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Alternative spatial integrity in video chat
In search of (un)mediated particularities of communicative space

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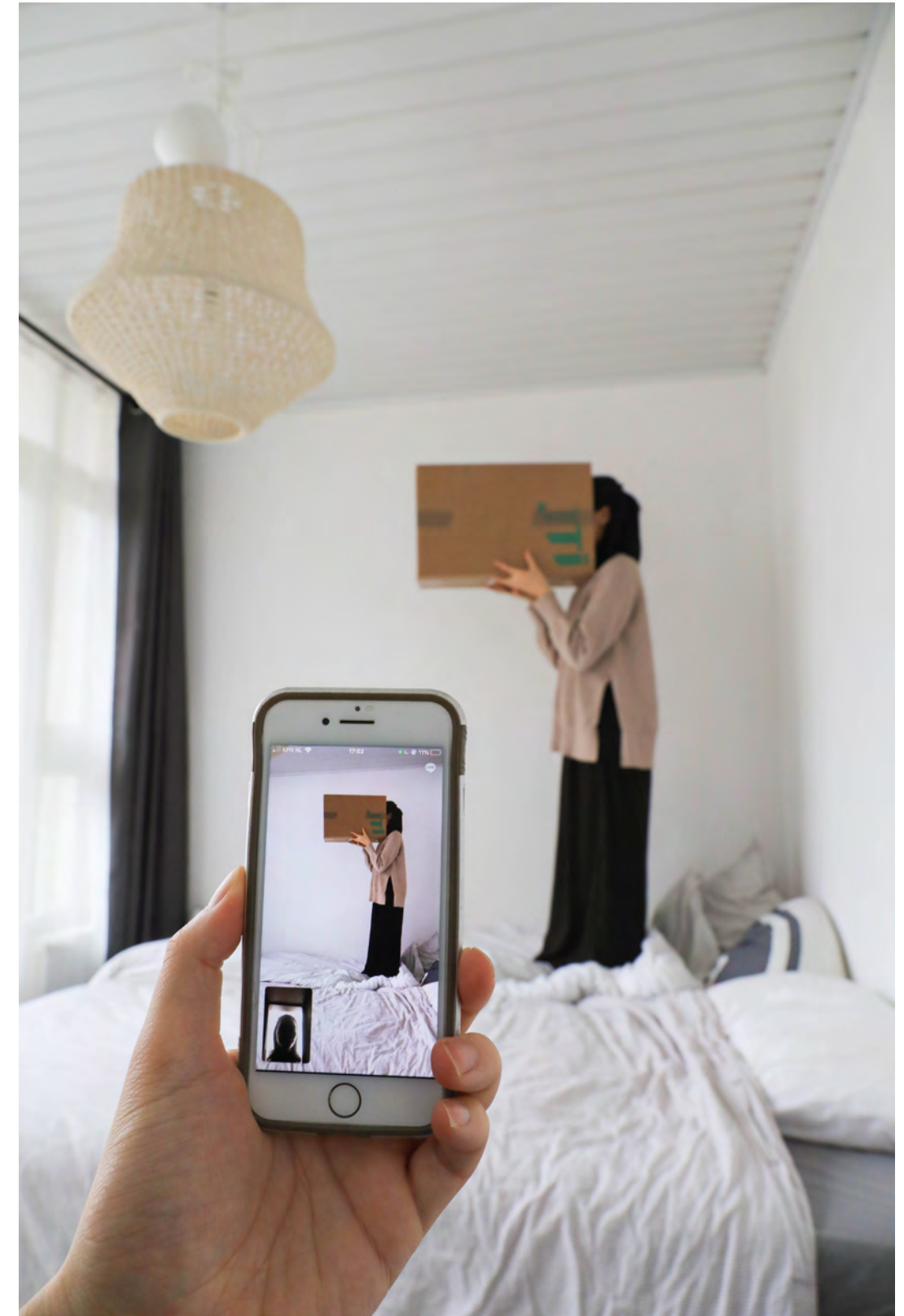of: Master of Arts in Fine Art & Design: Lens-Based Media

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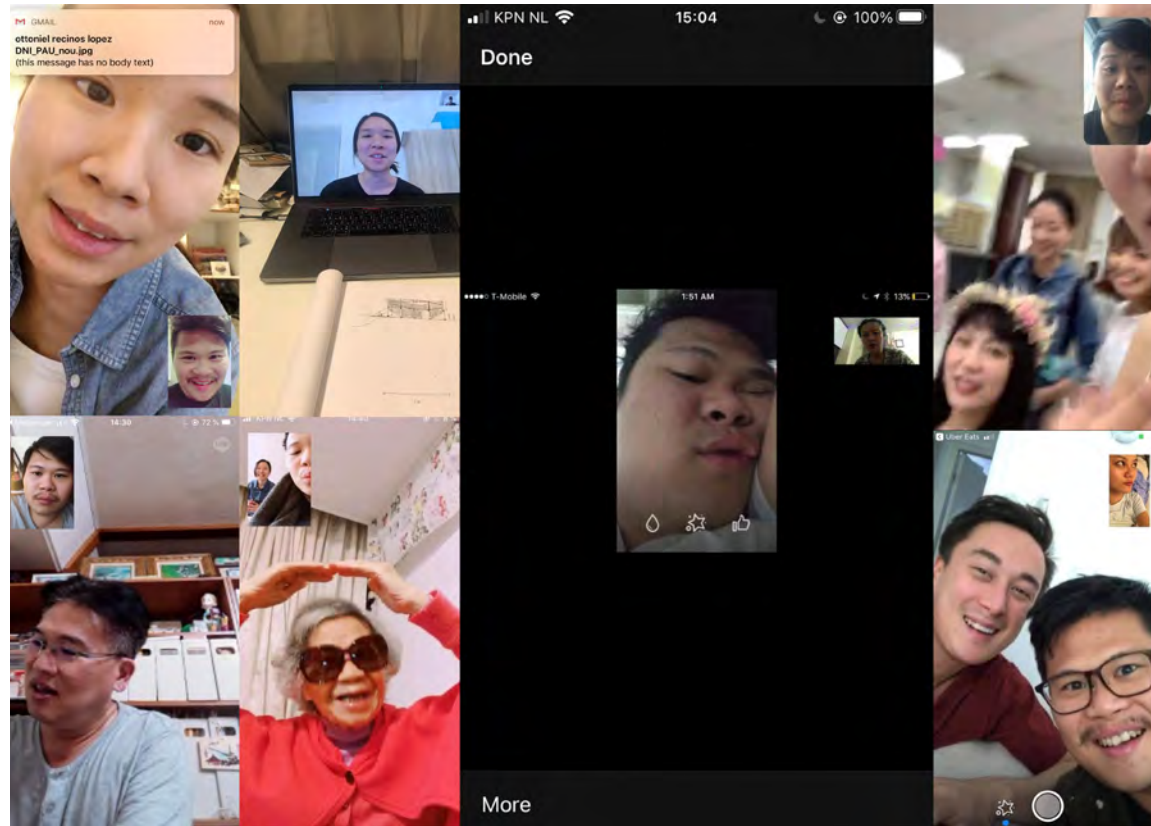Second Reader: Soobramanien, N.S. (Natasha)
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Figure 1-The college of my video chats (Chiang, 2020)

Background

This thesis is the practical report that I use to document and reflect on my research. This merges two methodologies: architectural design and artistic practice. The framework presents my practice-based research into the (im) possibilities of digitally mediated emotional connection between geographically distanced people who rely on web-based technologies to maintain their friendships and relationships. I preface this discussion with an account of explorations of telepresence in video art, with a specific focus on video artists in the '70s who have engaged with notions of embodiment, space, and time in their works.

Throughout I present my own research as a series of experiments. I synthesise both strands of my discussion - critical context of early video artists and the documentation of my practice-based research.

Reflecting on my practice, I realized that I subconsciously increase or emphasize the emotional connection in the human-computer relationship. This made me realize that I was actually looking for the missing human connection. I am a person who is dominated by contemporary digital technology such as cell phones and the internet, but I also want to control it. In my experience, my perception of place and time iws bewildered by the immediate connectivity of modern technologies of telepresence. While I am doing a video chat, I often don't know where I am, how to get along with others, and express emotions with people on the other end of the screen. In modern times, I can hang remotely with a lover by connecting through advanced telepresence technology - Facetime or Skype. However, the actual physical distance still exists. In this sense, we still can't live in the same city, we still can't touch each other, and our actions are still limited after disconnection from the internet . For example, we still can't meet in the same supermarket or watch the same clouds when we are offline. This feeling of being partially connected but partially out of touch always troubles me and there seems to be something missing or mutated in it.

In the first half year of the lens based master course I developed a new methodology, whereby I try to combine a design methodology with artistic practice. Design thinking was already firmly rooted in my mind. In the past ten years, I practiced this way of thinking in an academic discipline and within a professional design project as an architectural designer. At present, it seems that solution-oriented architectural design methodologies are quite efficient, due to the fact that it fulfills the specific requirements given by the context. As a result, it can rapidly produce a solution. However, sometimes this kind of design is restricted by the nature of the need for a commissioner. It focuses more on the real need but does not address the possibility that people could be inspired by the subtext of the space. From my experience of architectural design, I found there is a lack of emotional connection and sensation (a sense of touching someone's heart) in the later stage of development. In this thesis, I will use the discourse of seeing the design process as open-ended, as a framework to integrate into my creative process in order to find relevance closer to the heart (rather than focus on the discourse on the nature of architectural design which creates an end-result in its creative process).

In addition to the transition of working methodologies, as described above, the practical part of my technical research focuses on the human perception and self-awareness of human-machine relationships, of computing interfaces, mechanical, and emotional phenomena. More precisely, the hidden relationships that are subconsciously embedded in daily life. For example, recently (at the end of 2020), the virtual background effect is going viral on video conferencing tools such as Zoom. From time to time, we use a special effect to make up our appearance and even relocate ourselves to somewhere that seems real but uncorporeal. In this sense, we change and replicate the place we situated subconsciously and conveniently. Sometimes, it is enjoyable to shift where I am on social media but I feel lost in this diverse world. I wonder what is the real me in the time I am online? Where is the place I really situate in the period when I am online? In order to understand this, I want to understand where I am in the relationship between the digital and reality.

Thesis statement and framework:
A sense of integrous place and video chat

In this Covid time (April 2020-present) the functionality of telecommunication is not only important for teleworking and maintaining romantic or family relationships but also for the basic need for social interaction, such as hanging out, dining, partying, or watching TV. In this sense, the concept of video "Chat" imperceptibly becomes video "Living".

For me, the traditional face-to-face communicative space has the limited corporeal boundary which I could perceive visually and physically such as when I chat with my friend at a bar. I knew she sat next to me and our table was right next to the window. This setting makes me anchor to where I situated, a sense of integrierte place that evoked a feeling that I was in the same place as my friend. In traditional settings it is easy to perceive the integrity of a communicative space by the given physical context. However, some particularity of integrated place has changed by the immediacy of development of Information and Communications Technology Services (ICTs). Instead of traveling a hundred miles to meet a friend in person, I now meet them on the cellphone screen. In this sense, the integrity of space has been mediated by a specific medium. The space we shared is partially virtualized. In the experiments discussed in this text, I will investigate several (un) mediated particularities that I consider as a criteria of forming the integrity of a communicative space. The research framework and my experiments is provided by early video art and more recent telepresence art.

These two art genres are recent arrivals on the art family tree. The former is a discourse generated by the blossom of communication and broadcasting technology, the latter is a responsive call towards both corporeal and incorporeal issues provoked by the rapid development of ICTs. Obviously, compared to other art forms, they both have a close relationship with the development of technology and technical systems. The second reason is video art has the potential to create dishabituation (or an uncanny experience) in daily relationships between us and ICTs. As MARISA GÓMEZ(2015) said:

> I consider this approach essential because artistic practices, as symbolic constructions of society, are – and have always been – regulators of the world conceptions, as they propose critical points of view and practical and aesthetic experiences that, straying from the everyday life, allow new glances at reality. This becomes evident in our current technologically mediated environment, as the artistic practices using ICTs as creative means denaturalize our interactions with them. In this way, they open new possibilities for reflection about their impact over culture.

