How to...

Zoom

Obscura

Find us at our website at **zoomobscura.com** and on our twitter at **@zoomobscura**

Welcome to Zoom Obscura!

This 'How to…' pamphlet offers a starting point to engage with the artistic interventions commissioned by Zoom Obscura, funded by the UK Human Data Interaction EPSRC Network plus.

The seven artistic and creative interventions presented here offer methods to intervene and develop alternative perspectives when engaging with video calling technologies that have become commonplace in many parts of the world amidst the COVID-19 pandemic.

In this pamphlet, we provide an overview of each intervention – along with an overview of a key technology that means you can engage with some of the interventions – Open Broadcaster Software.

We hope that you have as much fun as we have in experimenting with Zoom Obscura, and in moving beyond tired debates that centre on encryption – to a wider reflection on the role of big data, communitarian ethics, and questioning our sensory apparatus to consider the implications of the 'move online' for those of us who are privileged enough to retain our employment, have internet connectivity, and the capacity to engage with digital technologies.

Zoom Obscura does not seek to determine a particular future we should be pointing towards, but rather offers the interventions for you to question how video calling and other digital technologies have changed many of our lives. Indeed, *your* life. Zoom Obscura is a means for you to do this...

Contents

The Interventions

Zoom Obscura commissioned seven artistic interventions into video calling technologies. You can find the original call for interventions here. Over the course of 3 workshops, covering *ideation*, *prototyping*, and *presentation*, the commissioned artists and creative technologists, along with the Zoom Obscura team, worked through what a Zoom Obscura could be.

This has produced a range of interventions, which cover various aspects of our lives; ranging from concerns over biometrics of the face and body, to disturbing our relationship to the ominous boxes that provide windows into our lives, to different sensory and playful interventions that challenge us to play with Zoom and other video calling in new ways.

Ultimately, they all offer distinct and innovative ways in which we can challenge the dominance of the corporate business meeting, from which video calling technologies have morphed from.

Instead, the interventions invite us to play, be inventive, be obscured, experience differently. Zoom Obscura is not just about the optics, but a whole being with technology, our agencies, and our capacities for knowing and feeling.

In the following pages of this pamphlet, we introduce each of the creative interventions…

Group Dialogues (Michael Baldwin)

Group Dialogues is a composed conversation in five parts. A group of three participants enter into a series of dialogues mediated by visual and sonic cues. The conversation touches on the medium of video conferencing technology, addressing the topics of conversational responsibility, latency, speech disfluencies, turn taking, and the process of disconnection.

[For Ruth & Violette](#) **(Paul O'Neill)**
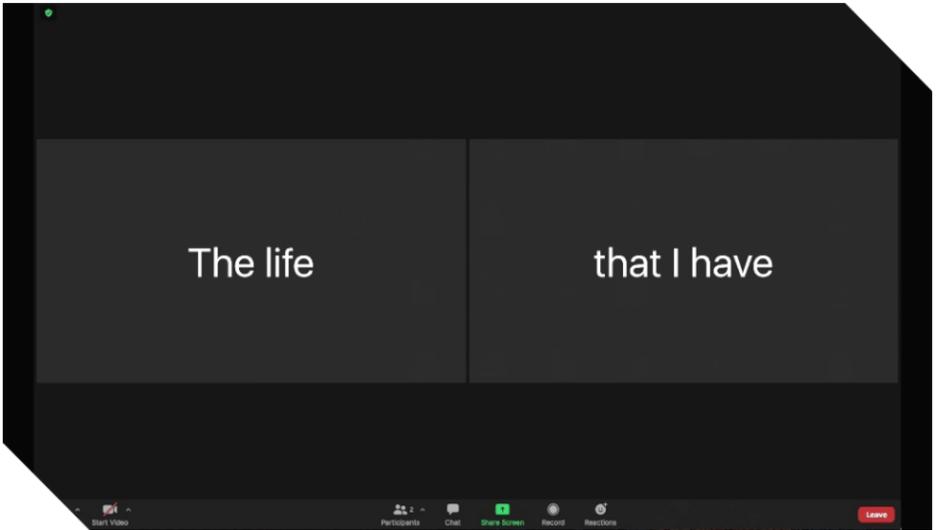
For Ruth & Violette plays with poetry and encryption to subvert networked communications infrastructures. Based on a code-poem used by intelligence operatives in the Second World War, the piece harnesses alternative uses of the video conferencing platform Zoom to engage with the complex history of obfuscation in relation to covert broadcasting methods.

