hand impression formed by the individual during the experiment was therefore challenged at the physical meeting: “It’s fun to see Michael here in real life afterwards. He looks a bit more like a businessman, than I initial thought, but I guess after I heard his voice and enjoyed his presentation, I thought he be the type of person I usually do collaboration with.” (Alexandra, Participant, Appendix 5).
The first impression was also characterized by which signals the participants could encode through the virtual experience: “Even though it was fun to meet Michael there, it’s a huge

difference seeing him here… the body language was very good giving me a kind of picture of Michael, so in that way it's different than Teams." (Mathias, Participant, Appendix 4)

A lack of input in the formation of the first impression of the person was the lack of expression: "I´m just missing the characteristics of facial expressions you get from the video calls. Daniels avatar was just looking neutral happy all the time, it was only the arms and direction of his face it could follow, I needed these facial expressions." (Joseph, Participant, Appendix 6). The decoding of expressions has just been practiced using video conference: "When I'm on teams I only see people's faces, but I read the expressions through that, here it was hard to read the face as it was kind of static, but the movement of arms and where one was looking was the indicators I had." (Alexandra, Participant, Appendix 5).
It seems like the animated facial expression automation falls short as it doesn't provide any vivid image for the receiving person: "Actually I missed seeing the eyes, as they were just looking where the face and body pointed." (Mathias, Participant, Appendix 4).

The experience of the above shortcomings in the virtual space inspired the participants to think about where the virtual space could be useful:

- As a tool in a brainstorming process when creating storyboards in video production: "If I was more home in the setting, it could be a place where I could collab with my partner, Rune, who lives in Barcelona. The option to use the whiteboard, when designing our movie scenes … because I already know him, I think it would be easy to "translate" his Avatar into my picture of him as a person." (Mathias, Participant, Appendix 4).
- As an addition to travel activities in connection with internal international team development: "I´m doing this workshop with some colleagues in Spain ... I guess if the program was designed differently, we could have used VR as an extension to the team meetings we have had in the program." (Alexandra, Participant, Appendix 5).
- Or as an alternative solution for internal meetings: "For a meeting with my internal team I think I could use it, as the scenery was so calming. "(Michael, participant, Appendix 4).

So, in relation to an actual implementation of the virtual space, advantages and disadvantages became clearer, and it was highlighted that current solutions still were preferred: "But I guess our solution where we just call each other on skype and work in a shared google docs works better for me, and it's more free to join and leave, without totally entering another world." (Mathias, Participant, Appendix 4).
The equipment required seemed cumbersome and heavy compared to the current alternatives: "You can handle easy information on mail or discuss matters by phone or in a group conference … I think it easier with teams, I can join a meeting from my phone, even though I never do it. It's just nice to know you have the option … I might use the VR in the

future instead of a Teams call, but as it is I will continue to use teams or mails actually. I rather do teamwork on teams and mails with externals." (Joseph, Participant, Appendix 6). Future versions might be useful and usable, but the status quo is still preferred among respondents: "I guess this Avatar media could develop into something … we already use mail, video conference and travel as an array to success with our partnerships, I don't think this will change for me or the company. "(Daniel, participant, Appendix 6).

The participants are not dismissive of the virtual space as a possibility in the future; it also seems that they experience it as an extension of video conferences, both with new possibilities and limitations. The limitations weigh as the solution is now the heaviest in relation to changing their preferences and use of the communication tools.

Physical attendance

Another topic that was consistent with the participants in the experiment was the importance of the physical attendance, the personal presence, which supported and advanced the purpose of the journey. As described in the method section, the participants were carefully selected because of their business travel activities, so one might think that it was natural for them to emphasize the importance of the travel purpose, namely their personal presence. It was precisely one of the things I wanted to explore through the experiment.
The interviews showed different reasons regarding the importance of the physical journey.

The documentarian, Mathias, described the importance of understanding his characters in their own surroundings, to be able to give an accurate picture in his films: "The whole way of getting to know the character, is to be with him 24/7 going out and experience what he experiences." (Mathias, Participant, Appendix 1).

The participants who had a more consultant-like job described the importance of understanding complex issues and how time-consuming development it can be:
"I'm doing a deal with Disney, so I have been in the States for 4 times over last two months, to get the deal finished." (Joseph, participant, Appendix 1).

Here, questions are asked about how it is different to meet in real life than to communicate through a video conference: "Understanding of getting to know the problem… it is definitely different when you meet to solve various complex tasks." (Alexandra, Participant, Appendix 1).
The same group of respondents also focused on the importance of creating bonds between people, so to speak, strengthening the network: "You have to talk and drink... you know, make a bond, so that you trust each other." (Michael, Participant, Appendix 1). In addition, it is important to strengthen the existing networks through the personal presence not the least when you meet new potential customers: "It´s mostly when I need to meet new clients

I travel around." (Joseph, participant, Appendix 1), and in addition, the relationship becomes a value that takes on a tangible economic significance:
"It´s also about being social, closing a deal… You have dinner and lunch... Things develop like that, the closer the relation gets the closer the deal." (Joseph, participant, Appendix 1).
"It´s important to meet and discuss things with the clients." (Michael, Participant, Appendix 4).

For those who do not have sales and network creation as part of the job, an obligation to visit departments is expressed as part of the job and the position in the management corridor: "Sure I go around. America is our largest market, has around half of our income from there, so I go there quarterly in the year." (Daniel, Participant, Appendix 1).
The observation of the unspoken obligation was further highlighted by the respondent, who was the only one to comment slightly negative on the travel activity: "Other times it can be stressful, when you have a new destination, a new market, in a new culture and have to network with new people." (Daniel, participant, Appendix, 1).

