



Thanks for being here tonight. The title of my talk is “the new nature of spacetime”. as i review and reflect upon my artistic practice over the last five years, I hope to **elucidate the title**, and explain why I think it encapsulates many of the overarching questions that have driven my artistic work.



I apologize for the cheezy photo. I thought it was better than staring at a blank slide while I talk about my background.

- i majored in physics which is where my
 - **consideration of the nature of spacetime—its laws, equations, and models—began**
- although i didn't anticipate applying to art school, in so many ways physics is the reason i'm standing here today
 - programming languages
 - computational toolset
 - formal and conceptual



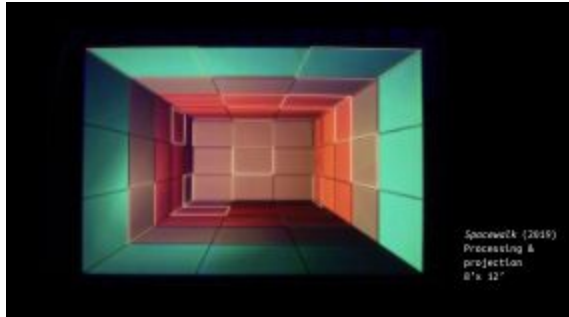
I really started to claim the title of artist in 2016 when I debuted *The Cave*, an immersive, interactive installation that I created for **Luna Fete**. **Luna Fete** is new orleans' annual light festival.

"The Cave" explored the **dawn of art created by artificial intelligence**- art made possible by new machine learning algorithms. By tweeting images to the handle "paintingthecave", the audience spawned algorithmically-generated computer "cave paintings" that were embedded into the cave's digital mesh.

In the era of AI art, I ultimately hoped to **reflect upon the capacity of creativity** as a distinctly human characteristic.



Constellations was my second major installation, also created for **Luna Fete**. I worked in collaboration with the art collective **Kirasu** to create an interactive experience of light and sound. By tracking viewers using an XBox Kinect, I transformed participants' **bodies into moving constellations**.



Spacewalk is the last pre-MFA piece i'll mention, which I've included to give you a sense of where my practice began.

In all three of these examples, i employed relatively consistent formal choices:

- an emphasis on precise **geometric shapes**,
- mathematically-defined **lines of light**,
- and **flat planes** of color.
- Each projection mapped environment converges to a **distant, digital horizon line**.



One of the first pieces I started building at Tulane represents a **continuation** of the work I made prior to my MFA. Sinusoidally oscillating geometric shapes collapse and expand in 3 dimensions. I titled the piece **Lacuna** meaning “an unfilled space or interval; a gap.”

Lacuna encourages wonder and awe, as the viewer steps into a room-scale, immersive, temple of light.



- Many of my early artistic explorations were informed by new media artists working with **light and code**.
- Artists like Joanie Lemerrier who addresses his work with the tagline,
 - “Space as canvas, light as medium.”
- Lemerrier creates forms on invisible water particles, in a quote
 - “abstract journey through geometric structures formed by the universe.”



Other groups like Nonotak, a duo of artists Noemi Schi-pfer and Ta-kami Naka-moto, employ light in a similar manner, creating “**dreamlike**” environments with minimalist geometric shapes.

Like lemercier, Nontak emphasizes a **physicality to light** that probes the nature of spacetime. The **lack of color** encourages viewers to focus on form and depth that further emphasizes the ethereal potential of virtual environments.



- I think all of these examples point to a new nature of spacetime:
 - a domain in which the virtual becomes real,
 - where digital can no longer be distinguished from analog.
- creative technology has made possible, new dimensions with new physics, new rules and new algorithms only limited by the **capabilities** of human perception.