The title of the project is in reference to origins of the poem and the lives encoded within it.

[How to touch through the screen/Erotics of discontinuity](#)
## (Andrea Zavala)
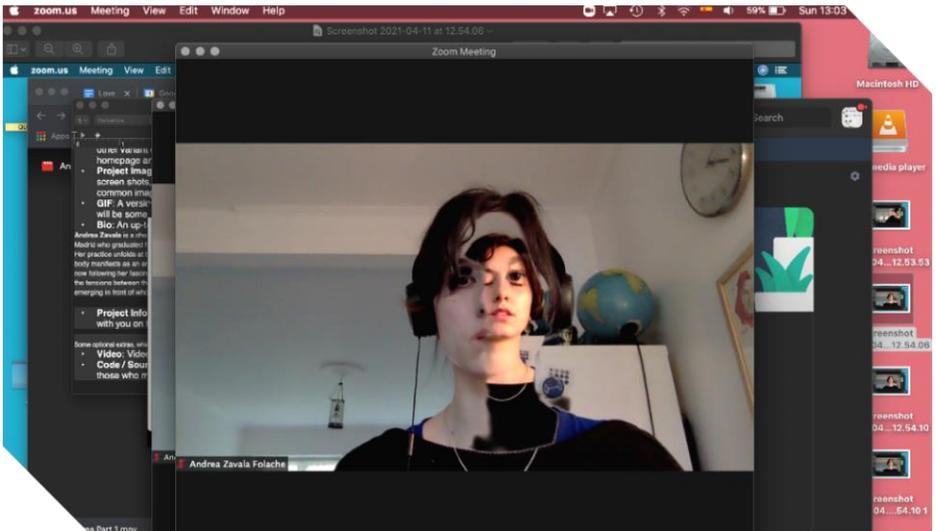
How to touch through the screen / Erotics of discontinuity is an invitation for the visitors to follow a simple choreographic score through an audio file. This score follows the curiosity of guiding in a poetic, philosophical and sensual manner, a series of instructions in order to open the possibility of providing and receiving touch on Zoom. By exercising calmness through breathing, visualisation and listening, it may become a playful yet serious performance on being present whilst not seen, on being connected whilst physically separated, on embodying touch and togetherness in the disembodied apparatus of Zoom meetings. With this score I hope to practice transforming how we view our bodies on the camera -- not as surfaces for mediation and control, but rather as matter that can dilute in the virtual fluidity and continuity -- giving oneself the perception and the trust that one's body and sensations may operate far beyond the skin, the eyes and the frame of the camera.

How They Met Themselves (Martin Disley)

How They Met Themselves is an investigation into how algorithmic and human schemas of facial identification, verification and perception differ and how these differences can be leveraged to control how our identity is coded in the images we put online. In aid of this, a bespoke software tool called Deepfake Doppelgänger was developed to exploit some of these differences. The application generates a bespoke avatar based on the user's uploaded portrait image that preserves the likeness of the face in the image whilst obscuring the biometric data linking the avatar to the user.

# Masquerade Call: Expression through Privacy (Ilse Pouwels)
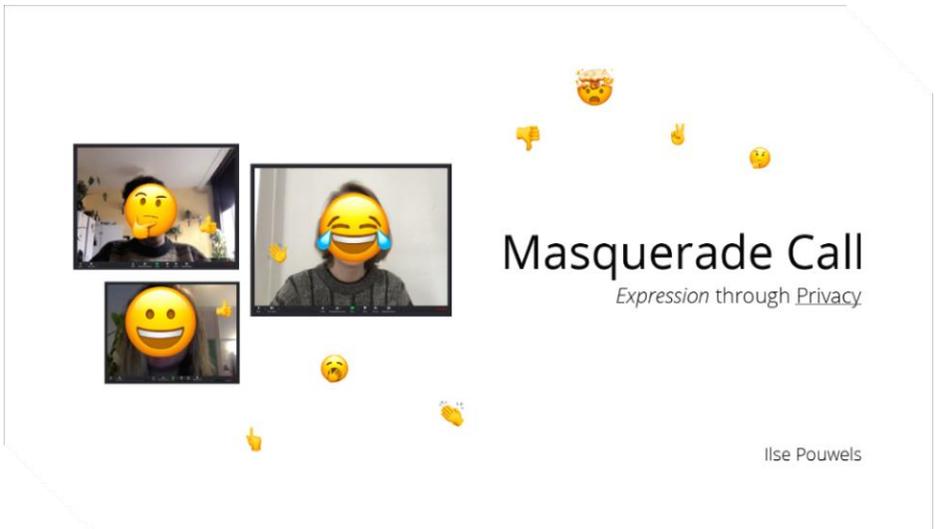
This piece intervenes in the unbalanced power relation between us, "users", and our digital video conference software(s), in specific Zoom settings. Going back to why did we start using these tools... it is to communicate with each other while being apart. Which lead me to wonder, how can this need be fulfilled in a playful way while respecting users' privacy?