After the experiment, the participants were asked about the experience and how they saw the possibilities of using VR as an alternative to their working day. There were quite a few comparisons to traditional digital communication as described in the previous subsection, but also an ever-existing focus on their physical presence and its importance.
The arguments about the importance of the physical connection to create relationships were repeated. The unspoken feelings you pick up prior to getting an agreement in place is of importance: "I solve every detail when I meet a client, I can feel what's needed to seal the deal." (Joseph, Participant, Appendix 6).
The same with the sensations about the people you meet at their workplace, which can provide invaluable insights for the preparation of proposals for future collaborations:
"I guess I would have been more relaxed if I had visited him in his own office. And that's actually a thing for me, when I out with my clients, I observe how the offices are build and designed, I like to walk and talk, experience how they talk to each other, and all these small differences, when you are visiting an office here in Copenhagen or out in the world." (Alexandra, participant, Appendix 5).

More concretely, Virtual Reality as an alternative is rejected for the same reasons:
"And it wouldn't work as a travel alternative, its super important in my job to meet my clients, networking. I also experience other opportunities when I'm away, finding things I didn't think of before I arrive." (Michael, participant, Appendix 4).
While at the same time you also want to ensure the client or customer experiences a sense of security in the relation: "It's a part of my job, having the personal contact, and securing my clients feel safe." Alexandra, Participant, Appendix 5).
The physical meeting is still preferred to digital alternatives, after the experience with Workspace.

“Would have been even better meeting him in his office or in a meeting room, discussing, drinking coffee … its completely different to meet him in real life.” (Michael, Participant, Appendix 4).
In connection with internal meetings and employee development, the workspace also falls short, the fun and social aspects are lacking:
“We would miss a lot of the other things that bind us together, like going out for a drink and eating dinner.” (Alexandra, Participant. Appendix 5).

In addition to the above-mentioned shortcomings, it also seems that the participants do not gain trust in their fellow persons through the experiment, when there is talk of making agreements, the safety is doubted:
“… we will always meet and discuss things in person, and then there is all the paperwork. I don’t think we would rely on this.” (Michael, Participant, Appendix 4).

Whether this is a real fear for safety or whether the fear is rooted in cultural traditions is unsaid. The traditional business processes are in any case emphasized:
“… when it comes to signing all kind of deals, I will travel to get the signature on paper. It has been like this forever and I think it’s an important part of collaboration, seeing one in the eye and shaking hands.” (Joseph, Participant, Appendix 6).

The importance of maintaining the physical meetings for the business travellers was maintained and underlined both before and after the experiment. In addition, doubts were also raised about the safety and trust in the Virtual Reality format.

Leisure activities

During the interviews and experience, one of the recurring topics mentioned by participants was the potential of VR for travel planning, since it allows travellers to preview destinations they want to visit. From the initial investigation, it turned out that VR could be used as an investigative tool in connection with the planning of travel activities: “Tried it with google maps to look at potential travel destinations.” (Mette, participant, Appendix 7).
In addition, it turned out that leisure activities are generally important for the business travellers, who took part in the survey. The possibilities of being able to experience something else than at home, is important even on a business trip. It can also be the time alone, when you are out, that can be the deciding factor. And it is very different how this time is used.
Joseph e.g., gets some fresh air:
“I even played a game of golf last time.” (Joseph, Participant, Appendix 1).
Mathias decided to do some non-paid work: “When I was I Japan shooting a commercial, I did a whole other movie about doors in Japan, just because the doors were different.” (Mathias, Participant, Appendix 4).

It can also just be about enjoying, as Alexandra states it very clearly here “So when I am away, I like to use the time not working to enjoy myself.” (Alexandra, participant, Appendix 5).
In addition, it is also important for the participants to experience the local food culture, which also has its own category within tourism. All the participants mention it in our interviews.
Even how international brands can be experienced differently abroad:
“One part about travel that I love, is to experience different cultures, you just know you are away when you order a Big Mac in another country. The smell of a new city” (Mathias, participant, Appendix 4).
The feeling of being associated with a place, even if you are neither local nor have your address, but are recognized from your previous visits, are of importance:
“I like it, when I’m in Ireland, things are just different, you meet your local barman, drink a different type of beer, go to other restaurants than you are used to, or revisit a favourite, get some other kinds of food than you can get here and so on.” (Joseph, Participant, Appendix 6).
“The restaurants, the friends, the feeling of being away, when you have to, is a huge part of the travel experience.” (Daniel, participant, Appendix 6).

But also rediscovering and maintaining friendships around the world is an advantage that several of the interview participants share. It is exactly a priority that is planned to be added. As Daniel mentions it a bit cheekily here: “One of the best effects of a boring meeting, meeting old friends.” (Daniel, participant, appendix 1).
Another aspect is maintenance of the personal network in an international context:
“I try to make travel smart, both in terms of finance and sustainability. Like when I’m in Spain now, I extended one of the trips, so I could go to Madrid and visit some old friends, from when I lived there. And in July I have some meetings in the UK, and will extend that journey over the weekend, so I can visit a friend.” (Alexandra, participant, Appendix 5).