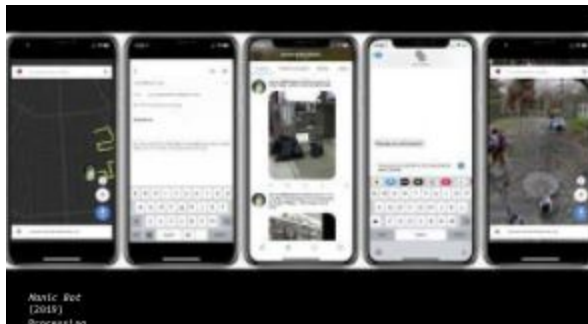


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I think that the enormous potential for creativity afforded by technology is something I have gravitated towards; at the same time, during the first year of my MFA I really started to question the awe-inspiring nature of light as a medium.

- I really started to **ask myself** - How does my practice engage with the world and the world with it? It's around this time that,
- I started to see work in **light festivals** that felt contrived and out of touch with the imploding world.
- I included this **picture from the Onion** mostly because I think it's funny, but also because it represents **this** shift in the way I started thinking about my work.

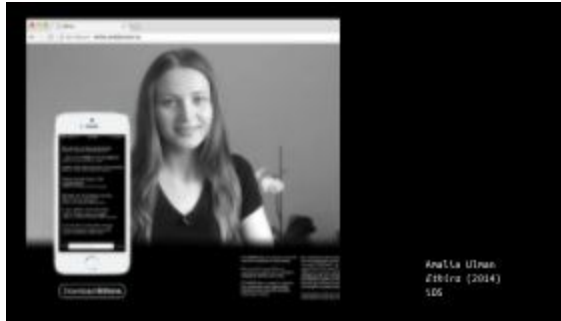
So although my work doesn't dive heavily into criticality or social justice, the formal aspects of the work noticeably change, ultimately with the hopes of **skirting the sublime**.



Manic Bot is the first example. It's an interactive Processing program that attempts to **blur** the lines between human and machine by **merging the content** that I created during my psychotic break (which includes geolocations, social media posts, emails, and texts) with **equally bizarre**, frequently-nonsensical text and imagery generated by artificial intelligence algorithms.

Like previous work that I've discussed, this work seeks to **challenge our access to reality**. By combining my own blabber with the algorithmic equivalent into this smartphone performance, I hope to ask: when did I **lose Jenna** and become a sputtering, psychotic bot? And equivalently, when will machines, with all their human-induced neuroses, become conscious?

With the creation of Manic Bot, I **started to look at Net Artists**, rather than light artists, which I think helped me move beyond the type of **mesmerizing aura** of my previous work.



Amalia Ulman's work, Ethira, ultimately played a role in the ways I started thinking about the intersection of technology, mental health, movement, and surveillance. Ethira was an iPhone app that allowed users to post **anonymous, geo-tagged** messages that would **delete** soon after posting. by refusing to record any data about users, Ethira attempted to **subvert surveillance capitalism**, by which I mean the increasingly dominant economic system where tech companies commodify

personal data. The objective, in Ulman's words, was to create an app where users could **"shout into the void"**.

She writes: "Twitter seemed the go-to app for those with mental health issues... as a form of release. The problem with that though, is that ...your problems become inseparable from your handle"

Ulman's critical consideration of social media (in this case, in service of mental health) ultimately served as a **bridge** from Manic Bot to my critical examinations of surveillance.

(9:27)



Jonas Lund was another influential net artist, . His 2011 project, I'm Here and There, explores surveillance and privacy by continually projecting, in real time, the artist's **browsing history**. Lund's transparency ultimately establishes a sometimes uneasy, definitely voyeuristic relationship with the viewer that serves his critique of digital privacy.

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In my next project, titled Oogle, I embrace this critique of surveillance by subverting the objectivity and neutrality of Google Maps.

GO TO WEBPAGE

This interactive web app allows users to **zoom into each room** of my house.