Figure 2: Cover of Radical Software, Volume I, Number 1 (1970)

Information and Communications Technology (ICT) as a creative medium

In order to articulate the potential of creating the dishabituation I mentioned above, in this chapter, I will discuss the art pioneers who address this point, including Nam June Paik (1932-2006) and several artists associated with the video journal Radical Software (1970-1975) .
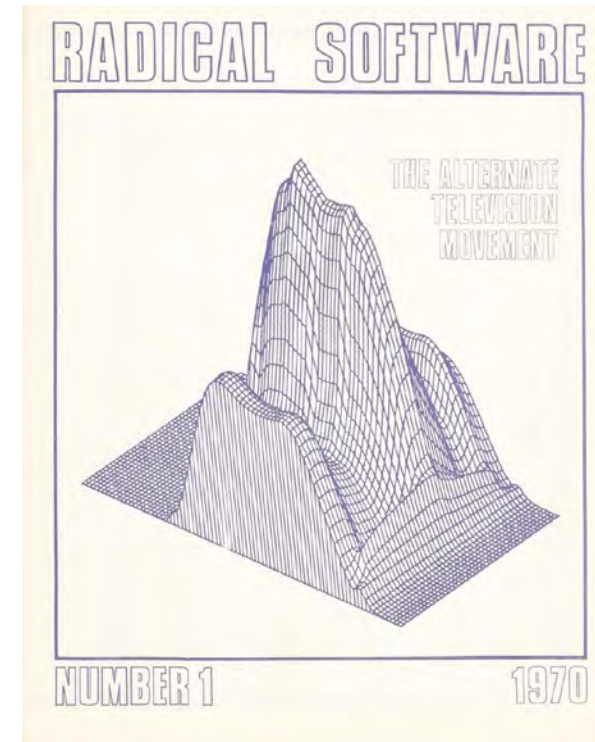
In 1966 Nam June Paik (1932-2006) created an interactive installation- Participation TV(1966) in which audiences could speak into microphones to create new forms, this time on a colour set. This was one of the oldest audience participatory art pieces, it was the moment that Paik began to state the importance of audience participation "*as a mode of reducing the inherent passivity of television viewing, rather than simply as a source of indeterminacy.*" (Marina Isgro, 2019) The notion of activating the audience will then be shared by a wide community of artists, including such works as Richard Serra and Carlota Fay Schoolman's single channel video art piece -Television Delivers People (1973).

Figure 3: Three Camera Participation / Participation TV, (1969 / 2001)

You are the end product.

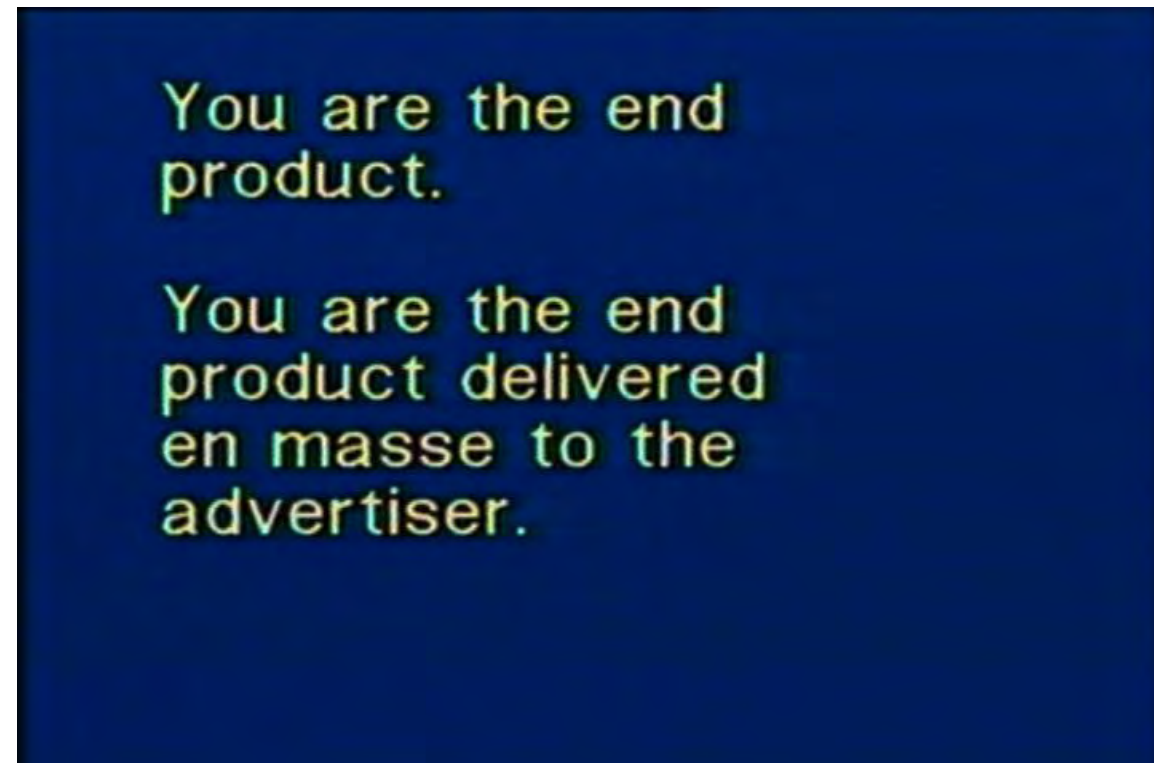You are the end product delivered en masse to the advertiser.

Figure 4: Television Delivers People (Richard Serra and Carlota Fay Schoolman, 1973)

In the early 1970s, a group of media activists also contributed their critical voice by publishing the Radical Software video journal, edited by Beryl Korot and Phyllis Gershuny (Segura) and published by the Raindance Foundation from 1970 to 1974. Radical Software addressed the political issues around new technologies and offered alternative inspirations on cutting edge media such as Cable, CCTV and portable video systems. They considered TV to be a sophisticated tool for social control, and advocated:

> "reversing the process of television, giving people access to the tools of production and distribution, giving them control of their own images and, by implication, their own lives - giving them permission to originate information on the issues most meaningful to themselves - might help accelerate social and cultural change."(Radical Software, Volume I, Number 1, 1970)

Besides more political aspects, Dan Graham's early video works explored the new possibilities in viewer's visual and spatial perception within video media by developing a series of Time Delay Rooms (Dan Graham 1974). In these projects, the video-looping skills were applied in separated spaces where spectators could experience and interact with the delayed sound and images of themselves or other audiences in different spaces.

This approach to early video systems provides proof that this technology-related art form, video art, has the power to shift our habitual position and allows us to re-evaluate this dependent relation with equipment.

Video devices, Space and Body

Figure 5:Sony DV-2400 Portapak (1967)

It is clear that video art is a critique of mass media and ICTs which provides a critical position to the daily ICTs users. However, at this point, it is not enough for me to articulate the (un)mediated particularities of communicative space.

In my opinion, these particularities include the (un)corporeal spatial context (such as size, texture, continuous topology, etc.), the physical and virtual position of the interlocutors. In this chapter, I will explore the reason why the communicative space changes in the technical and the spatial manner. I will then analyze several cases of the video art of the 1970s – telepresence art, and the precursors to the internet art– in order to see how artists reacted to this emerging technology-video camera and screen (the two fundamental elements of video-chat).

In terms of the particularities of space we perceived, and the way we perceive a communicative space has been changed. On the one hand, instead of sharing the same place with the same continuous outline and texture, the actual places which are geographically separated have been connected by the cell phone or PC. In this sense, the space we perceived is physically different but we still shared incorporeally. On the other hand, in the traditional face-to-face conversation, I could perceive the size and texture of this space we situated by naked eye and my limbs. While during video chat, the interlocutors not only perceive the space they situated through their somatosensory system, but also construct the understanding of space on the other end by decoding the environmental information that is captured by the camera then transmitted via the internet.

Figure 6: Sony TCV-2010(1966)

Figure 7: Outer and Inner Space(1965)

In technical terms, I consider the video-chat system on smartphones as a media hub which combines the functionality of old communicative media such as video cameras and display systems. The video system could capture where I am, my image, and simultaneously display it on the screen both locally and remotely. Compared to the face-to-face conversation, during video chat the space we shared are (un)corporeal rather than bonded by a boundary in physical space. The images(existences) of the interlocutors exist on two ends of the screen or multiple places. The information we need to perceive is becoming more complex. This expansion of awareness occurred just after the advent of the first lightweight personal portable video system in 1967, the Sony DV-2400 Portapak. People could video themselves, and playback their own moving image in multiple locations. Moreover, people could create their own video system. The spatial perception that could only be acquired by traditional static paintings or immersive experiences could now be dynamically rendered. People could easily see a moving image of others or themselves on the screen. In 1965 Paik had filmed Pope Paul VI riding in an open-top car down Fifth Avenue in New York (MAMCO GENEVA 2019). Paik filmed the scene with the first commercially available portable video camera, the Sony CV-2000.(this was the previous and bulky version of the Sony DV-2400 Portapak) Then the videotape was shown at the Fluxus event in Soho that evening. It allows the audience to witness the city scenery from that morning. This is considered to be the one of the first video artworks in history, expanding the visual experience of event participants. In the same year Andy Warhol's Outer and Inner Space (1965), also examined this possibility to destabilise the integrity of the subject by showing a scene in which Edie Sedgwick encounters her own image. This film was considered as an early recording of the unnerving bodily experience of "telepresence"(Rushton, 2021).

As the personal video system redefined video devices as a communication medium and introduced a new way of looking at oneself (existence, physical body) and position in time and space. A group of artists made corresponding reactions towards this phenomenon. Frank Gillette was one of the first artists to explore video as a tool for social and political change.

In the 1969 exhibition Television as a Creative Medium, Gillette and Ira Schneider's Wipe Cycle (1969) used CCTV cameras and television monitors to juxtapose the audience's real-time images, videos of delayed audience's real-time images, and television programs, on nine different monitors. In four cycles, the image drifted from one monitor to the other with a delay of eight or sixteen seconds. Every two seconds in the counterclockwise direction, a grey light pulse would clear all other images. This work expands the relationship between the audience and the artwork by making the audience a part of the information flow, the audience's own image is broadcast on the screen, disrupting the unilateral information flow of the TV, as a result of this work "*expanded the relation of the audience to the artwork, from passive receptors to actual participants.*"(K. Horsfield and L. Hilderbrand, 2006)

After this point, people started to use the term "media ecology", As Raymond Arlo pointed out in Radical Software, media ecology is" *the study of a medium of communication and its affect upon other media/society... The study of people and their affect upon media/society . The study of the affect of media/society upon people*" (Raymond Arlo, 1971). During this period of time, people developed an awareness that as consumers, we need to take a critical position to re-examine our position in this new type of information system. As the first issue of Radical Software states:

Power is no longer measured in land, labor, or capital, but by access to information and the means to disseminate it . As long as the most powerful tools (not weapons) are in the hands of those who would hoard them, no alternative cultural vision can succeed .Unless we design and implement alternate information structures which transcend and reconfigure the existing ones, other alternate systems and life styles will be no more than products of the existing process.

Figure 8:Wipe Cycle (1969)

At the same time, video artists developed series of participatory installation which urged the audience to take a critical view on social and perceptual change due to the emergence of video media and ICTs. In Paul Ryan's Everyman's Moebius Strip (1969-72), Participants are invited to follow instructions on a pre-recorded tape. Participants then watch their own video taped performances . While watching their own videos, they are also examining their own existence in the past. Dan Graham's Opposing Mirrors and Video Monitors On Time Delay (1974) also invited participants into the work. The camera and the screen are arranged in groups. Two cameras placed at both ends are used to capture the reflection of the opposite mirror, and the audience who is watching the screens in the reflection area. The screen continuously played a video with a five-second delay from the view of the opposite camera. When the audience stands in front of the screen and looks towards the mirror, they can see three layers of scenery. The first one is the continuous and real-time reflections of their surroundings. The second one shows their existence as observers and as objects being observed. Finally, they can see the area in which they were standing, now reflected from the opposite mirror with a five-seconds delay.