On a more low-practical level, there is also common agreement about the importance of disconnecting. One of the respondents reflected on the challenges of "switching off" when working remotely. The sometimes hectic travel days with many meetings and people can give rise to the need to collect one's thoughts with a cold beer: “I can have meetings around the country, being in an old taxi for hours or other ignoring things, but then when I return to my hotel, have made the tasks, I like to get a cold beer, and it wouldn’t be the same sitting at home, taking these headsets off.” (Michael, participant, appendix 4).

It can be seen in the interviews that Virtual Reality does not provide the additional experiences of free time, which are very important for the participants. They all use their free time to do some of the things they would do if they were at home. In addition, in

certain cases they do extra things for themselves that are only possible because they are out to experience new cultures and destinations.

Sustainable Decisions

This section will present social and environmental related sustainability topics, which emerged during the interviews and the experiment. I could almost as well have placed the social and family-oriented issues in the section of physical attendance. I have, though, chosen to bring it here, as it emphasises the broader concept of sustainability including more than just the environmental issue as discussed in the section on sustainability.

First, the social aspects of the interviewees will be uncovered. Next, uncover which environmental preferences the interviewees experience in their work and how they relate to the issue of sustainability itself.

It has been important for the participants to establish their base in Scandinavia, including Denmark, due to a family expansion: “We decided to move to Denmark, when she was pregnant.” (Michael, Participant, Appendix 1).
Or in connection with landmark events, such as the start of school:
“I wanted my kids to go to Swedish school, so that’s why I returned. Now they go to private school in Amsterdam. So that didn’t work out as I planned … I go to Amsterdam twice a month and I have an apartment there.” (Daniel, Participant, Appendix 1), and even if the plans changes, it is important to maintain the relations.
For one participant it was a matter of finding common ground for a sustainable relation: “She was moving to Copenhagen from Kolding, and then we kind of went to Copenhagen together.” (Joseph, Participant, Appendix 1).
Time with the family is important and a priority for everyone, however it is done differently. “I have tried to limit the time away from home after I became a dad.” (Mathias, Participant, Appendix 1). And when one was asked about family matters “It’s important, I have a toddler at home, so besides work is my life focused on him and his wellbeing. It was also why I thought it was interesting to join this experiment, to see if there were other opportunities than travelling.” (Alexandra, participant, Appendix 5).

When business trips are part of working life, it is also highlighted, as here, that elements other than work, such as leisure activities, are important elements for the individual's energy when one is away: “Its properly right yeah, the other things then work, gives me a lot of energy, that overcome the negatives of being away from the misses.” (Joseph, participant, Appendix 6).
Although there are family costs of business travel, they still do not exceed the need to change workplaces: “Charlotte and I have talked about it, and she think its best that I keep my job, and then will she take care of the baby ... but I’m also prepared to manage more from my desktop in Copenhagen.” (Joseph, Participant, Appendix 1).

However, family growth gives one reason to think about expanded use of technological tools. Like here one wants to be able to work more from his private office.

All the participants focus on a sustainable approach to the future from their workplace, including the implementation of policies that directly relate to their travel activity. These approaches are experienced differently in relation to the work role of the individual participants. A finance responsible, mentions: "As a Swede we have talked about the climate crisis for years, and we even have our sustainable manager, who actual has made a flight policy in our company… shareholders like the move towards more sustainable actions in our company." (Daniel, Participant, Appendix 6).
Where the external need is met with an internal solution, it eases his department's obligations, and a consultant experiences it as part of being in an international company: "We have some sustainable policies at work, like most other international companies, and I am not in charge over that." (Alexandra, Participant, Appendix 5). Another consultant experiences the politics of an international company in the same way, but finds that his work task as solvable only with a large consumption of air travel:
"Our company has made some rules because of this, so we should try to fly less, but as I'm in charge of the Middle East and Africa, is it a bit hard to take the bicycle." (Michael, Participant, Appendix 4). The individual choice to act sustainable is also present, in relation to air travel:" I try to travel responsible in those ways. It is my way of combining business and pleasure." (Alexandra, participant, appendix 5). And as here combined with choice of daily transport: "I'm really concerned about the environment and use my bicycle as much as I can. I have a car and use it when we go to our vacation house, but only when needed. And when I have to do business I take the plane, it's about being effective and not wasting too much time on travel." (Mathias, Participant, Appendix 4).

Sustainability turns out to be a factor that is present but is not a more important priority than the main work purpose, which for the participants is largely about being globally mobile and therefore dependent on air travel.

Discussion

How is the relation between business travel as physical presence and digital meetings? How can the metaverse platform, Horizon Workrooms, contribute to business travel? Benefits and challenges!

This was the main research question for this thesis. In this section I will combine and discuss the findings in the theoretical and the empirical sections in relation to the main question.
I will use the same division of themes as in the literature review as they are shedding light on the essential aspects of the question. The section with empirical findings contributes to these themes entering the same discussion points with a slightly different systematization.

So, what is presented here is the bouquet of themes stretching from the very big and fundamental question about climate and sustainability; over business like questions concerning the tourism industry; if, how and to what degree digital platforms – and in this case, Horizon Workrooms – can contribute to business meetings and relations; to the more detailed questions concerning pro and cons in relation to be on physical business travel including the time spending and costs, how the concrete meeting with business partners contributes in results, leisure time away and family life issues.

Sustainability

There has been an increasing awareness of sustainability since the late 1980s, when the Brundtland Report introduced "Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs"(United Nations, 1987: P. 15). A responsibility was placed on humanity to actively choose to act with posterity in mind. The conception of responsibility has been discussed in academia about (McKenzie 2004; Saarinen, 2013; Moscardo and Murphy 2014; Higgins-Desbiolles, 2018).