One of the options I see is creating hacks, a bottom-up approach, that give users the power to creatively express themselves. The emoticon "face mask" is a playful approach to show your visibility. People understand that you are there, listening, thinking, talking, expressing yourself. The hand gestures actively allow you to use all the pixels in the grid to communicate in a fluid and creative way. The layer of emoticons on top of the video feed pollutes the video data that Zoom is getting from you. It is now likely to classify you as a 25 year old happy man.

The prototype build for this project is available open source. You can download the code and run it locally so no facial data is shared. Through a virtual camera software, OBS, you use can this to feed into any Zoom meeting. With keyboard hot keys and the mouse you can control the filters and hand gestures.

The power of this intervention not only lays in individuals taking back control over their privacy but, we as a collective, can take a stance. When all of us are starting to use plug-ins like this, big tech corporates like Zoom who are collecting on us will lose their value. This aims to trigger a reflection from big tech and the role they play in society. This will hopefully result in a reality where we don't have to actively create hacks to have an equal relation with our technology.

Itsnotreally.me (Foxdog Studios)
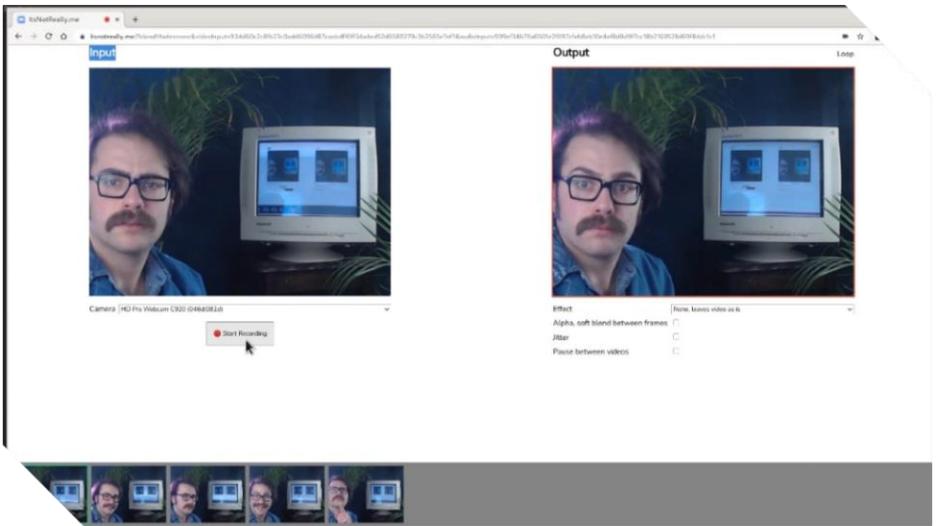
Itsnotreally.me is a webpage where you can record loops of yourself to playback via a virtual webcam in a video call, allowing you to fake your presence. You can record multiple loops which could be anything from you sitting at your desk smiling, nodding intently, laughing or even an empty chair. You can easily switch to your live cam when you need to engage in the conversation. Clips are quick and easy to record, so can be prepared in the minutes before a meeting, meaning clothes, lighting and background will be consistent with your live camera. The aim is to allow you to relax during a meeting, disengage when necessary and even save expressive energy with a "canned response".

We (Foxdog Studios: Lloyd Henning & Peter Sutton) found it draining being watched while idle on screen. This happens most in large video meetings, where you may not be in direct conversation with the speaker, but you still have to be attentive of how you appear. Someone could always be watching you. Contrast this with real life meetings where people turn their heads and gaze to the person speaking.

Web technologies allow complete client side recording and storage of videos, allowing us to create a lightweight application that only saves your recordings and data to your own machine, nothing is stored on a server, all the data is

yours. The project is a simple React application written in Typescript using the web standard MediaDevice and MediaRecorder APIs to capture and record videos.