The superposition of this experience creates a concentrated dual perception in the constantly changing environment and/or audience. Graham's work addresses the idea that the viewer (or participant) is both the perceived (object) and the perceiving (subject). Moreover, placing the audience in a tangible field created by recomposition of the video equipment, also breaks the unidimensional information flow, as Frank Gillette had done, freeing the audience from the shackles of being a passive receiver.

Figure 10: Opposing Mirrors and Video Monitors On Time Delay, a general view of the installation of the same piece at Sperone- Westwater-Fischer Gallery in New York. (1974)

Figure 11: Opposing Mirrors and Video Monitors On Time Delay, the views of the opposing monitors(1974)

Figure 9 :Everyman's Moebius Strip (1969-72)

Figure 12: Students and tutor in Zoom party mode (2021)

Response to the site

Paul Ryan's Everyman's Moebius Strip, Dan Graham's Opposing Mirrors and Video Monitors On Time Delay, all show inspiring instances of the deconstruction of the one-way relationship of the information flow, in order to redefine the subject-object relationship between the audience and the video system. They all create a dual or multi-level perception (or perception standard), and then compare these two different types of perceptions to generate an uncanny feeling. This uncanny feeling is what triggers the audience's imagination.

Paul Ryan uses the instructions in the pre-recorded film to generate a preset position and to force the audience to follow it, using the playback to allow the audience to witness the fact that she/he is controlled by the medium. Frank Gillette and Ira Schneider's Wipe Cycle creates a perception of the site through real-time playback of the surrounding environment. The use of pre-recorded TV program clips, as well as the delay and erasure of different pictures created a multi-perceptual collage. Dan Graham created a physical space to magnify the audience's perception of the physical nature of the environment.Film, real-time playback and delayed footage of the site, allowed for the audience to have multiple perceptions of the environment. At the same time, this space also provides a field for the audiences to respond to the delayed footage with their limbs and body movements, allowing them to explore the space and their relationship with it in different temporal dimensions.

They all invite the audience to enter a physical space constructed by the video system and its physical context. By emphasizing the physicality of the site(by which I mean an actual geographical location with all its particularities), the audience can understand where they are situated.

Such experiences can urge me to perceive the physicality of a space. I can use my corporeal body to connect with a current location. Emphasizing the physicality of a space can anchor me in terms of where and when. However, with the development of the Internet, the elements of this "site". have quietly changed. The two people waving (in Figure above) in Dan Graham's opposing mirrors room can now be thousands of miles apart. The continuity of physicality of the "site" is cut off. We don't chat under the same roof. In this era, we can hang out in a virtual space (Zoom party mode).

The rise of telepresence art and cyber art is precisely a response to the changing materiality of the "site". This kind of response can be divided into two voices. The former's physical place still exists, but the continuous physicality is replaced and mediated by the Internet(see Appendix A). In the latter, the physical place is no longer there. Through digital modeling, the designer and artist create a three-dimensional space on the screen(see Appendix B).

In summary, in most of the practices of 70s video artists, spatial physicality is only used as a strategy that triggers audiences' uncanny feelings. In the case of telepresence art, spatial physicality is deliberately preserved. The media is designated as an agent, responsible for mediating our information of body's perception and feedback and extending the physical ability and accessibility to the remote site. In contrast, in the practice of cyber art, the physicality of our bodies and space is fully mediated by the media

My experiment in search of
a sense of integrierte place within video chat

According to the current situation, technology cannot completely replace our biological bodies. At the moment when we picked up the mobile phone to have a video-chat, the hand still holds the mobile phone and faces the camera towards our face by the contraction of the muscles. At the same time, the naked eye looks at a picture juxtaposed by the recipient's image, the recipient's environment, and the image of space we are situated from outside of the screen. In this sense, this tangible connection still exists. In this chapter, I will assume that physical space still exists, focusing on the unfolding of the (un)mediated particularities of communicative space within the video chat scenario. Meanwhile, I will also present my field notes that could articulate my first-handed feelings during each experiment.

On-site experience that subverts the habitual situation

I will begin by elaborating three case studies. These three cases all use physical space and juxtaposed different timelines to enhance the audience's perception of the current "site".

The Present Project (Yu-Ching Chiang, 2020-21) is my first attempt to question the spatiotemporal dislocation and liveness within our up-to-date video calling experience. In this performative movie, I took advantage of the site since it is one of the cinema halls in the Amsterdam EYE film museum. I mixed the live performance and live footage in cinema, to challenge the habitual expectancy of the audience towards cinema that only shows pre-recorded footage. I conveyed real-time footage of video calling into a movie. It is interesting to note that the initial aim of this project is to discourse the concept of time (present/past) in a cinematic context, but the extra reflections on dislocation also become a valuable reference for my later research. At the beginning of the movie, the screen presents two scenes in parallel that two protagonists looking at each other via

Figure 13 :The Present Project (2020), the moment when audiences encountered thei own image on the cinema screen

Figure 14 :The Present Project (2020), the closeup

video chat like we do from time to time. Protagonist A sits in a cinema while protagonist B seems like in a coffee shop a place far from here. At this moment, the spectators will have a mixed question of when and where the scenario on screen takes place. In the second stage of the film, protagonist A stands up from the group of audience and strolling around the audience while protagonist B leaves the coffee shop towards the cinema where is screening the film. At this point, some spectators will notice one of the scenes actually takes place on-site and it is live. In the third stage of the film, protagonist B opens the door and walks into the cinema. It is the moment that the mystery of mixed sense of place and timelines of the film unfolds. In the last stage, two protagonists walk to the front of the spectators, they share eye contact and smile in person corporeally and digitally at the same time. At the very last moment of the film, they both turn their front camera towards spectators, in this moment, spectators become the protagonists, protagonists become spectators. The place once belongs to the past in the film becomes on-site and becomes present tense. The incorporeal of cinematic space becomes corporeal.

Using timeline collages to make viewers experience the present is also a technique often used in the history of video art. Looking into the spectrum of video art, the juxtaposition of the timeline has been used to alter the viewer's spatial perception. For example in the early '70s. In Present Continuous Past(s)(Dan Graham, 1974), by introducing the liveness of image into the spatial context which alters visual and spatial perceptions by overlapping the delayed live and mirror images. In a room covered with mirrors, a closed-circuit video camera, and one wall-size screen mounted on the wall that opposed the mirror wall. The wall-size screen presents the camera view with 8 seconds delay. The audience confronted their own image with an 8-24 seconds delay from the continued illusive images of the mirror reflection on the screen. Each layer of mirror reflection creates one section of the Present that exists and by juxtaposing them together. Graham successfully shows a possibility to use live video looping to juxtapose several timelines of the video in one place. Another important point is that Dan uses physical space to highlight the tangible boundary of this"site", and also creates a sense of multiple places through repeated mapping of a single place.
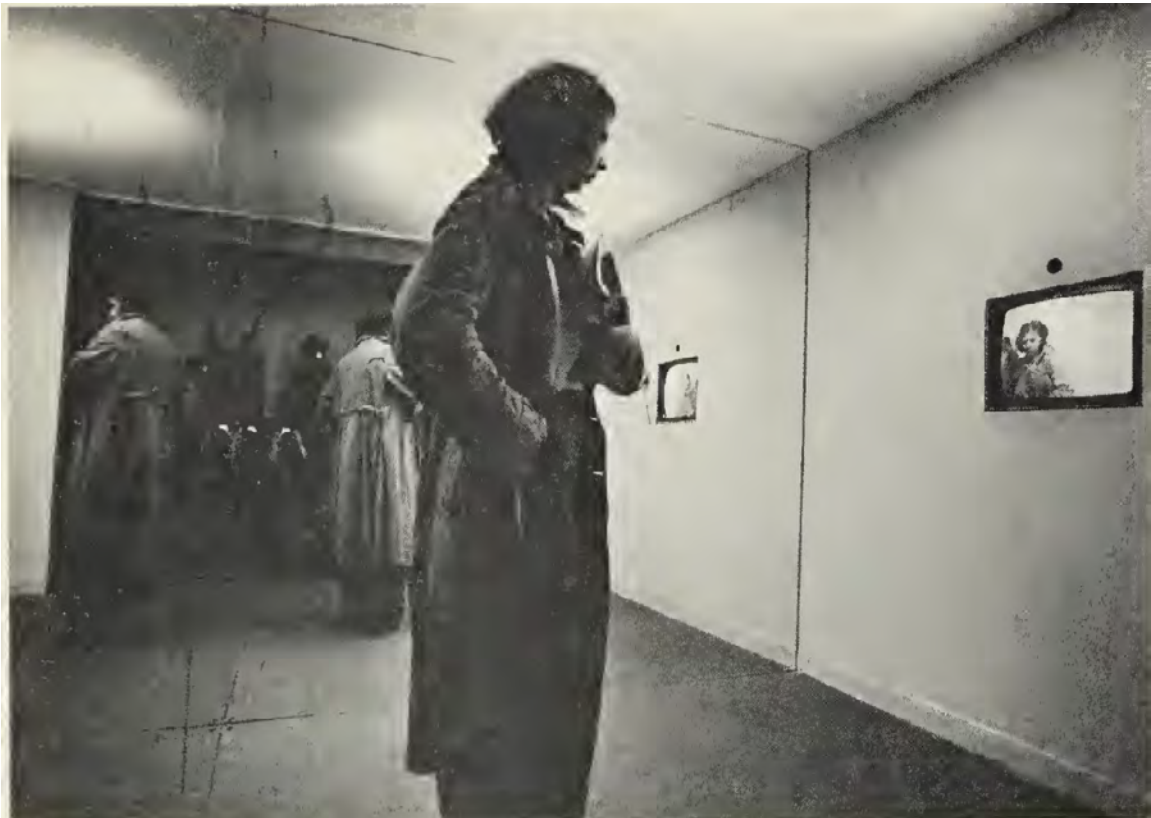

Figure 15:Photo showing installation of Present Continuous Past(s)' at exhibition Projekt (1974) in Cologne, Kunsthalle
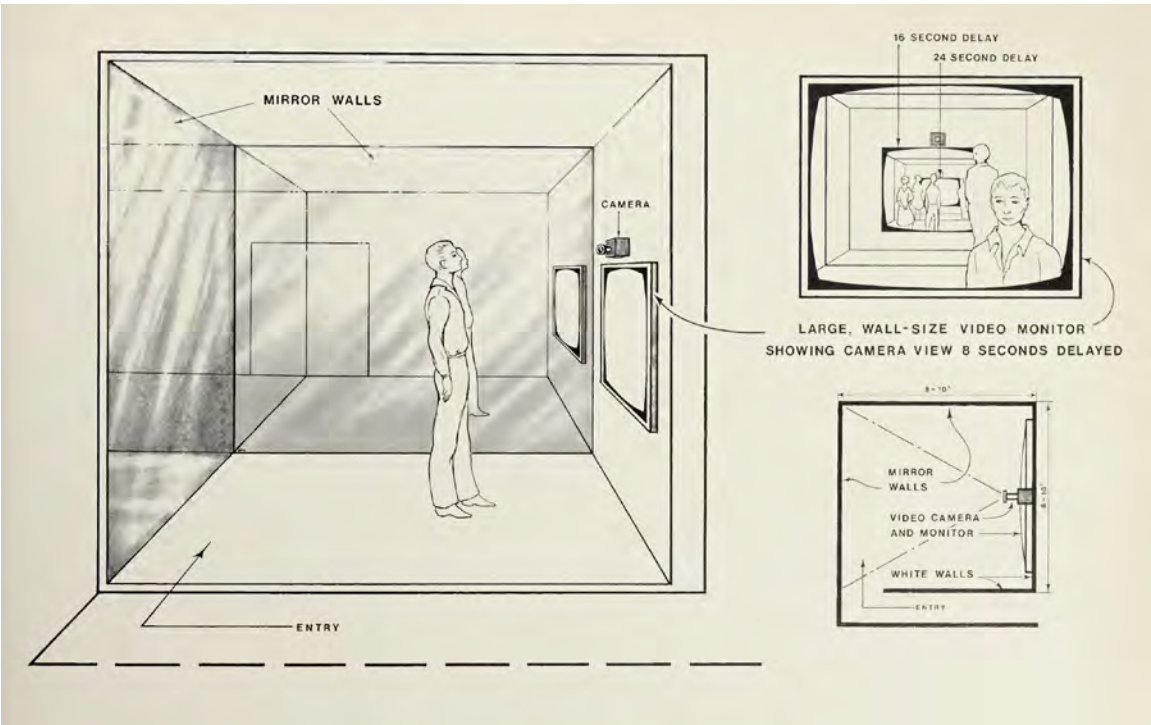