This discussion about the sustainable future is being introduced by the companies represented among the respondents. The companies have a financial responsibility towards their owners and are encouraged to act more sustainably, even if this may have additional financial costs in the short term. As we see in the following where a sustainability advisory position has both been created and internal policies implemented to ensure a more sustainable approach to the environmental non-sustainable obligations, such as many flights. The pressure from external stakeholders, shareholders also have a major part in the ongoing development towards a more sustainable presence (Daniel, P 43) These changes show that it is not black and white but a continuous development in a direction towards a more sustainable practice.

The continuous development has met critique. Sustainable development has been called an oxymoron, as *sustainability* calls for maintaining and improving, what already exists, and *development* calls for change and advancement (Girard & Nijkamp, 2009). This understanding of sustainable development as an oxymoron, have been addressed by introducing new objectives to act upon, like the doughnut model (Raworth, 2018), that with a more holistic approach looks at an overall balance between the earth, the sea, wildlife, humans, and the air as one interrelated unit that should be kept within the doughnut boundaries.

The understanding and acceptance of these limits is shared within the area of degrowth. And a new perspective is introduced regarding the inclusion of currently invisible products, such as family care and care in general, active choice of sustainable transport and value of the common (Perrique, 2019).

The active choices of transport are also present here as one of the business travellers, who try to act sustainable but also recognizes the need to be efficient at times meaning the choice of solutions.
Thereby prioritizing to sustainable choices when it is possible, day to day decisions, but as a self-employed person also aware of the need to provide the needed in time and therefore not always available to make the sustainable choice (Mathias P. 43), as we discovered earlier, might the wants from external stakeholders also impact the SME´s and provide an ongoing change towards a more sustainable business practice.

In addition, the focus on the invisible production, such as family life and caregiving, is also important to the participants and something that is prioritized, albeit after work, which is why there is also interest among them in investigating alternative options for the travel activity, through VR, which in that case would allow more time together with the family. As our participant, who, with a new role as a mother, wants to find more ways to handle work tasks from home, which was also one of the reasons why she participated in the experiment (Alexandra P.43).

This indicates that there is a desire among the participants to adopt more sustainable approaches in their work, even though, as the literature describes, they cannot ensure a unidirectional approach. They still adapt sustainable ways in relation to being less pollutive by minimizing their travel activity, which will simultaneously give opportunity to bring family life in a more central place.

Travel time

There are discussions in the literature about whether the travel time associated with getting to and from meetings is beneficial or just a cost in relation to productivity. However, there are several studies that indicate that time can be productive in relation to secondary purposes for the travellers as they identify positive productivity impacts as working/studying, e.g., text messaging and phone calls, recharging and relaxing, sleeping and eating as positive impacts (Lyons and Urry, 2005; Watts, 2008; Lyons et al, 2012).
This is also seen among the participants in the experiment, who view the travel time partially positively, where Michael mention recharging as one benefit, as he almost never works during travel, but instead focus on getting ready to the new environment and want to put his thoughts together (Michael, P 42) and Joseph refers to using time as an office on the move and a place for recharging. He goes through the planned work, review his material, and then try to get as much rest as he can (Joseph, Participant, Appendix 1). Physical fatigue is mentioned along the option to relax, as Alexandra who tries to relax as much as possible so she can be ready to act accordantly to a new setting, since these changes can be both exiting and exhausting to experience (Alexandra, Participant, Appendix 1).

The business trip is thus described both as being tough but also exciting at the same time. Another tough element of business travel is the element of being away from home. In the literature Gustafson (2006) mentions in an analysis of gender and family responsibilities in

connection to business travel, the phenomena of "intermittent husband syndrome," which has the potential to cause stress difficulties for business travellers as well as marital issues and behavioural issues for the children.

None of the participants mentions these stress factors, but there is a focus on limiting the time away from the family, especially when the conversation concerns children, in connection with family increase, a focus on being more home, creating and working from a fully functional home office (Joseph, P. 43). And when interviewed Alexandra expressed a similar motivation in limiting her travel activities: "…hopefully you will keep travel limited in the future … and could you imagine fixing more "situations" online" (Marc, Interviewer, Appendix 1). The importance of the family was generally emphasized by the participants; however, it often appeared secondary to each participant's assessment of the work tasks. This prioritization was the same for the participants regardless of gender. Only one woman was represented, and she did not have a different priority of the family matter, although it is found in the literature, where Ivancevich, Konopaske & Defrank (2003) claims that there are distinct differences between genders in this matter.

In addition to the value of taking the time to travel, Jain and Lyons (2008) mention the idea of the gift of travel time, where the time travelled to achieve the face-to-face interaction, can add to social capital. This idea is supported by the participants, who mention the important of face-to-face interaction when it comes to completing their actual work tasks. Aspects as being social creating the trustworthy relation, comes by eating a few meals together and then the chance for closing a deal is better (Joseph, P. 39). This is also stated by another participant Alexandra who empathized the importance of the personal relations, all means necessary to get the client to feel safe (P. 40). In addition to strengthening social capital, the physical meeting at the destination also provides the opportunity to get other unplanned impressions, that can be used to both develop the exiting relations and new potential relations (Michael, participant, Appendix 46).

It can be seen in the above that the travel time mostly is accepted as part of the job, but with a schism. Familywise it can collide with the wish and need for time at home. The positive effects are the opportunities to carry out planned activities and at the same time physical travel contributes in unexpected experiences and opportunities. In the following subsection, we will look at how other activities on the trip contribute to justify this and the family absence.