The Zoom Obscura project aims to subvert video conferencing and itsnotreally.me achieves this by not allowing the platform to dictate how we passively engage with others in meetings via our webcams. By allowing users to create a palette of video loops to express their emotions, they can regain control of their presence.

[ZOOM_mod-Pack](#) (B Wijshijer)
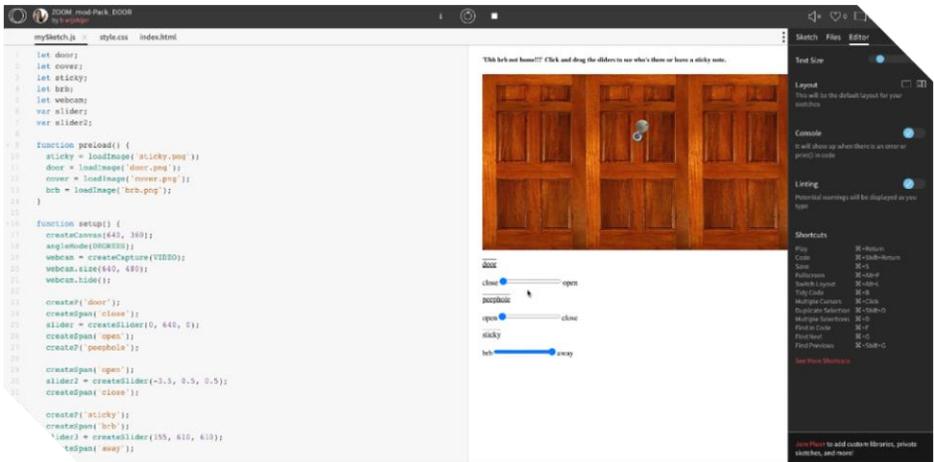
ZOOM_mod-Pack is a collection of webcam modifiers that video chat guests can run through a virtual camera, like OBS, to customize their video chat experience. The host-oriented, paying user-oriented structure of Zoom limits how the general individual accessing through a free account can engage in social conversation or activity. A Zoom attendee cannot come and go as they please without the host being alerted, they can be muted without warning or requested by the host to turn on their video and microphone. We are automatically seated front row and feel obligated to follow our host's directions despite these particularities being new to our typical interactions.

As a platform originally created for businesses and professional conferences, then exploding into the global as a key way to communicate during the pandemic, Zoom was not constructed with reciprocal or non-hierarchal relationships in mind. And yet, because of our limited options to remotely convene, the model of the business with a boss at the head is being applied to any and all types of conversations occurring on the platform. The subscription-based relationship is the new addition to the subscription-based world.

My collection of filters work to highlight the theatricality of the video chat platform while simultaneously offering different ways to regain agency within it. Each mod focuses on a different type of 'screen' we may use to communicate away from keyboard. With every screen there is an adjustment

slider the video chat attendee can use to customize how visible or hidden they are to the host and other video chatters. In this mindset, a host can request the attendee to keep their video on and their guest can cheekily watch through a crack in the door or a slot in the blinds, or in the middle of a huge crowd, or completely obscured with a blackout shader.

The filters offered vary from the neutral domestic door and window, to the vender kiosk, to the dramatic set. Mod users can choose the filter that relates best to their particular Zoom meeting, redecorating the 'room' to match the topic and reminiscing on relationship norms past.

Open Broadcaster Software

Some of the interventions above – *How They Met Themselves, Masquerade Call, Itsnotreally.me, and ZOOM_mod-Pack* – require the use of a tool to capture your video, modify it, and feed it out to Zoom or other video calling software.

Open Broadcaster Software (OBS) is a free technology and you can access the different interventions through the links above. Below, we provide some steps on how to get OBS working so that you can experiment with the interventions themselves!

Step 1: Getting Started

Go to **obsproject.com** and download the software for your operating system. Follow the required steps to install OBS like any other program on your computer.