Figure 16:Present continuous past(s) (1974), diagram of the project

For the more recent example of the juxtaposition of the timeline, A Night Walk for Edinburgh (2019) is an inspiring project that utilized cell-phone and Augmented Reality(AR) to explore the new frontier to juxtaposed past and experience in wider spatial context which is the street of the old Edinburgh. Janet Cardiff and George Bures Miller create the collage of pre-recorded video, what the audience sees on-site, and the room for imagination created by the intentional blank space of the pre-recorded video. The pre-recorded Edinburgh city scenes and location-related plots were played on mobile phones, and the audience was invited to take their mobile phones to follow the pre-recorded video and voice strolling through the locations. The audience will watch the scenes that happened right where they are now in the pre-recorded film and the scenes that happened around them in real-time. When the visitors arrive at a public house. In the meantime, a historic photo of a public house appeared in the film. At the very moment, three public houses appearing in different tenses appear in your vision. Then, the people hanging their clothes in the yard next to the house began to dance, however when you look at the clothesline beside you, only the clothesline is empty. The author uses images of multiple tenses to be embedded in the same "view", making the past and the present exist in parallel.

In general, in terms of the audience's position of these 3 works. They all invite the audience into the site where the action of a juxtaposition of the timeline takes place. To alter and enhance the perception of the coexisting timeline, They alter the timeline by switching and challenging the notion of pre-recording and live video. And most importantly, they all create the on-site experience for the audience which indicates the being here of the audience. In this sense, the participants become part of a mixed timeline, in which they see what they perceive with their intimate body become present tense. I consider this on-site experience is important for triggering the unusual perception of the audiences. In daily life, we often tend to believe what we see and even more willing to trust the place/situation we are actually in. The on-site experience situates the audiences in a specific position of the work(the specific timeline) which subverts the habitual situation to create possibilities to perceive new spatiotemporal relationships in our normal life.

Figure 17: A Night Walk for Edinburgh (2019)

Unfolds the multiple presence of mine in various locations

To some degree, this new spatiotemporal relationship has triggered my imagination that I could be present in multiple locations simultaneously. The feelings that I do mentally connect to the other end via a screen but my corporeal body seems can not keep up. It seems like it is stuck in the place where I dial the phone and call. Moreover, in timewise, I wonder what else more could I witness in the duration of video chat?

In The Moment That I Cannot See (Yu-Ching, 2020) is a multi-channel video recording. Cameras mounted around my body captured and witnessed the moments and scenes coexisting in my surrounding. It explored the scene that happens simultaneously around me. Here I would not try to replicate myself in multiple locations, I am more interested in searching for the simultaneous and invisible (the scene not to be seen from the cellphone screen) myself and the place in which my physical body is situated.

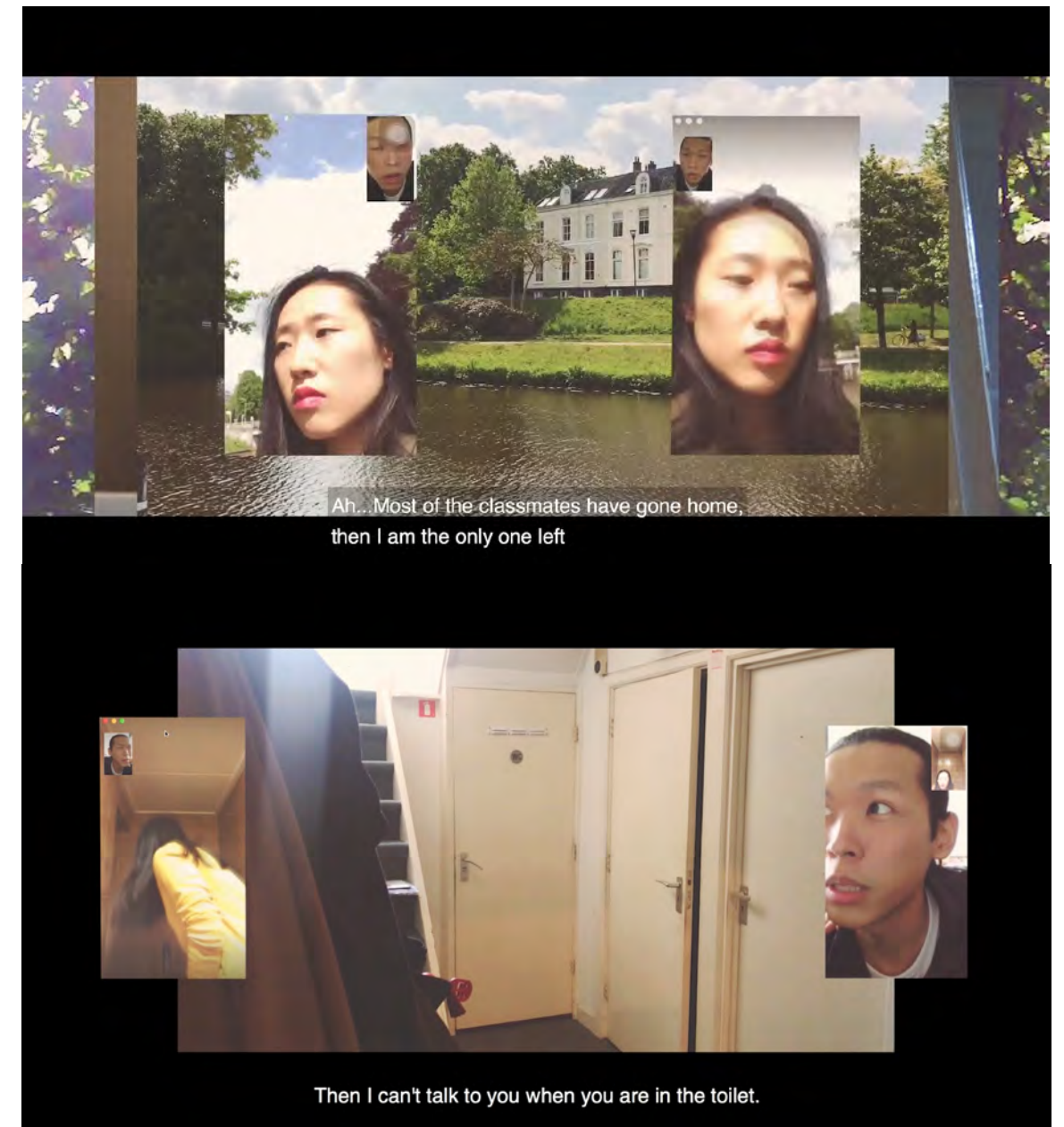Figure 18: The Moment That I Cannot See (2020), the collage of scenes

Figure 19: Mrs. Day's Twenty Minutes (2020), a collage of scenes when Mrs. Day going to the supermarket, and a scene when Mrs. Day chatting her friend when she is in the toilet

In Mrs. Day's Twenty Minutes (Yu-Ching, 2020), I explore the weird fantasy that I could simultaneously exist in multiple locations. I project myself as the protagonist in the film. To witness my daily life and the part of myself that others could see but I could not. This film depicts Mrs.Day's twenty minutes of her ordinary day. This is a real-time movie about her daily life, recording those perspectives that she can't see, but it still belongs to a fragment of her life. The movie is composed of multiple simultaneously captured footage on the same timeline. Seeing the perspective behind her, the top of her head, the third person, etc., shows the moments that exist simultaneously but are unseen to the individual.This is a real-time movie about her daily life, recording those

perspectives that she can't see, but it still belongs to a fragment of her life. The movie is composed of multiple simultaneously captured footage on the same timeline. Seeing the perspective behind her, the top of her head, the third person, etc., shows the moments that exist simultaneously but are unseen to the individual. I intentionally left blank for the narrative, there are no dramatic events that happen only the dull and normal one stays. I would like to emphasize the fact that sometimes life is just not tithing big happens and even dull. She does ordinary holiday baking at home, occasionally chatting with friends from different cities, and shopping in the nearby supermarket. Mrs. Day's daily life is no different from our lives, composed of trivial events in life. As a reference, I use the same technique of the real-time long static shots from Chantal Akerman's Jeanne Dielman, 23, quai du Commerce, 1080 Bruxelles. *Much of the action of the film is shot in "real-time." If it takes Jeanne fifteen minutes to peel a batch of potatoes, then the fifteen minutes are presented on the screen without a cut. (Jayne Loader 1977)* In my film, the real-time 20 mins with any detail of the protagonist all present and even exposed to the audience, I would like to present the time she experienced respectfully and authentically. Likes Akerman said:

"was the only way to shoot the film - to avoid cutting the action in a hundred places, to look carefully and to be respectful. The framing was meant to respect her space, her, and her gestures within it"(Wakeman, John, 1987)

It is worth noting that there is some inspiring feedback after the audience watched a daily video-chat user's life unfold in this authentic but exposed way. Some felt insecure when seeing the multiple views of cameras as like a stalker would view it. Others pointed out that the toilet scene surprised them by its level of exposure in terms of privacy. After making these two experimental video work, I considered this method of jupataxion the real-time footage did have the power to multiply my presence at the same time. In other words, it offered me a chance to witness where I am (both virtually and corporeally) when I do video chat. And it reveals the in-between space of two communicative spaces. (in Mrs. Day's Twenty Minutes, Mrs. Day and her friend were situated in separate spaces, the video collage shows the in-between space). It also shows that the spatial tangibility of communicative space is mediated and fragmented into a series of individual spaces.

Figure 20: Jeanne Dielman, 23, quai du Commerce, 1080 Bruxelles

Figure 21: Mrs. Day's Twenty Minutes (2020), a scene when Mrs. Day cycling across the town which composed by three perspectives of cameras

(Un)mediated particularities of communicative space

In response to the fragmentation of the spatial tangibility of communicative space, in the following experiments several spatial particularities have been researched, such as geometry, texture, etc. The experiments are implemented with daily scenarios such as dining together, which will fit more with my intention of exploring the video "Living" situation.

The Table Games (2020)
The extension of spatial brightness, body , and sound

The experiment is one of my original inspirations for exploring the sense of place and dislocation during video chat. This is a casual setting that we want to hang out but I could only join them via video chat when I was in Rotterdam and my friends were in Zwolle. We spent almost 7 hours in the chat. We were doing dinner, doing the shit talk, and playing Jenga and card games together. I participated in the game through the view of the IPad and requested one of my friends become my physical representative to move the Janga. We started at around five pm when there was still daylight in my room, we ended the chat at around midnight when there was no light in my room. As time went by, my room turned into darkness. The only thing that grabbed my attention is the bright screen. I gradually became more focused on the screen. I projected myself into the place on the screen. I noticed that once the reference points decreased you will gradually lose the coordination and awareness of being the place where you are doing the video chat. Moreover, I found the voice interesting in the time we are video-chatting. The voice could fill the whole space immediately once you open the speaker and turn the volume on. I noticed an interesting fact that I could still feel like we are in the same room even without seeing each other from the screen. And sometimes the sense of being together becomes authentic when you look around your surroundings with the voice from the video chat as an ambient sound. I felt like they were somewhere in my house but we were not in the same room. I was just distracted by other things and looked around the house and we still play games together.