Bleisure

As it turns out in the Findings section, the participants often aspire, purposes, and wants, when business travelling, that is beyond the work itself. It can be the leisure aspect of the travel and it can be related to aspects of the work, besides the actual job executed. It's found in the literature that existing theories of tourist motivations have mainly been developed in a leisure context, and thus fails to fully capture the nuanced scope and subtle

context of business and leisure motives (Lichy and McLeay, 2018). This aspect is called *bleisure*. This emerged from the participants, who all saw the importance of carrying out parallel activities, As Alexandra states she wants to use the time when she has to be away, when not working, to enjoy and treat herself (P. 41).
Lichy and McLeay present the travel type *Escapers*, but as all the participants have travel related jobs, it doesn't match the definition, and even though the travel type *Working vacationers* is defined as a younger traveller without children, it was seen with several participants, who all are parents, that they wanted to extend their trip, one purely to do leisure activities. Michael for instance like to extend his business trips to get a few days by himself enjoying a sunny destination and just recharge before getting home to the day-to-day duties (Appendix 1). Another extends the travel to maintain private relations, from previous work relations to internal school program (Alexandra, P. 42). Another travel type is the *Research-active trailblazers.* The links between individual Research-active trailblazers and the company where they work facilitate action and produce value, which is partially explained by social capital theory (Hitt & Duane, 2002). One of the participants partially fits into this type of traveller, not because of contributions to academic discussions or networks, but more tangible to make use of the possibility to produce other material, which is precisely is only possible for when experience a certain destination, as the filmmaker did while visiting Japan (Mathias, Participant, Appendix 41).

Placemaking and Horizon Workrooms as a Place

As we see in the literature, placemaking is important for the cohesive power of the individual place, the unique connection between people and businesses that make each place its own as placemaking examine what aspects bring together community, business, or tourism interests (Dupre, 2019)
Horizon has placemaked Workrooms with a design that focuses on creating interaction between people, with a visually stunning and beautiful immersive expression. Where room and spatial design of workspace provided associations to warm and bright destination, and thereby took one away from the Danish Springtime (Alexandra, P. 35).

And the implantation of familiar artefacts such as the whiteboard and the computer supported the immersive feeling of interviewees when visiting the room, the ease of use and the unseen opportunities was an eye-opener for Mathias (P. 36).

But at the same time, the workspace space was lacking in terms of placemaking, as it has more traits linked to placelessness. This must also be seen in the light that the participants had no previous experience with VR and therefore had no virtual memories to connect the experience to, even though the experiment, as described in the previous section, had a content that was like an ordinary work situation. But this is some of the aspects that stand out in the statements of the interviewees when they describe the cohesion to their regular travel destinations. As one of the participants who regularly visited his office in Ireland

pointed out it was the feeling of cosines like a local, getting recognized in the restaurant or bar, and enjoying the local specialities of the destination, (Joseph, P, 41).

So even though Workspace has a breath taking view, beautiful palm trees and a lively sense of space that is immersive, the workspace is limited by the digital barriers that, even if there are opportunities to create other backgrounds with concrete cities and known destinations, the artefacts in the space will still be the same, the whiteboard, the desk and desktop, the post it stickers, etc.
As mentioned in the value of location section, it is necessary to question who becomes involved in the development process and which groups get special attention (Amsden et. al. 2010). Where the suggested future of metaverse as an open source, free for all to develop on and contribute to. HW on the other hand is designed by Meta´s Horizon department, which has limited knowledge and option to include a specific depiction of various types of users and learnings. The lack of opportunities to contribute to the room, entails that the participants do not experience the characteristics of the location, which they refer to as their workplace, and thereby the designer miss the participants complex understanding of a workroom.
It seems like the designers have decided to use a Hollywood like approach, using computer generated graphics to create an impressive room feel, without having the complex user experience in mind and thereby adjusting the output. The design is good, immersive, and pretty, in a way too pretty and it clashes with the anonymity of the avatar's expression (Mathias, P. 36).
The breath-taking golden hue clashes with the soft and ever smiling avatars and the slightly chunky elements of artefacts in the room result in nothing good for either the experience or the immersion, as it increases the perceived distance between the room and the participant rather than connecting.

This correlates to places with placelessness that has a weaker "identity" due to their homogeneous architecture and homogenized urban design (Relph, 1976. Freestone, 2016). And where one might be tempted to understand the description above to specifically deal with a generic franchise as a concept restaurant like McDonald's, it is not only as simple as Mathias states he can feel the difference when visiting a franchise there and in Denmark, I guess he might be impacted by another different meals and a lot of other factors, sensory impacts as smell and sounds.
Here the tactile senses are involved as the cardboard on the packaging made of a different thickness of cardboard or is a different material it is not known what, but it is certain that it is different and helps to give the participant an experience of being in another place.
Placelessness also signifies a lack of attachment to and sense of belonging among people on a personal level (Freestone, 2016) as it was presented in the previous section: the limitation of interaction within the headset weaken the connection between the participants' understanding of each other, when they haven't met, and the numerous details of facial

expressions, especially eye contact is the biggest challenge, as other traits from real life interactions has even more impact in creating an trustworthy bond between people.
What the interviews also showed, was that two of the participants actively had prioritized moving to Scandinavia or Copenhagen, because it had value for them to make this place a home for themselves and their children. One decided to move from Russia to Denmark, when he knew he should be a father (Michael, P. 42). And a father wanted his kids to have the same school experience as he had "(Daniel, P. 42),
This identification with a location correlate to how Lew (2017) describes the sense of place "…is how a culture group imprints its (ed. a place's) values, perceptions, memories, and traditions on a landscape and gives meaning to geographic space".