Step 2: Get OBS to capture and feed your video

When you open OBS, you will be presented with something like the screenshot below.
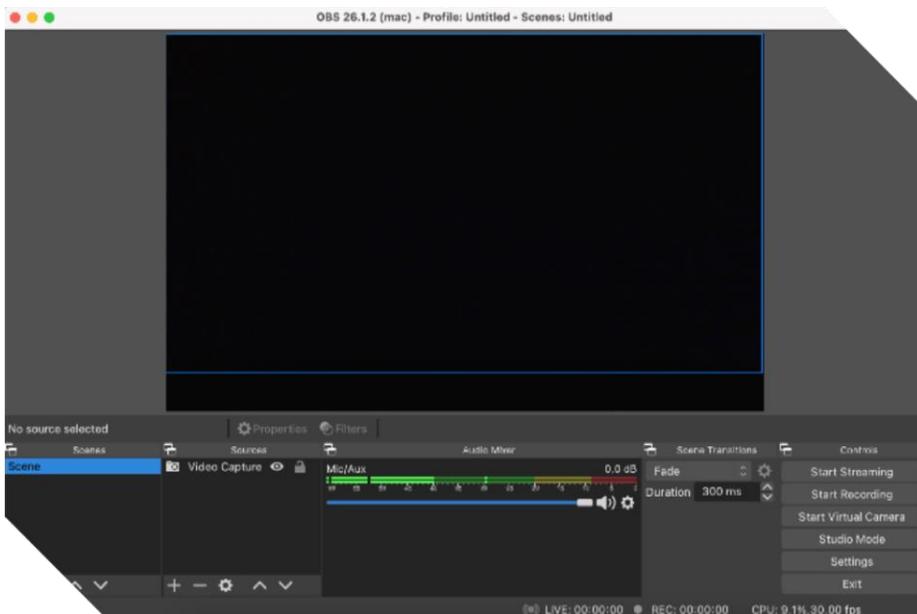
This black screen means that we need to 'give' OBS an 'input'. This is sometimes automatic. If not, go to the 'Sources' box in the bottom centre-left, click '+' and select 'Video Capture Device'. Now you should (hopefully) see yourself on screen (a bit like below!).


Now we have OBS showing us live video, we need to create what is known as a virtual camera 'output' – Windows and Mac already have these installed, win! – however if you're using Linux you can download obs-v4l2sink.

To do this, look for a list at the bottom right-hand side of the window, from this select 'Start Virtual Camera'. We now have a way for OBS to communicate outside and for it to filter our video from our camera to Zoom.

Step 3: Get Zoom to recognise your video from OBS

Go and launch Zoom. However, a note of caution – Zoom only recognises the virtual camera 'output' when it loads, so if it is already open, restart the application.

Then click on the 'Video' button at the bottom of the window as in the screenshot on the next page. There you should find 'OBS Virtual Camera' or something similar!
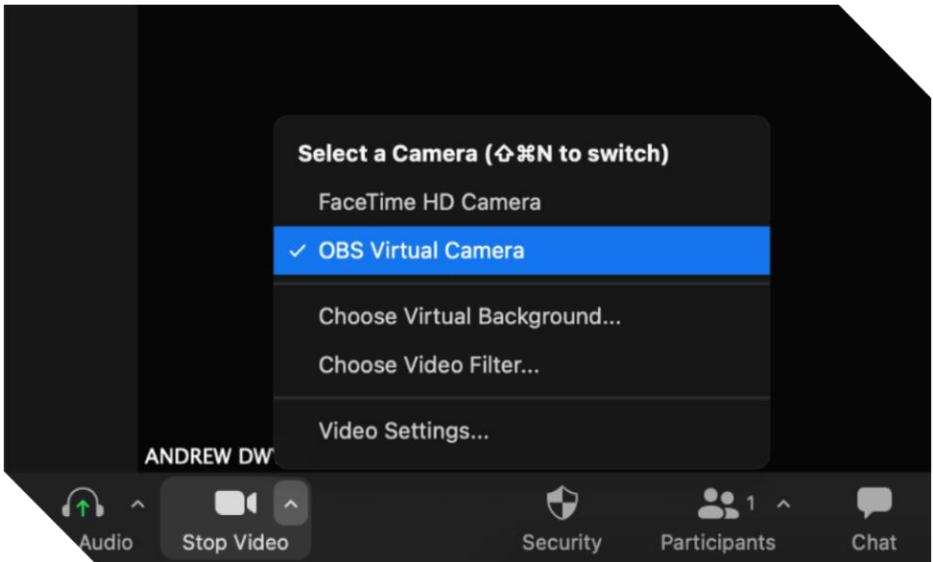
When you click on this, you should be able to see yourself on Zoom as it is processed through OBS!

We can now process video and engage with the interventions.

Step 4: Selecting an input!

Go back to OBS, and back to the 'Sources' section and again select the '+'. This time select 'Window Capture'. You will be presented with something like the below (depending on the intervention you wish to try!)

You sometimes need to click 'Show Windows with empty names' and then click and drag windows in OBS to get these centred!

And then… you're done! Play away!

14