After finishing the Table Games (2020), I started to grow interested in video chat with not only chatting but other daily activities. I consider it might help me understand my personal feeling towards this experience of Tele-living.

Figure 22: The Table Games (2020) , I chat with my friend remotely
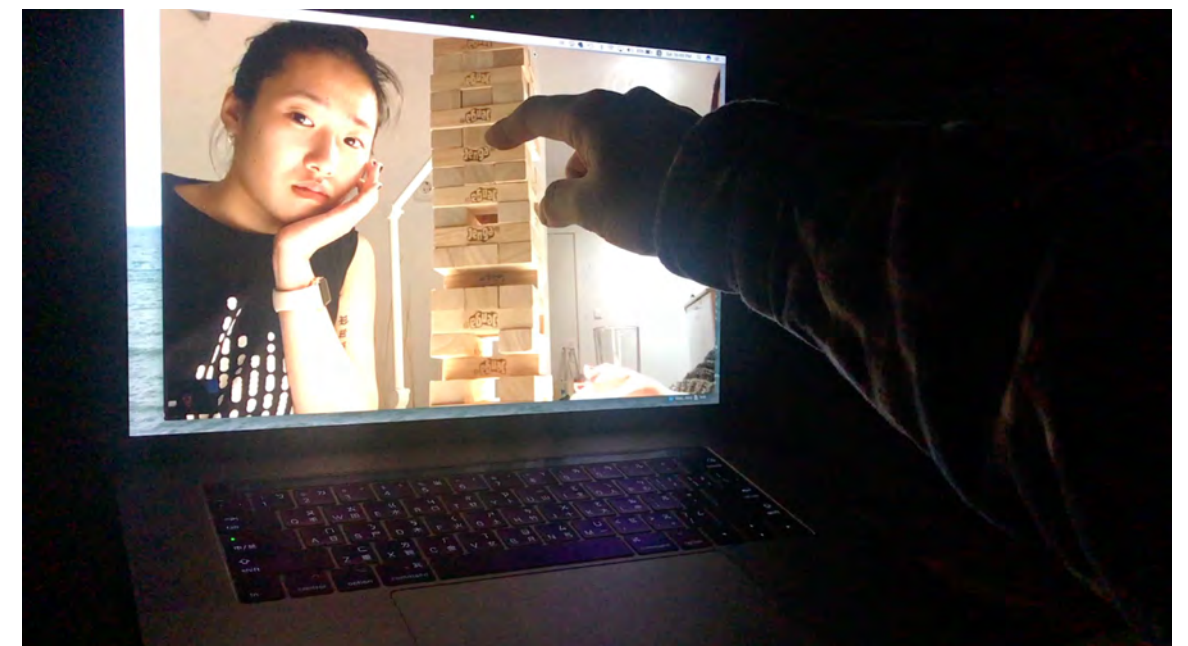

Figure 23: The Table Games (2020) , I play Jenga with my friend via video chat

Kitchen/Room Projection(2020)
The extension of daily activities

In terms of scale, according to this experience, the non-real size live footage on the laptop was not authentic enough for me to link two separate spaces as one. The spatial outline and the figure on the laptop is way too small. In Kitchen/ Room Projection (2020), I projected live-stream footage of my girlfriend cooking outside my room while I stayed in my room watching her cooking. The experiment lasts for 30mins, The first few minutes is weird. In this transitional period of time, I had a feeling that I am watching a movie and a feeling of spying on someone. However, when we started talking to each other, the feeling of monitoring someone was replaced by the feeling of connecting to each other. I noticed that the sound also took an important part in creating this feeling of connecting. In this setting, our voice just went through the door of my room, we could hear the voice of each of us from the door. The voice is not coming from the speaker but actually comes from the space outside the space I am situated.

Eventually, this experiment did not fulfill the goal that I could feel totally connected with the other end. The quality of projection also plays an interesting role in terms of my perception of defining where the actual place of the activities takes place since I use my budget beamer to project the footage. The hazy and rasterized projection has created a vibe that this live-footage actually comes from somewhere far from here.

Figure 24: Kitchen/Room Projection (2020), me and her image on projection

Figure 25: Kitchen/ Room Projection (2020), projection and bedroom

Figure 26: Dining With Myself(2020)

The Video Dining (2020)
From activities to the unification of space(geometry/ texture)

In The Video Dining (2020), I orchestrated the dining scenario in my living room where I set two table surfaces with two identical green plates. One live-stream is converted by camera and pc which projects my live footage on the TV. The other one is using Facetime on the cell phone and the pc. It is interesting to note that the angle of the camera is important in this setup. You could see an illusion that the table surface actually extends into the screen when the camera angle is in the sweet spot which can render a near authentic perspective. The height of the sweet spot is close to the height of the eye level, however, as result, the camera will be in a very obvious location on the screen. So, I still work on this issue. The identical object also encourages my perception to believe the feeling that we are in the same place or we do have some kind of similarity within us. According to Steve Rushton-one of my tutors, he said that the green objects on two screens, given the illusion that they seem identical. But he took a few moments to distinguish the difference between them and he gradually realizes that they are situated in different spaces after noticing there are different Green plants on the screen.

Dining With Myself(2020)

In this still image project, I followed the same size parameters as the last experiment. I used a mirror to present my 1:1 clone. The dining set is inspired by the experience of having a meal with my friends while video chatting during the covid pandemic. We enjoyed different meals but watched the same movie from the Netflix Party. I consider dining together is a great way to have a common setting to connect people from different cultures. The food culture is essential and firmly rooted in our daily life. Inspired by the table setting, I imagined there is one person set at the end of the table, we could share the meal together. This still image inspired me to develop the next project with 1:1 scale live projection of dining.

Figure 27: The Video Dining (2020)

Figure 17: A Night Walk for Edinburgh (2019)

Figure 28: Two White Boxes(2020), the overview of the setting and boxes

The illusional feeling of we situated in an identical space. Inspired me to apply this parameter of similarity of corporeal space into the experiment.

I created two miniature spaces to see how it will manipulate our perceptions. I put identical furniture in boxes, trying to mimic the scenario that we are in the same room(same tangile space). For my experience, it did give me a feeling that I might be in the same space since it has identical furniture as reference points and a feeling that we are surrounded by the same white space which isolated you from the outside. However, it will take me a few seconds to realize we are perhaps in the same space. The size of the thing also matters, the miniature seems too small compared to our big faces on the screen. The difference in the size helped me to distinguish the authenticity of the space. The perspective of the camera also matters, it gives me a believable feeling while I notice that the intersection line of the wall and ceiling in the screen matches the intersection line in my box. The partially isolated feeling of being in the head-sized box with others but with the rest of the body exposed in the place you actually are also grapes my attention. I have a mix-feeling that I have more channels of sensational perception, I can perceive that I am situated in the same space with the people in the white box but in the meantime, I could also feel I am actually situated in where I am now. The feeling of standing on the real ground and the heat from the heater next to my legs, these feelings remind me where I actually situate.

Figure 29: Two White Boxes (2020), the view inside the boxes

Walking Box (2021)
The dislocation of space and body –
From dislocation of space to relative position and corporeal body awareness

To find out more about the mixed-feeling of dislocation while wearing the box, I ask people to wear the box and try to stroll around. Two people having video chat while one person holding a headgear device, the other uses a mobile phone to video the one with headgear from outside the field. In this sense, the participant with headgear see him/herself in the field through the video chat. (see Appendix C) In this moment, he/her becomes a third party and the participant to witness himself in the field.

The body awareness towards corporeal space/body seems like it plays an interesting role in this project. According to the testee, she felt a feeling that the physical body and consciousness of locating herself are separate. She did not know where she was and where she could walk until she saw her surroundings on the screen. She felt more settled when she saw herself on the screen. The separation of the physical and visual perception generates an uncanny feeling of dislocation. The feelings, to some degree, articulate a point that I as a video chat user do rely on a relative spatial reference point (in this case, she saw herself on the screen) to locate myself.
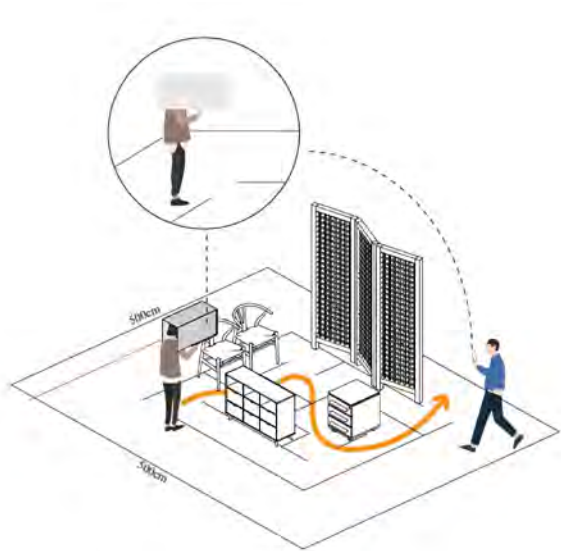

Figure 31: Walking Box (2021), the view from the person outside the box

Figure 30: Walking Box(2021), the diagram of the setting

Figure 32: Walking Box (2021), the view from the person wears headgear

Figure 33: Sleep Together (2021), people have a chit chat under the blanket

Sleep Together (2021)
the unification of space(relative position)

In order to explore more parameters of relative position and corporeal body awareness that influences the spatial perception. In Sleep Together (2021), I imagine two people sharing one bed(space), but in fact, two of them are far from each only connected by video chat. A screen sits on the other side of the queen-size bed which projects the face of others and mimics the fact that somebody lays next to you on the bed. In this setting, you can only see each other's faces when you look at each other.

My feeling is that I somehow felt there is "something" right next to me. At that moment I close my eyes , it is hard to identify if the "something" is someone or just an object. Moreover, according to the feedback of participants, the real-scale projection gives some plausible feeling that a person you talk to is right next to you. And the warm temperature from the screen also creates an intimate vibe. The warmth from the screen is like the body warm which increases an illusion of coexistence.