Sense of place therefore mean a lot in relation to what you call home and how you perceive it and code the traditions, and to sense a place is just as important when you are out, to understand values, traditions, and actions. As Alexandra who likes to walk and talk and listen to how people interact with one another in their different offices." (P. 40).

In the section above we see how the physical surroundings, the placemaking of destinations has a huge impact on the participants experience and connection to a certain place. As even subtle tactile impressions contribute to create a sense of the place visited. Where the Workspace has an impressive visual and somewhat physical reproduction of reality, it misses some of the basic components that affect human instincts.

Horizon Workrooms as a Meeting Place

This section will go into the discussion of the concrete examined digital meeting room.
As mentioned, the endeavour was to test the abilities of one of the newest digital meeting platforms and it took place in the realm of virtual reality. Is it a good replacement for other forms of business meetings? Can it through its spatial environment replace other digital meeting formats and/or the physical meeting? Can it contribute to decrease the climate change through replacing/minimizing physical travel?

The workroom

As described in the method section, none of the participants in the experiment had any deeper experience with virtual and none of them had tried working with the Workrooms platform.

The participants in the experiment were first and foremost overwhelmed by the experience of the digital space, they immersed themselves in the experience, both Alexandra and Michael (P. 35) found the size of the room and the beautiful design attractive in a way which correlates to the findings of Skard et al (2021) in terms of virtual reality´s ability to create vivid simulations.

Benyon focuses on "… digital technologies to enhance the tourist experience" (Benyon, et al. 2013. P 521) and next include "mixed reality interactions" (ibid. p. 522). This could indicate how the use of a medium such as HW in conjunction with traditional media such as mail and video conference could improve the field of business meetings in general, while Akhtar, et al., (2021) see these mixed reality encounters take place through social media, AR or VR in itself.
In the experiment the classic presentation format and digital tools such as whiteboards were used in the VR space. This gave the participants the opportunity to present the presentations from their own computer on a screen in the virtual room. This contributed to make the experience even more immersive. Michael and Mathias (P. 36) were both completely overwhelmed by how big the screen is and the interaction with the tools provided a mixed reality encounter, and enhanced the experience, supporting the claim from Benyon. As the avatars wasn't connected to any of the participants social media accounts, the link between social media and HW was not established It is, though as the inclusion of e.g., LinkedIn could contribute to expand one's network.

The virtual experience was also met with criticism since it missed a degree of realism to be completely convincing as already mentioned by Cheong (1995) and Mathias (P. 37) mentions with his comparison to Lego brick types and the limitations of video use for presentation within the HW.

The avatars

Another factor in terms of the virtual room´s ability to create a convincing experience was the avatars. As you could create any avatar you wanted, and thereby having a visual anonymity had a negative impact in terms of creating confidence among the participants. Daniel had a hard time to involve in the experiment due to this (P. 37).
This visual anonymity resulted in an experienced feeling of being in a computer game or in a cartoon, as it was mentioned by Michael, Mathias, and Alexandra (P. 37).
The sound of one's voice is recognizable, though.

Michael briefly forgot that he was in a virtual world in his second round, which correlates with Baggio & Del Chiappa's (2013) findings of how the virtual and physical elements of the business ecosystem are so interlinked that it is difficult to look at them separate. This briefly state of mind, might have more to do with the voice and presentation that Alexandra did, than the visual impacts of the avatar design. Anyway, it was the predominant experience of the avatars that made him not feel convinced to be present in the virtual world.

The fragmented insight into movement, the lack of facial expression and thereby the lack of feeling of reality is discussed in the next subsection

Yu Li et al. (2021) finds a positive and happy indication of emotions in reliving destinations through VR, but the meeting between the two participants, Daniel, and Joseph, who knew each prior to the experiment, was not only a joyful experience. At first, the visual anonymity

was an obstacle to experience the meeting as a joyful reunion (P. 37). The fact that you spoke with your own voice having a lively conversation, visiting, and exploring the virtual space together, contributed to add some joyfulness to the experience.

While Skards et al. (2021) find that virtual reality can create mental imagery in terms of meeting new destination. But the anonymity as avatar in the workroom led to a very different impression of your meeting partner, than occurred during the physical meeting afterwards. Even though Alexandra thought she could identify the type with whom she typically collaborates, she had also had a completely different mental imagery of him (P. 37).

The virtual space, HW does not manage to build a trusting relationship on its own but can be seen as a supplement to other digital tools, as described in the limitations section. It would also be interesting to use other types of professions that could use the available tools different.

Modalities for business meetings

This section will discuss the capabilities/affordances that the different meeting formats/modalities can perform in different aspects of the meeting. I will use Standaert , Muylle and Basu's (2022) categorization in 4 main purposes for a meeting:
- exchanging information
- making decisions
- communicating sentiments
- building relations

Off course there can be several purposes in play at the same time.

Imbedded in these 4 categories are the following issues, which are not explicitly discussed in the above-mentioned article.
- the range of sensory experiences involved
- the experience of the person/the personality
- the achievement of credibility/trust worthiness
- the precision of and obligation in the message/info/dialogue

These underlying issues contribute to the way the four categories are in play.