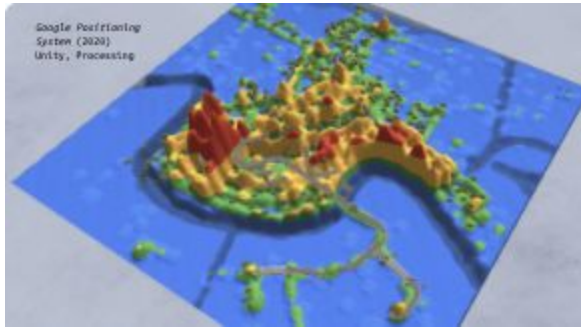
- As you get closer, the location labels reveal **increasingly intimate** details about my living space.
- I'm also critiquing our **over-reliance** upon digital wayfinding by creating an interface to get directions between rooms.

By Mimicking Google's **interface** and **color scheme**, I encourage the user to reflect upon their potentially inherent trust in a profit-driven software giant that is quickly mapping and photographing every inch of Earth's surface.



A house view mode, designed to satirize google street view, further drills home this critique. Like Lund, I employ my own data in a manner that **increases my vulnerability and establishes a voyeuristic relationship** with the viewer in order to reflect upon the state of digital privacy.

I think Oogle represents a **natural step from Manic Bot**. In manic bot I was able to recreate my psychotic state using personal twitter data that I downloaded from their website. As a result of social media's persistent monitoring, Twitter now has an eternal record extremely personal information. In both Manic Bot and Oogle, by **deploying my own data in transparent manner**, I hope to encourage the viewer to reflect deeply upon technology's surveillance of both virtual and physical movements through space.

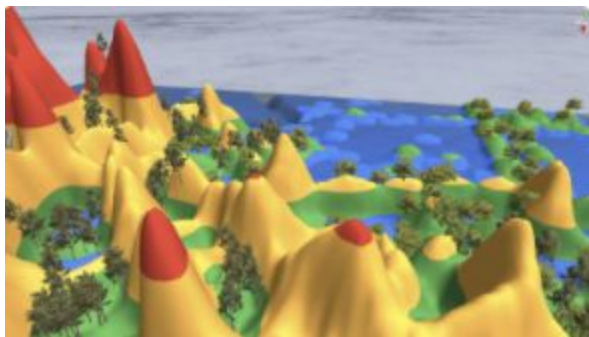


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My next map-related project was called google positioning system. I created a virtual terrain using my personal location data, data that Google captured—unbeknownst to me—over three years. In this data visualization, elevation corresponds to the frequency of visiting a particular place. So, for example, my house is the largest peak.

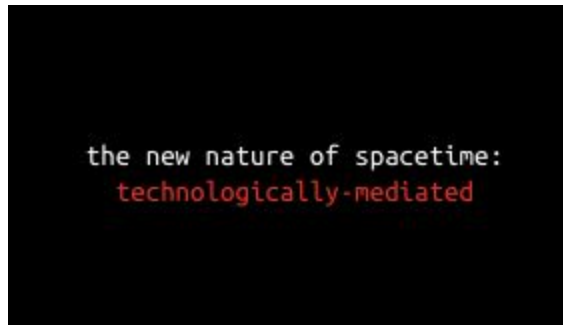
At this time, I started reading J.B. Harley, a historian of cartography whose thorough consideration of maps as socially-constructed agents of power (beginning in the 15th century with European colonialism) aptly applies to contemporary digital cartography.

In short, we can no longer think of Google Maps as an objective representation of the Earth's surface, but rather as a tool of surveillance capitalism where paid advertisements on the map ultimately influence consumer decisions and travel directions.

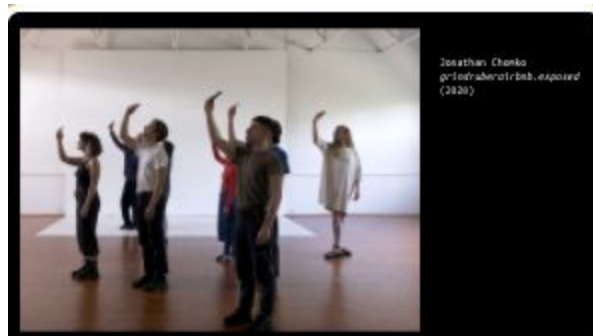


Through this virtual terrain, I hoped to give material form to these hidden landscapes of power.