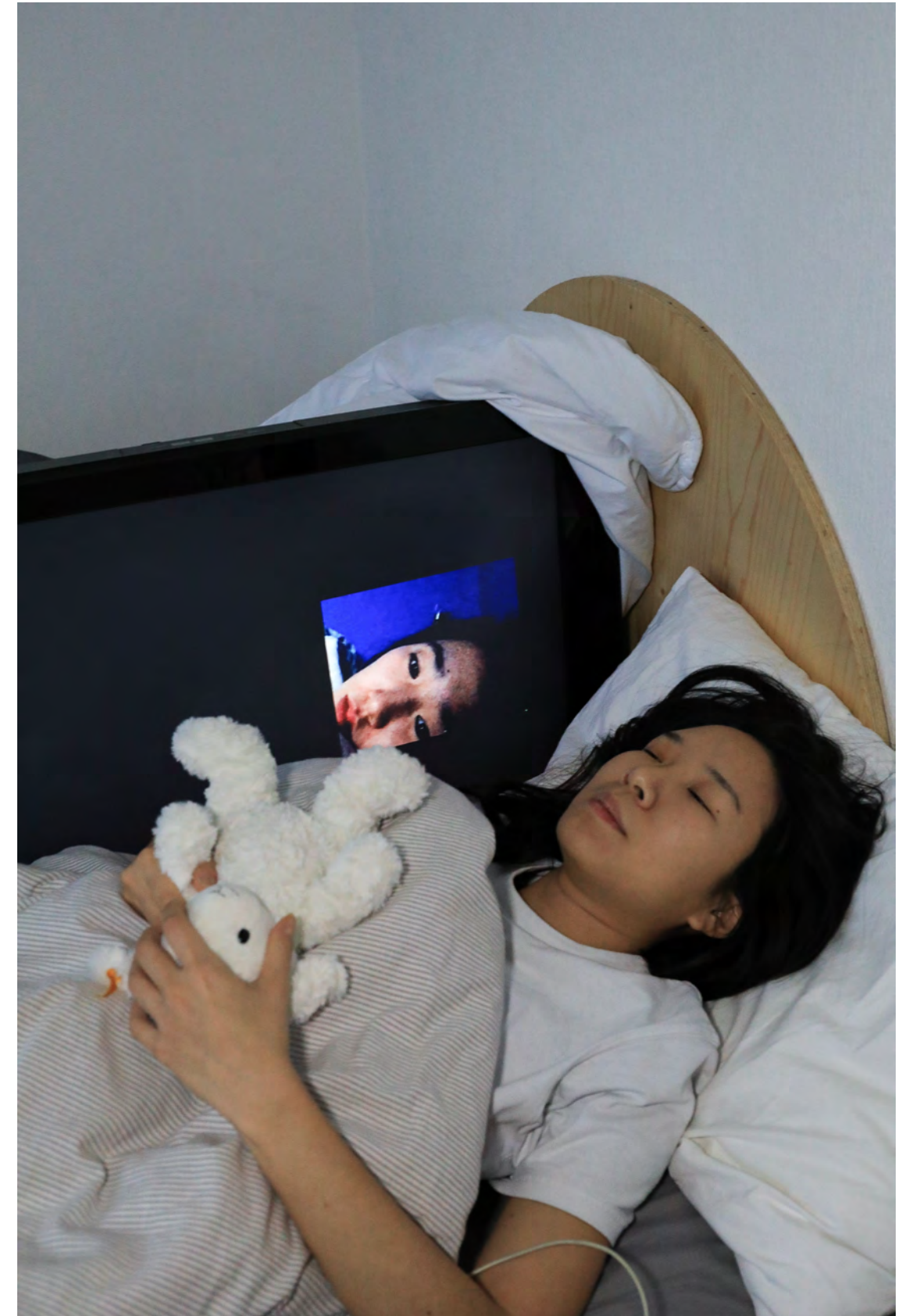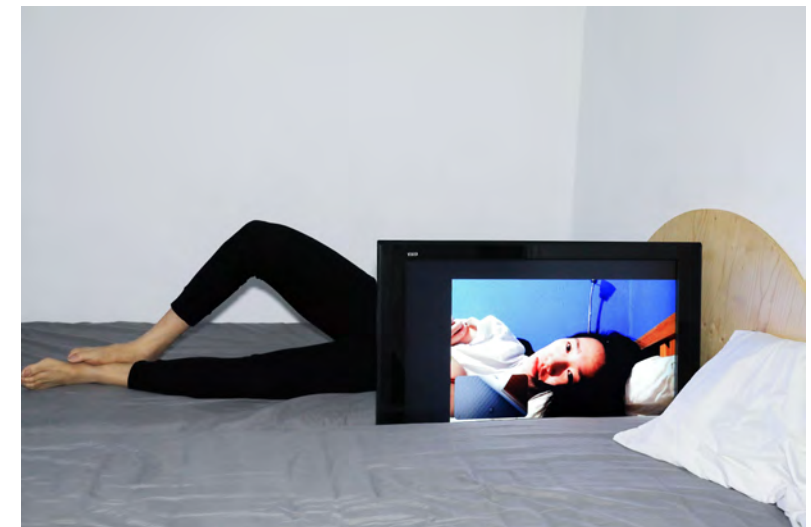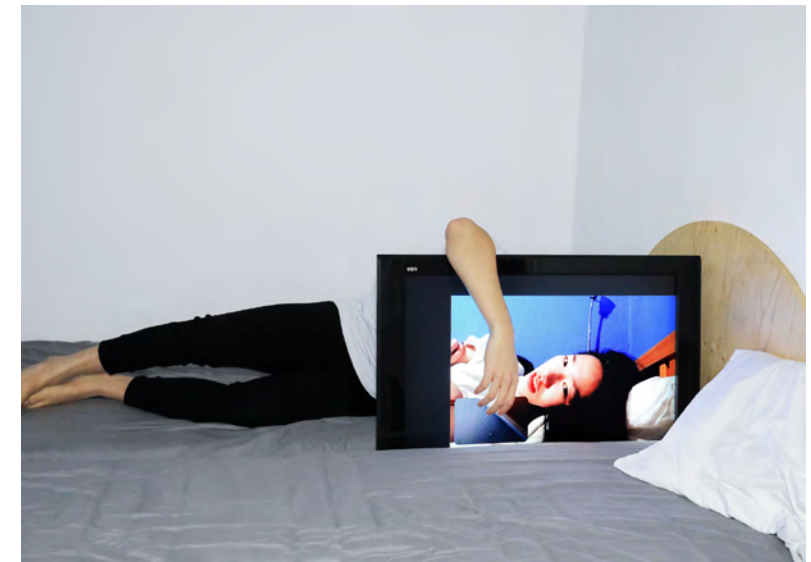Figure 34: Sleep Together (2021)

**Mediated Space and Body (2021)
the unification of space(relative position)**

Following the concept of the relative position from the last experiment, I made a conceptual event. I remotely shared the same bed with my friend. In this setting, her physical body has been mediated by the screen. The screen became an agent which represents my friend from a distance. I stretch my body and try to establish a corporeal relationship with her or the agent. My sensory feelings of the body were used to construct her presence. Trying to explore what is in the back of this agent and to feel the warmth of it.
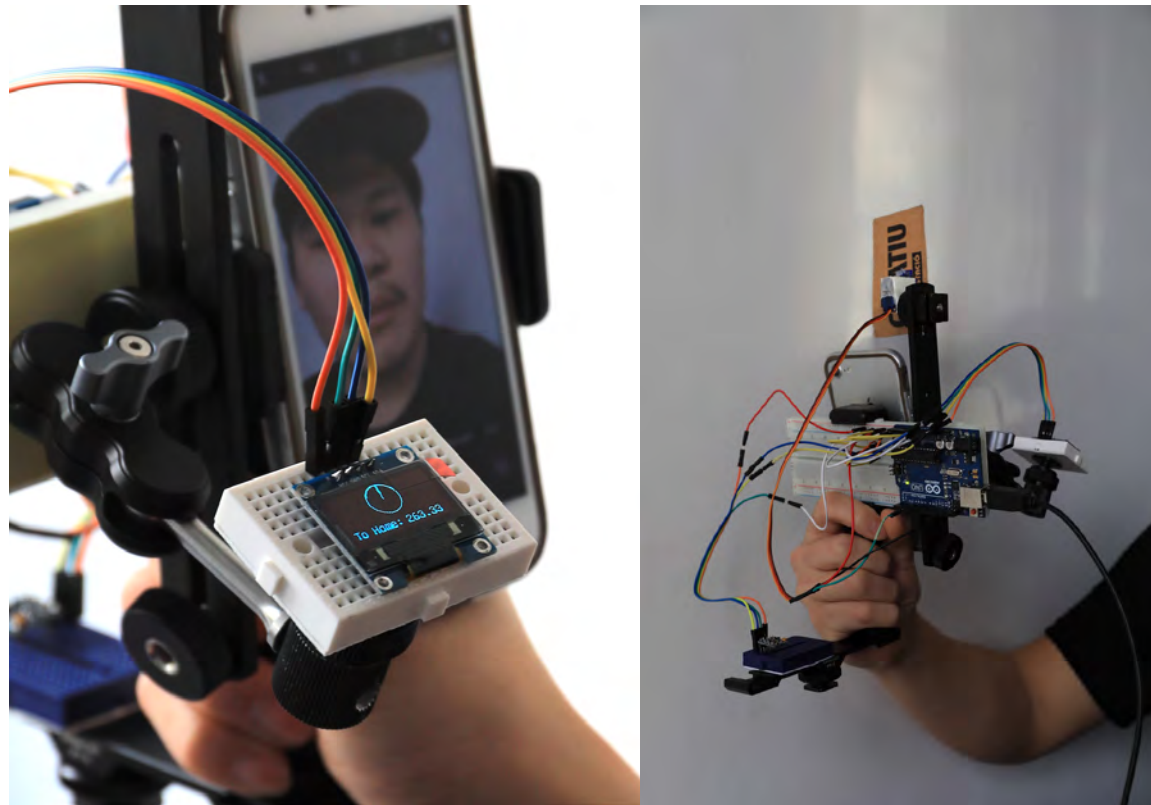

Figure 35: Mediated Space and Body (2021)

Figure 36: Compass video calling device(2021), detail of the device

Compass video calling device (2021)
the unification of space(relative position)
relative position and corporeal body awareness

In order to further extend the idea of relative position and corporeal body awareness into hand-held experience. I combined the geographical coordinate system into the video-calling experience, to enhance the sense of being here and virtual connectivity of relating the actual location of the other interlocutor. I poetically imagine there is an invisible line that connects us no matter how far we are separated. We like the sailor lost our way home on the digital/actual/imaginary ocean, we need a compass to get direction. In this prototyping, I built an external device that could control the front camera while we did video-calling. We cannot see each other's faces as we keep searching for the assigned heading until we face each other geographically.   In order to further extend the idea of relative position and corporeal body awareness into hand-held experience. I combined the geographical coordinate system into the video-calling experience, to enhance the sense of being here and virtual connectivity of relating the actual location of the other interlocutor. I poetically imagine there is an invisible line that connects us no matter how far we are separated. We like the sailor lost our way home on the digital/actual/imaginary ocean, we need a compass to get direction. In this prototyping, I built an external device that could control the front camera while we did video-calling. We cannot see each other's faces as we keep searching for the assigned heading until we face each other geographically.

Figure 37: Compass video calling device (2021)

Conclusion

The experiments above genuinely present how the spatial perception in video chat conversations has become more complicated than a traditional face-to-face chat.

At the beginning of this thesis, in order to position myself in relation to rapid information flow and heal my feeling of displacement, I examine the methodology of the pioneers of video art. By relocating myself into a critical position, I re-examined my own relationship with video. After analyzing the video art of the 1970s - telepresence art, and emerging internet art - I found that presence was deliberately emphasized in the practices of video art and telepresence art in the 1970s. This technique effectively separates the audience from the habitual information flow, because it promotes an uncanny juxtaposition between the audience's physical perception and its digital clone. On the other hand, telepresence technology can already represent part of a human's physical functions. However, we will never discard the physical body and transform it into a digital signal. Also, the physical distance will never disappear completely, since physical limitations will always apply as far as I can think. When in a video call, we still hold our mobile phones in our physical hands. As a result, I consider that an individual's actual perception and the physical space of its body will need to be considered, when looking for an anchor point in this complicated relation.

Initially, during the experiment, I assumed that there is a tangible integrity in the field of face-to-face communication. This integrity links to many environmental factors that varies from person to person. For me, it can be described as a space formed by continuous walls, as small as the distance needed to touch others, or as large as the distance to still be able to see others without physical contact. A room where the setting sun can evenly illuminate a space in which you can feel the other person's body temperature and smell their fragrance. The physical integrity of this traditional video space is cut off, and it is amplified, mediated by and overlaps with video media. In the process of experimenting, I reconfigured these environmental characteristics to amplify the specific spatial perception of a video chat.

In The Present project (Amsterdam,2020-21), the viewers themselves are juxtaposed to different tenses through the film projection, in order to facilitate a discussion about the phenomenon that video may cause confusion in time and space. In Mrs. Day's Twenty Minutes(2020), I assume that I can be in infinite places at the same time. Meanwhile, the assumption of the integrity of our communicative space is bridged by multiple cameras. I explored the boundaries of the spatial perception by simultaneously capturing real-time images of different places during a video call. During the process of The Table games (2020), I realized that the sound was penetrating, which helped to enhance the feeling of the presence of others. It has further been discovered that the position of the sound also, to a certain degree, has an influence on our perception of spatial

integrity. In the Kitchen/Room Projection (2020), the voice coming through the door convinced me that we, the users, were in two adjacent spaces.