Sensory experiences to full extent are the physical meeting where you see, hear, feel and smell; sense in the broad meaning of the word: Read mimic and gesture; hear a voice, being in the same room. As discussed below a full sensory experience is not always necessary to do the work needed in the cooperation/meeting.
But for some matters something will be missing, to the degree that you do not get the feeling of your business partner. An e-mail/text can get you a long way in terms of being precise as the language can be; a phone call/voice can give you another aspect to the

cooperation, sensing the person through the voice: age, gender, the sound of the voice, the oral presentation; video conference adds look and mimic.
In the following, I will discuss how the different meeting formats/modalities can contribute according to the 4 categories above.

We have seen in the findings how the participants ~~both~~ use older technological solutions such as telephone and email, but at the same time supplement the use with video conferencing. We have also seen a differentiation in the use of the above-mentioned media, in relation to their role and the field of work.

In the literature Arnfalk and Kogg (2003) claim, that the medium for communication is determinated by the type of communication that shall be communicated. Moreover, they emphasize the importance of face-to-face meetings to achieve goals with complex content. This point of view is supported by Standaert, Muylle and Basu (2022). Based on empirical research they develop "… a decision-making framework for choosing when and how to meet virtually, based on matching the appropriate communication capabilities with various meeting objectives and taking into account meeting size and duration." (P. 267)

The participants have explained how external factors, such as Covid-19, also have contributed to and changed the use of media. Several participants highlighted how platforms, such as the Microsoft Teams, became essential in their jobs during the pandemic. As Alexandra (P. 23) who experienced a need to use video conference during the pandemic and has experienced a rise in the use after she was able to travel again, but she also emphasizes the need to physically meet people, as it is a part of her service and job description.

Her statement identifies how a possible shift has occurred in the second step of the decision-making framework (Standaert, Muylle and Basu. 2022), on the way one assesses what capabilities are important. These capabilities were factors ~~as~~ like listening to participants' voices and use shared screens, which is all possible during a face-to-face meeting, but only partly with VR, and by video conference. The ability to discern facial expression were found to be lacking during the VR meeting in Horizon, where the participants found that an essential part of the experience was missing.

Another component is the ability to experience body language, and here the HW meeting enabled the participants to experience body language in a partly better way than they had experienced earlier with video conferencing platforms. (Mathias. P. 37).

The VR experience gives opportunity to observe body movement, and that's the only indicator, the arms and the direction of the face there otherwise is static. So, it's different than a video conference call, where one would read the facial expressions and not the body moment (Alexandra, P 38). Her statement may also be characterized by the fact that she has not tried VR before and therefore paid extra attention to how the body movements were, as

that was one of the indicators for her. What is important here is that the HW to a certain degree gives you the body movements and gestures.

Another element from the framework is the ability to experience “co-location” and observe what each other are looking at through head movements. A point is also that you see the presenter as well as the presentation at the same time and make the experience more immersive. (Mathias, P 36.). In this case this virtual world created a new graphic way to the experience co-location.

The sound design in HW had another impact that immolated the experience of co-location as the sound made distance very realistic: you could hear the distance to the persons and the direction they turned when they spoke. So, the experiment’s virtual world created a different experience than the traditional video conference, and a more immersive way for the participants to experience a shared location through its graphic capabilities and audio design measures.

This said about the HW options I will discuss the other possible formats for business meetings in relation to, what you want to achieve, the purpose.

So, based on the purpose, needs and digital options for meetings this scheme is developed by Standaert , Muylle and Basu’s (2022).

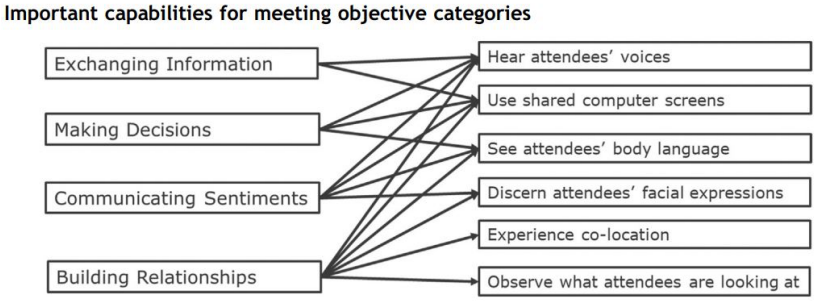

Table 5. Important capabilities for meeting objective categories (Standaert, Muylle and Basu, 2022. P. 271):

They conclude: “Meeting the right way is not simply a matter of using the most sophisticated technology available. While using technology with unnecessary capabilities is not likely to reduce effectiveness, it does consume scarce and costly resources that could be used more effectively to secure capabilities that contribute to meeting effectiveness.” (Ibid, p. 273). This is a very strong argumentation considering the companies’ time and spending costs, but not the least the question of sustainability, minimizing travel pollution.

In the Literature review section, the concept of modal affordance was introduced. This is not in opposition to Standaert, Muylle and Basu’s concept of capabilities, but another way to frame the problematic. Modal affordance might give another angle and a tool for further research in this matter.

So, what are the affordances or capabilities of the different modalities concerning business meetings? I have chosen to extend use Standaert, Muylle and Basu's (2022) range of meeting modalities. First, e-mail, text messaging or other text born modalities together with phone calls is still a very central part of the business communication used every day. So, it should be in package of options. Second, I have found it useful to divide the visual presence into two parts: the kind showing face/mimic and the kind that shows body language. This is due to the options and limitations that VR, in this case HW, and traditional video conferencing, bring. The Physical meeting is also an option, as Standaert, Muylle and Basu's (2022) considers as presented in the Literature Review section.