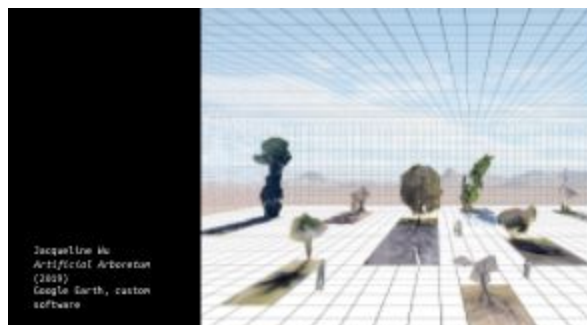
While I don't consider Google Positioning System as finished—particularly because the formal qualities (especially color) render the work as more of a data visualization than a critique—I think this project helped me med-i-tate upon the ways in which Google crafts invisible topographies that influence where we shop, travel, and explore.



It is through this project that I started to think of spacetime as technologically-mediated.



This is an idea that artists like Jonathan Chomko's really helped to cement. His piece, "grinderuberairbnb.exposed" is a **smartphone-synchronized performance** that exposes these **networks of control**. In this technology-mediated choreography, Chomko suggests that apps like Google Maps and Uber are **neither passive nor objective**. These networks actively shape, move, and manipulate space..



I'd like to emphasize, however, that **not all** of the artists I've been looking at take an expressly **critical stance** towards technology's impact on movements through, relationships to, and conceptions of space.

Jacqueline Wu is a contemporary new media artist whose playful cartographic considerations are **more observant than subversive**. Wu's work, Artificial Arboretum, uses Google Earth as a medium. She captures and studies real world trees rendered by Google satellite algorithms into bizarre three dimensional forms.

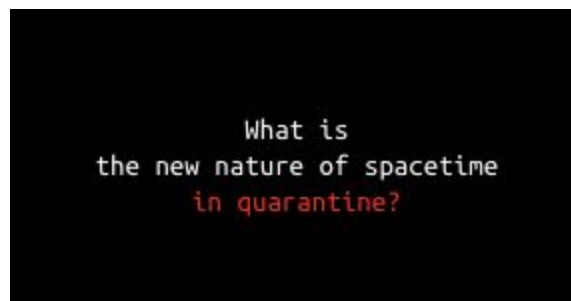


But what is clear, in all of these examples from The Cave to Manic Bot to Oogle, from the work of Lund to Chomko, to Wu, is that we **increasingly inhabit a hybridized reality**.

A reality in which the digital world of google maps shapes physical landscapes. In which Uber dictates traffic patterns.

And the reverse is true as well: a world in which our real identities shape the evolution of virtual communities and spaces.

And so the new nature of spacetime is both real & virtual, analog and digital, human and machine. In short: a hybridization.




I think all of these observations about the new nature of spacetime have become increasingly relevant in the time quarantine.

- Space has collapsed as we confine ourselves to our homes.
- Time has warped into infinite loops of monotony.

And as our worlds have gotten smaller, we've increasingly retreated into digital worlds with their own cyberspacetime metaphors.

Exploring the new nature of spacetime in quarantine is the objective of my latest body of work.



Losing My Dimension

13.18

The title of this work is Losing My Dimension. It's designed to be **viewed in both 2D and 3D** using red / cyan glasses, which unfortunately isn't possible tonight. That said, hopefully I can verbally recreate the dimensionality of the work.



The first vignette I created during quarantine is titled Macbook air.

I'll give you a little **demo**.

- move pane, collapse.
- There is a slider that controls the animation speed.