I found that human eyes are guided by similar objects, which can create the illusion that we are in the same or a similar space. In the video Dining (2020), the green plate and the table with the same material created a visual connection in-between two participants. In this experiment, I noticed that most of us rely on our vision to create a sense of space during video chat. As a result, in Two White Boxes (2020), I tested the ideal of homogenizing video conference spaces to deceive our vision and to give people a spatial illusion. It is interesting to note that before the props were placed, there was indeed a feeling of being in a similar space, because the perspective of the mirrored space on the screen coincided with the box I was in. To a certain extent, this phenomenon made our originally separated space become continuous. On the contrary, after adding the miniature furniture, the sense of continuity of the space was reduced. I believe it is, because the scale of the miniature furniture is different from the habitual size and the proportions of the face on the mobile phone compared to the furniture was too different. What's even more interesting is, that when I invited participants to walk around with this headgear, they would lose their orientation at first, until I pointed my video camera at them, which was when they felt a separation of their spirit and body. The moment the participants saw themselves on the phone screen, they could establish, to a certain degree, a sense of orientation, but with an uncanny feeling, that their minds and bodies awareness were separated. The headgear isolates the visual perception of space from the rest of the body's spatial perception . Through the video chat, the participants could see their virtual selves in the headgear. This configuration allowed the viewer's body(mind) to experience the coexistence of their virtual bodies and their real body's perception .

Because of the experience mentioned above, I considered that the body's perception of space is worth exploring. Therefore, in Sleep Together (2021), I tried to video-chat-lize the spatial experience of sleeping together in one bed. I invited two people to lie on different sides of their respective beds, and placed a screen on the opposing side to project 1:1 each other's video images, and covered the screens with blankets to create a scene of whispering under the blankets. According to the feedback, the participants mentioned that the color of the quilt helps them feel that they are in similar spaces. The temperature emitted by the screen coincidentally imitates the human body temperature which enhances this feeling. In the experiment, I discovered that because of this relative positional configuration, participants also experience an unusual spatial experience. They shared that after turning over, they would feel someone lying on the side where the screen was located, but there was an unreal feeling. I speculate that this illusion is created by the illusion that the participant still believes the position of the screen indicating the relative position of the remote other.

Follow the above discovery of relative position in Compass video calling device (2021). I applied the concept of relative position to the video chat setting again, envisioning to enlarge the scene of conventional face-to-face conversation to the two ends of the earth. In this sense, I can only see you when I face you, just like

the customary face-to-face conversation. I used the real geographical position to emphasize the fact that the physical integrity of the traditional video space is actually extended. On the other hand, I use the action of finding the orientation to explore the mixed feelings that the visual spatial perception can be extended but the body is left on the scene(in the physical presence) after space-time compression generated by the video chating technology.

This thesis reveals how the video art pioneers reacted to the explosive development of communication systems in the 1970s and emphasized the importance of the site and the presence of the flesh, so that the corporeal body awareness of the audience in different states was enlarged and overlapped. This kind of framework can effectively isolate or emphasize people's perception in the exploration of my ubiquitous feeling. This method can effectively isolate or emphasize people's perception which generates an uncanny experience for the audience to escape from the habitual media relationship.

According to my experiences, the emphasis of the relative position of interlocutors also benefits the process of revealing the in-between space within two ends of interlocutors. To some degree, I could feel more connected with the others because of the action that physicalizes the presence of my interlocutor and to mend the fragmentation of the spatial tangibility of modern communicative space.

I realized that the "spatial integrity" that can anchor me is actually more complicated and inter-related than I thought. So far I have explored various particularities of communicative space - size, sound, color, temperature, taste, physical and digital spatial boundary. However, the characteristics and position of these particularities are re-configured and contansly changed by different video chat senario. As a result, I have to keep exploring, so as to create media relations that can escape our habit.

This thesis is part of a long-term ongoing research, it is just a station along the way. As advocated by the pioneers, in the current media-dominated situation, an alternative tool and experience can be created only when these particularities are regarded as an ecology. The alternative experience and tool could urge us

to critically reflect, confront, and continuously embrace the new sense of space created by the development of emerging communication technology.

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Reference list

Appendix A

Take the most forward-looking telepresence art as an example. In Ken Goldberg and Joseph Santarromana's Telegarden(1995-2004). The garden that audiences from all over the world can experience, is actually physically located in Austria. The robot can use its rotating arm at any time to execute commands issued by "gardeners" scattered around the world. The only requirement is a computer with an internet connection. Through the mediation of the media, the "site" of the garden allows our bodies to have actual measurement standards. We can perceive how big the garden is through the robotic arms and signals' visual feedback, rather than to actually touch it with the biological hand.

Figure 38: Telegarden(1995-2004), the robotic garden and the view from the user interface

Reference list

Appendix B

In contrast, the body's perception of space is left to only visual and keyboard feedback in cyber art. Using the most spatial cyber art as a reference, The Digital Museum of Digital Art (DiMoDA) is conceived as a virtual institution and a virtual reality exhibition platform. In terms of space, DiMoDA has a surreal atrium and its own spatial structure. This approach allows the artist to control and shape freely the virtual environment of the installation works in the museum. Therefore, we will not have physical boundaries and physical feedback to measure or perceive an object/space's size.
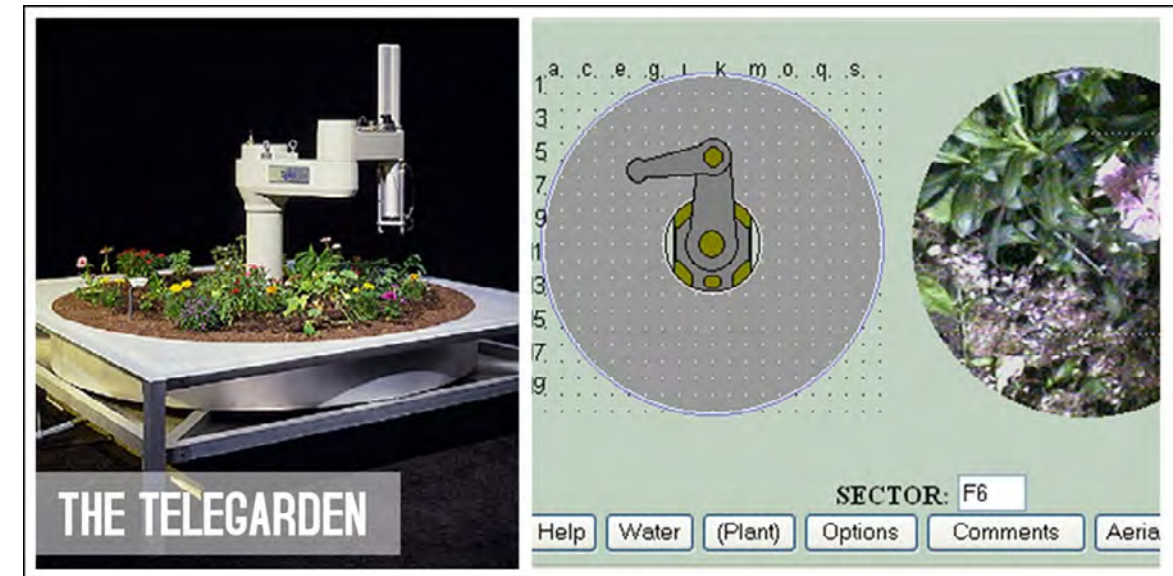

Figure 39: The Digital Museum of Digital Art (DiMoDA)(2018)

Reference list

Appendix C

Walking Box/Event (2021)

Event design: Yu-Ching Chiang, Ying-Ting Shen

1. Intro

Event + Open Discourse

This is a device and activity that combines video space and real space. Through this activity, we want to break people's original physical perception, because in this era of the prevalence of video media, the boundaries of physical space in traditional face-to-face communication are magnified and overlapped by video media. The ability to surpass physical space distance allows us to communicate remotely. But it also changes the perception of space of the body. In video chat, people usually perceive space through their vision instead of other perception.

Has the body's perception faded or changed? Here we use the headgear device to separate the visual and the physical perception to strengthen the audience's physical perception of the space. Virtualize one's body through the process of video chat. This gives the audience an opportunity to experience the coexistence of virtual body and real body perception.
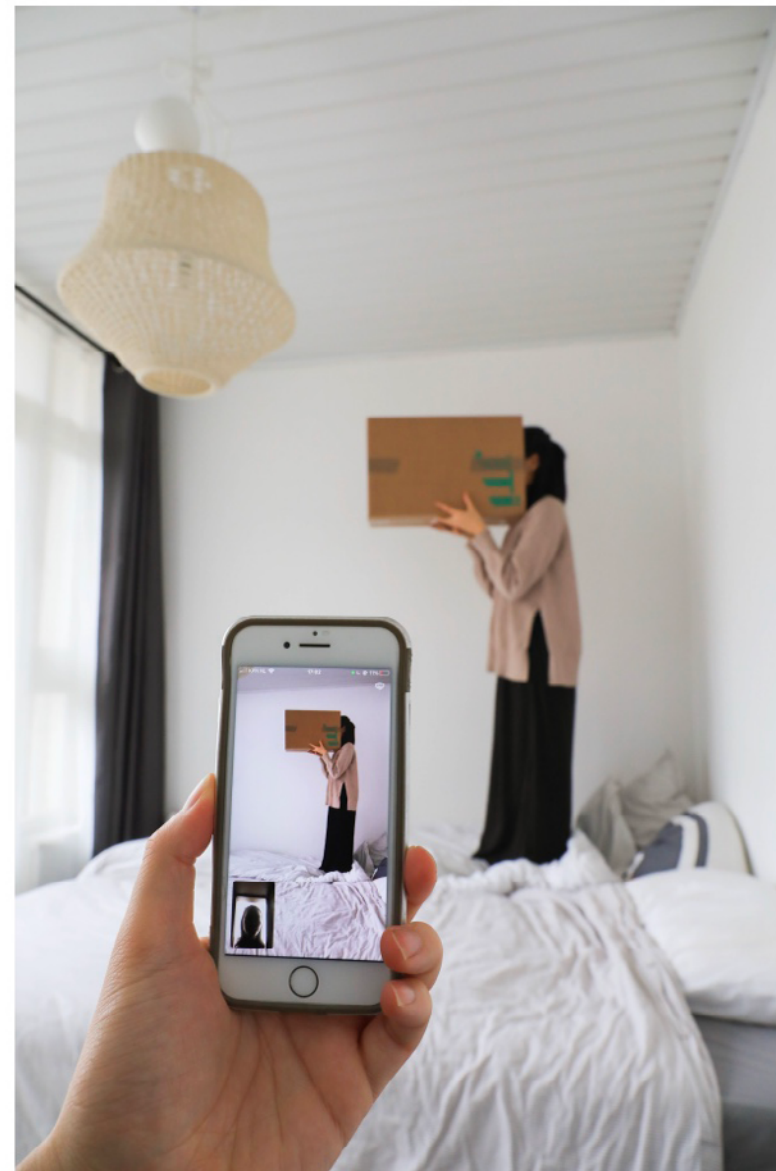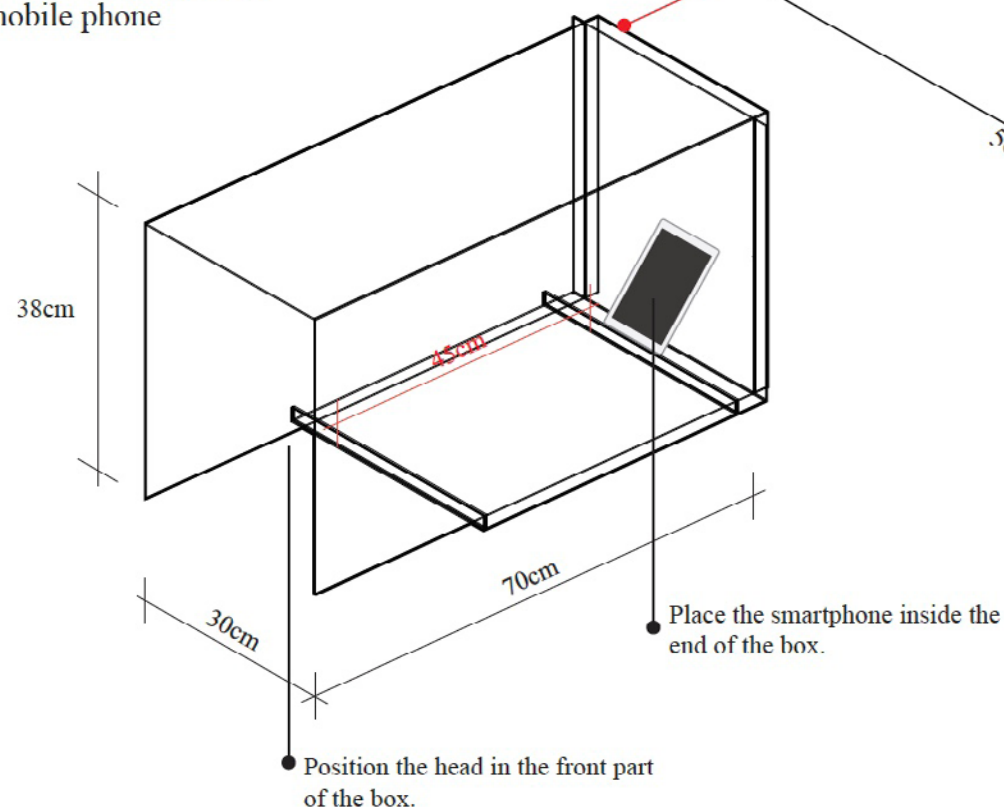
2. Activity