E-mail/text message or other text-based options
A text is, to some extent, binding and can be very precise. Contracts are written words to sign. You can return to a text. Off course a text can disappear in the most peculiar ways, if you want it too, just not to mention the mink text messages and off course a text can be understood and interpreted differently by the involved persons.
A text gives you fewer clues of your business partner concerning look, age, gender, credibility, personality etc., unless it is part of the correspondence.

Phonecall/audioconferencing
The dialogue can be faster and more fluent and, in this way, more efficient than the text-based communication. The dialogue can clarify through questions and answers in a quick way. The dialogue and the voice can give a sense of the other person via formulation ability; the voice can give clues about age and gender. And it might give clues on trust worthiness. The dialogue, unless it is recorded, does not provide the option to go back and is in this way less binding, depending on mutual memory and the wish to remember the same thing.

Videoconference/telepresence
Regarding the dialogue, see the section above. What is added is shared video with the participants. As mentioned, one normally sees the face, a little of the breast and maybe the hands moving. But this adds a lot to the communication: age, gender, the look of the person, mimic gives you an impression of the partner and hers/his personality. It does not give the feeling of co-location, as you are in frames on the screen (Zoom, Teams).

Virtual reality – Horizon Workrooms (in this case)
The (possible) benefits/challenges of spoken dialogue are as above. You have the feeling of co-location by being in same (virtual) room sitting around the table, talking and watching presentations by the participants. Body language and gestures are to some degree realistic. The avatar is the problem/challenge as you don't see the real person.

Face-to-face – physical meetings

Physical meetings give the options of direct dialogue and impressions of the persons involved. This can as mentioned influence trust worthiness both ways. It is the strongest tool to establish contacts and cooperation.

Here a scheme is enfolded based on the assumed affordances above, Standaert, Muylle and Basu's research and the participants statements regarding their experience in the HW meeting room and business meetings in general. As mentioned, and argued above, the modal affordances and modalities are altered and widened compared to their original scheme.

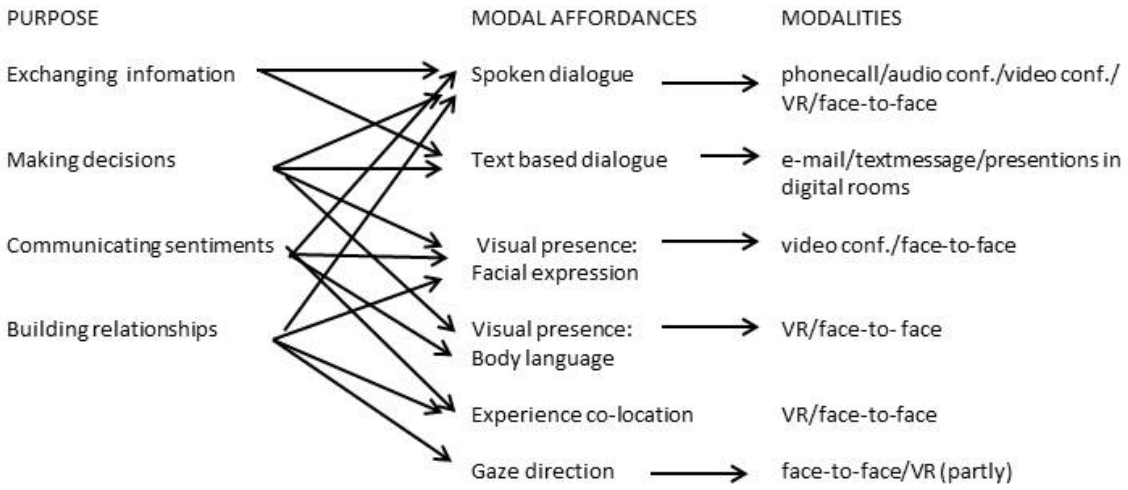

Table 6. Important modal affordances for meeting purposes

It is important to state that all the modalities can support all the purposes to a certain degree. The arrows are indicating the affordances that mostly support the purpose in question and in respect of the fact, that Standaert, Muylle and Basu's (2022) results are based on empirical studies. The scheme can be considered a debatable tool to further investigation.

Conclusion

The endeavour for replacing physical travel with digital solutions can in many respects be achieved and already is. The use of videoconference during the Covid 19 epidemic showed this, but also exposed the weaknesses. Though, less is better than nothing.
The hope for sustainable solutions brought me to the one part of my research question:
Is HW the tool to make business travel redundant? HW provides you with a list of good opportunities (own voice, partly body language, co-location, presentations in the common room), but it does not give you the face and body that is crucial in establishing relationships

and trust. The avatar is too anonymous and arbitrary and if you don't know the partners ahead, you don't have a chance to know if the partner has tried to create an avatar that is so close to the look as possible or not. For this reason, the video conferencing might in certain cases be the better alternative, although you miss the partly body language and the co-location found in HW.
So, in the ideal world with no emission problems, if you want to establish professional networks, learn to know your partner as a person and build mutual trust, the physical meeting is still hard to overcome.

In search of other digital solutions, that could diminish the need for travelling and still fulfil the purpose of the meeting (more or less), I have tried to establish an overview of the optional meeting platforms (modalities) and their capabilities (affordances) developing Standaert , Muylle and Basu's (2022) results further. This can work as a tool for companies to choose the most suitable platform for meetings taken the actual conditions (costs, time spending, climate etc.) into account.

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