This was the first piece I created in this body of work. As I spent more and more time on my computer in order to escape from the confines of my living room, I began thinking about the **browser as my literal and metaphorical window** to the exterior world.

Which i think brings up an interesting question- what is the **meaning of interior and exterior** in cyberspace?

- During quarantine, “outside,” or what I might otherwise consider the natural environment, is most present in **desktop wallpapers**: uncannily-idyllic, oversaturated, static landscapes of Yosemite or caribbean beaches.
- I allude to this version of nature with “**Bliss**” - the title of the Windows XP rolling hills default desktop.
- when viewed with 3D glasses, the **3D houseplant** In the foreground **juxtaposes** the 2D landscape, further questioning the **meaning of interior and exterior space online**.

Macbook Air also attempts to speak to the **hybridity** of real and virtual space.

- The slider at the bottom of the page **controls** the clouds' speed, ultimately exerting control over the **natural environment**.

The slider also affects **time**, and evinces the bizarre power viewers hold in manipulating temporal internet experiences, as anyone who has ever watched a **youtube video** on 2x speed can attest.

Perhaps most Importantly, this work seeks to probe the nature of our spatial experiences **online**.

- tabs and **hyperlinks permit rhizomatic**, meandering journeys through seemingly infinite information-scapes.
- We can talk to friends and family all over the world instantaneously via **zoom**.. These experiences suggest a multi-dimensional nature of cyberspace.
- And yet, fundamentally we interact with web-based content on 2 dimensional **screens**.
- and all the while, we're quarantining in **1,000 ft** apartments.

And so you might describe cyberspacetime, or quarantine space more broadly, as simultaneously expansive and collapsed. Simultaneously multi-dimensional and flat.

- That is the effect I hope to **achieve through 3D glasses**.

- By encouraging viewers to see the work in both 2D and 3D I hope to encourage reflections upon the dimensionality of our digital and analog realities.
- When viewing Macbook Air, in particular, in 3D, the clouds appear set back into the viewing plane, but they still appear to be planar faces.

In short, we have lost a dimension in both physical and virtual realities of quarantine.



The next piece I'll talk about, Jungle Gyms, focuses more on the **confined nature of spacetime** during covid.

[DEMO - move around the scene]

Once again the outside world, in this case— a video of a cordoned off **playground—is presented as a 2D plane**, even when viewed with 3D glasses. A collapsed representation of real space, the playground embodies the experience of quarantine.

[DEMO - videos of playset]

The playset connotes innocence, youth, curiosity, and exploration; climbing, chasing, and swinging; this imagery **exists in opposition** to the foreboding caution tape flapping in the wind. The highly contrasted bright orange construction mesh **denies any possibility of free play**.

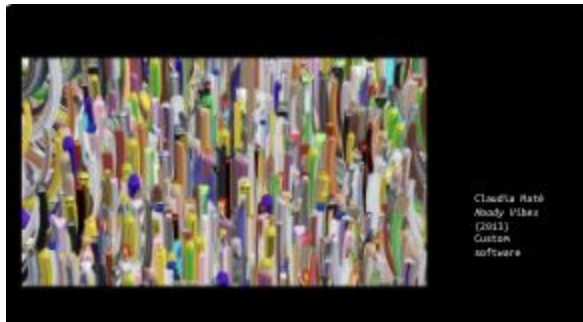
Although it is possible to zoom out and pan around the virtual scene, Both virtual and physical space have **limited ranges of motion**.

As the video plays in the background, the **pipe-screensaver**, a relic of Windows 98, runs and turns through 3D space,

- evoking the geometric patterns of children's jungle gyms.
- The screensaver simultaneously **slices up** the scene,
- further restricting space by creating virtual barriers, tangles, and cramped chaos.

On the subject of screensavers, i think they are also an interesting metaphor for quarantine time. screensavers are seemingly **infinite, looping, and monotonous**. As long as they run, they have no beginning nor end. They possess Their own epoch, separate and distinct from other computation time, that cycles endlessly until disrupted by a break in the void.