Two people video chat, one person holding a headgear device, the other uses a mobile phone to video the one with headgear from outside the field. In this sense, the participant with headgear see him/herself in the field through the video chat. In this moment, he/her becomes a third party and the participant to witness himself in the field.

We will set up some barriers using furniture as a spatial maze. The participant will walk from the starting point to the end point through the guide and the perspective of others, experience the sense of visual and physical disharmony. After the activity there will be a open discourse. Where we could share our afteroughts and we can discuss how the participants pereive the space differently.

Device Design

Material:

cardboard (existing cardboard or we provide cutting files)
mobile phone
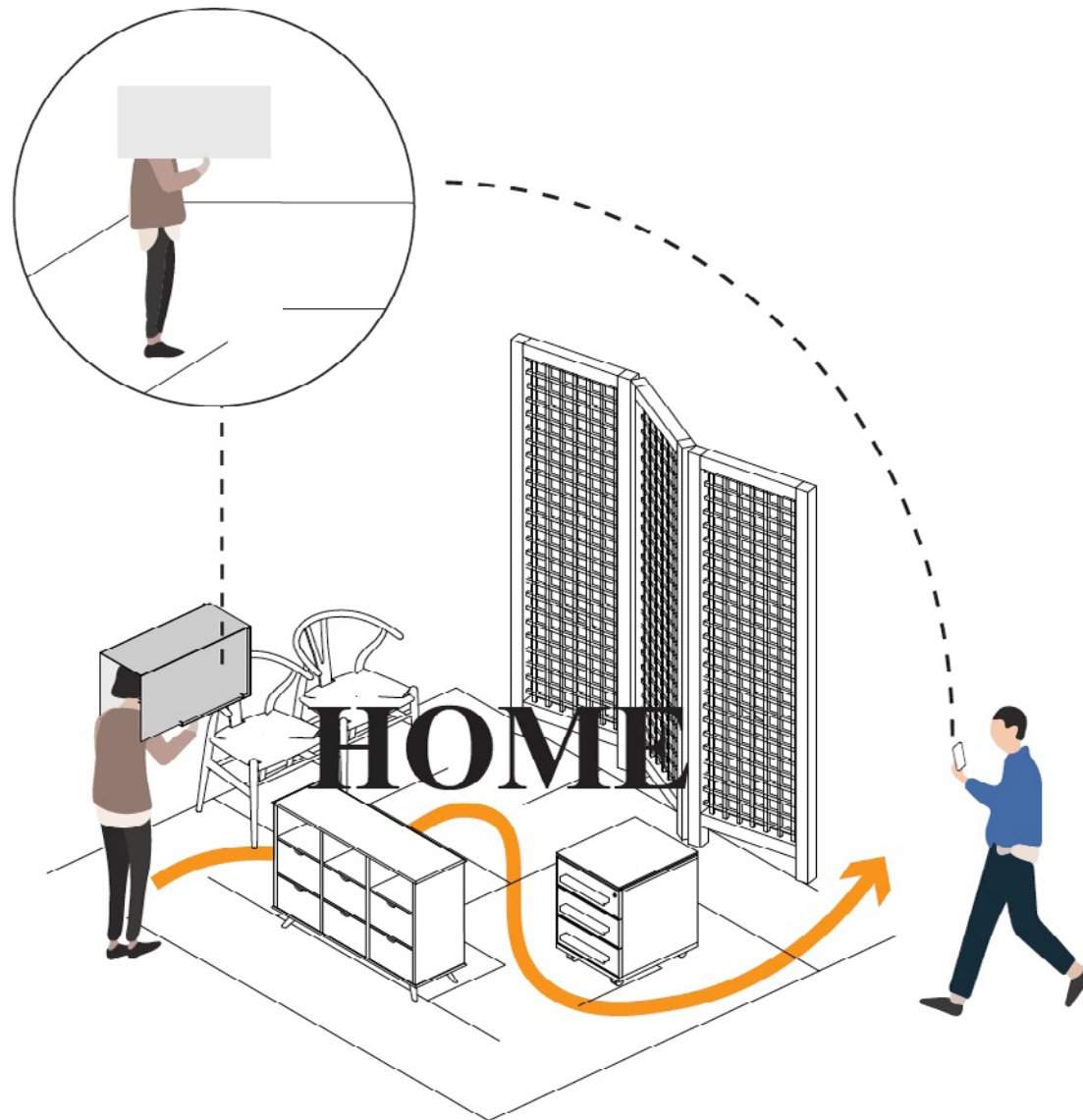
3. Event Schedule

Time: 85 minutes
Max. 10 people

15 mins — Opening
Project introduction.

50 mins — Activity

- 2 people in one group, in total will be 5 groups.

- 10 minutes for each group to explore the site with the headgear.

- 2 people should switch after one finishes walking through the site.

20 mins — Beer and Jam section

- After activity discourse.

4. Open discourse

1. How you feel?

2. How you oreitate yourself in the box?

3. What is your intersitng/impressive/uncanny experiece during video-chat?

4. How do you forsee a new video-calling experiece can enhace our sense of being togeather?

4. How do you foresee the future comunicative space?

38cm

70cm

30cm

500cm

500cm

Place the smartphone inside the end of the box.

Position the head in the front part of the box.

Figure 41: Walking Box/Event (2021)

5. On-line Agenda

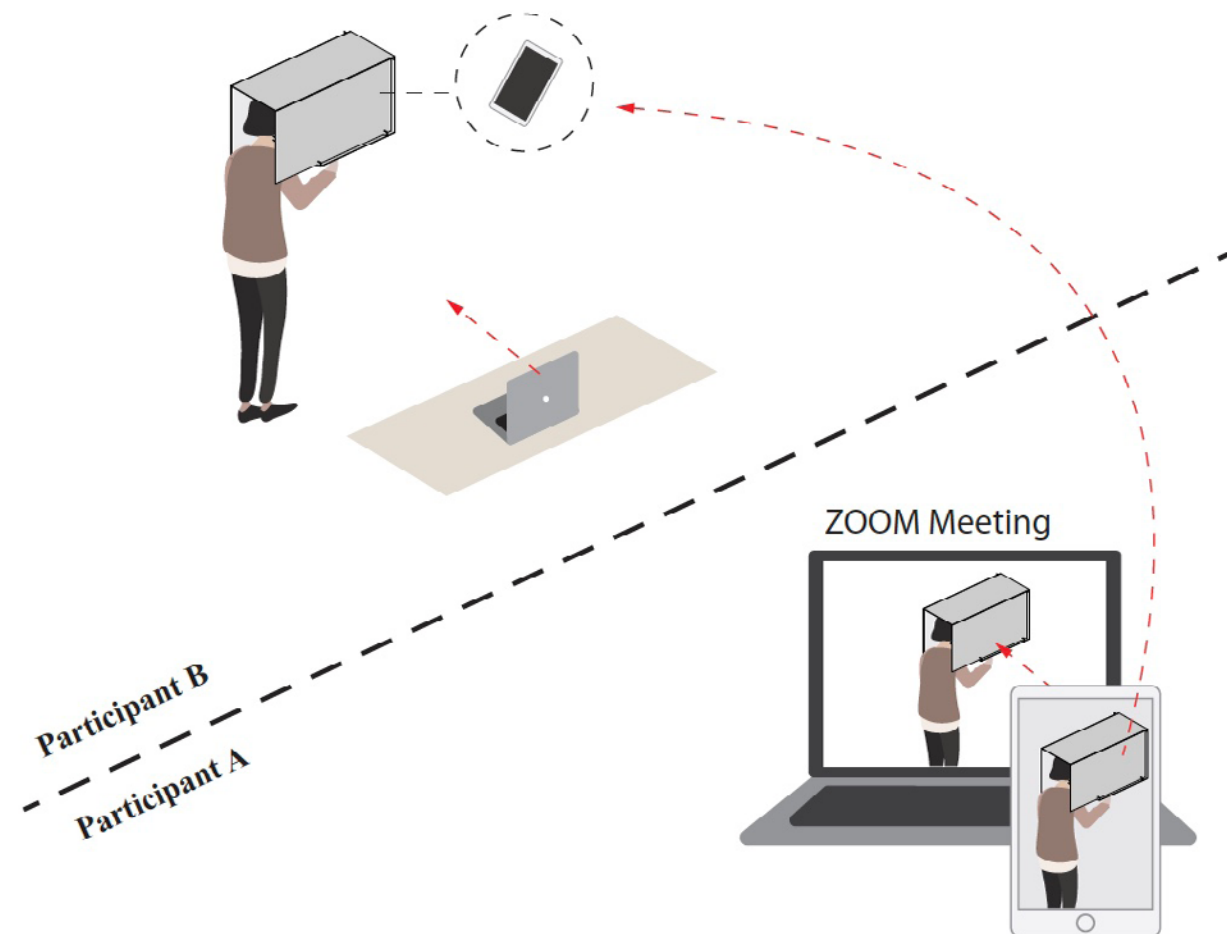**Event Schedule_Scale B**
Two people as group in same place

Location: Zoom+ participant's place
Time: 65 minutes
Max. 10 people

15 mins ● Opening

　　　-Project introduction on Zoom.

　　　-Each participant design and share their route

20 mins ● Activity

　　　- 2 people in one group, in total will be 5 groups.

　　　- 20 minutes for each group to explore the site with the headgear.

　　　- 2 people switch after one finishes walking through the site.

30 mins ● Virtual beer gathering and Jam section

　　　- After activity discourse.

Event Schedule_Scale C
Two people in seperated place as group

Location: Zoom+ participant's place
Time: 75 minutes
Max. 10 people

15 mins ● Opening

-Project introduction on Zoom.

30 mins ● Activity

- 2 people in one group, in total will be 5 groups.

- Participant A points his/her pc camera towards participant B who wearing the headgear while they doing a video chat. In this sense, participant B can see him//herself in the headgear.

-Participant A asks B to perform a series of body actions to express her daily route yesterday without talking then A will make a guess.

- 10 minutes for each group to explore the site with the headgear.

- 2 people take turns

30 mins ● Virtual beer gathering and Jam section.

- After activity discourse.

Figure 43: Walking Box/Event (2021)