BACK TO SLIDES



Many of my considerations of time on the internet, and their relationships to our experiences of quarantine, were informed by an online **show curated by Rafael Rozendaal** titled, “quiet, calm, staring.”

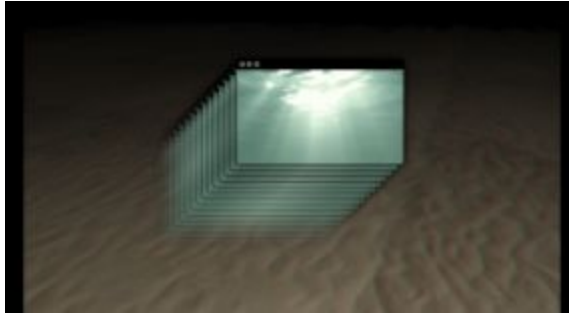
Rozendaal includes this piece, an emoji screensaver created by Claudia Mate, titled Moody Vibes, that cycles throughout time.

Discussing the curation, Rozendaal states, “**the way i see scripted movement is that it's like a waterfall or a fountain... always moving. doesn't stop, but it doesn't repeat exactly.**”



Insisting that “**Browsing [web art] has it's own rhythm, it's own flow of time, different from video, TV or cinema...**”, Rozendaal also includes works such as Olia Lialina's Summer (2003), a gif whose frames the artist separates onto disparate web servers in order to disrupt the playback speed of the swinging animation

BACK TO WEB



20:10

All of these considerations of time influenced my work, Xfinity Depths.

[DEMO] The scroll wheel on a mouse or trackpad cycles through frames of an underwater gif.

- Much like the nature of time in quarantine, there is **no beginning nor end** in this series of images.
- No forward nor backward.
- Time ebbs and flows in an endless amorphous pattern.

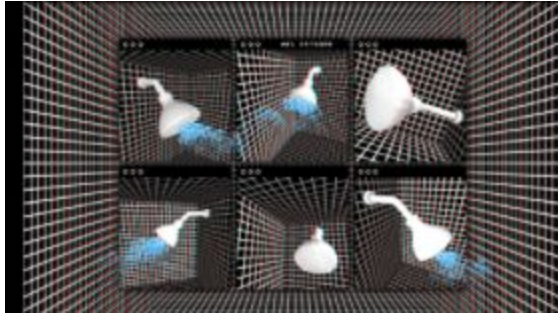
Within this work I've also been preoccupied with the **movement afforded by digital user interfaces**,

- in particular the **infinite scroll** of sites like Instagram.
- How do we **spend or lose time** in these endlessly unfolding digital spaces that suck our attention for hours of the day?

Like the other pieces within Losing my dimension, Xfinity depths also explores the **paradoxical** nature of web browsing: on the one-hand moving through **multidimensional** space, and the other, confined to a **2D plane**.

When viewed with 3D glasses, the **stacked frames** appear to sit **flatly** on the computer screen.

- [DEMO - moving panes]
- These flat frames **contrast** the 3-dimensional underwater landscape that recedes into the viewing plane. Water, in this piece as in others, serves as a motif for its connotations with infinite depth.



The third piece that I'll talk about in this body of work is titled Wet Streams.

When considering the nature of covid spacetime, I think the **question of home** and what that means in cyberspace is an interesting question.

- I've employed **domestic motifs** in Losing My Dimension to start to probe the domain of digital home-making.

[DEMO - move frames around and show emojis follow]

When i was creating This piece, however, i was primarily thinking about the lack of human **sexuality** and the physical separation between human bodies during quarantine, and in particular, the **use of the internet to supplant these human needs**. Wet Streams of emojis are a comical metaphor for pornography.

But also I think the showerheads speak to the **never-ending streams of video content**-> from netflix, HBO, or hulu -> streams pipd directly into our homes, that are connected to form of

- human intimacy,
- connection,
- and safe haven.
- What feels more like home, especially during quarantine, than **binge watching** your favorite show?
- Than **Netflix and chilling**?



The **nature of social space** is certainly one of the most dramatic shifts that has occurred during the pandemic. This piece, Cloud Confessionals, attempts to examine the meaning of Community and Social space online, in particular, the existence of **online worship**.

A live **broadcast button and time counter** suggests some form of

- **shared temporal experience** of the divine,
- an experience simultaneously spatially distributed between congregation members
- but also united, in a shared visual, present on the screen.
- The **webcam** also suggests some form of individualized, personalized experience with God, made possible through this digital portal.

When viewed with 3D glasses, the rectilinear Geometry behind the dove, moves into the plane, forming 3D steps akin to the **ascent to pearly gates**.

Just as the **motif** of water calls into question the meaning of depth on the internet, **clouds** probe another infinite, albeit in the opposite direction. We use metaphors of uploading to the cloud, as if giant, dematerialized networks exist high in some ether.

On the subject of motifs, **emojis** occur throughout this body of work. These semiotic symbols contribute a **playful, comedic levity** that, perhaps in the case of this work, seeks to

- satirize the quality of communication within spaces like Zoom.
 - On some level, the clapping Zoom icon may make possible a **new type of language**: one that is concise and joyful.
 - On another level, the Zoom emojis might indicate a **limitation of Zoom**, for example, the difficulty of having multi-channel conversations within a large online class.

The **submission form** ultimately opens up a critique, both of the quality of online community but also of the nature of **privacy online**. Users can submit confessions to the cloud through through a de-personalized, static, rigidly-structured form: **a black box**, a computerized data collector that obscures its human recipients.



25

Upon submission, the user is redirected to a page of **floating secrets**: files that reveal, upon double clicking, **tweets** submitted with the hashtag confession.

Cloud confessional probes the nature of **public vs private space on the web**.

- By demanding access to webcam data and audio control,
- by asking for personal confessions without an explanation of how and where this information will end up

the work attempts to make viewers call into question their safety and privacy online.

But at the same time, Cloud Confessional **potentially implicates the user** in this privacy breach.

- Speaking for myself, despite making a project about surveillance capitalism, I still allow google to track my position, maybe because I have deployed this geographic information in useful ways?
- As the confession tweets reveal, social media has become a **publicly merking space** full of intimate information.

Ultimately, I hope the **viewer arrives at their own conclusions** regarding the dangers of privacy and data sharing online.



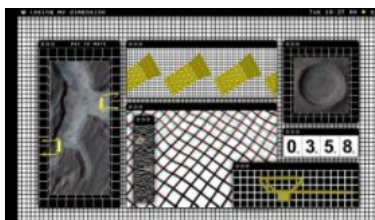
In the next two works, I reflect upon the **potential for digital escape** during the pandemic. An escape that is frequently feels necessary (from trump, or the confines of quarantine).

This piece, titled Hard Drives on Seashores, was inspired by an article I read at the beginning of quarantine regarding the use of Google street view as a substitution for travel.

I think the **juxtaposition the idyllic, blue-sky island** (Which appears 2D when wearing glasses) in contrast to the sullen, Corona-bottle ridden 3D virtual landscape, establishes the image of **Google Maps as an unattainable fantasy**. And yet, fundamentally, this is a flat, static form of paradise that insufficiently stands in for the real equivalent.

A second critique, which may be specific to my own lens that comes from researching Google Maps, sees this Google imagery as form of **colonial extraction**.

- A problematic **virtual voyeurism** that arises when we “virtually visit” the sandy white beaches of Fiji
- without interaction—either cultural or economic.
- Street View allows armchair travelers to **extract the visual without payment to the indigenous.**
- This pendant for the exotic, symbolized in both the analog and digital palm trees throughout the scene, exists within both virtual and physical realities.

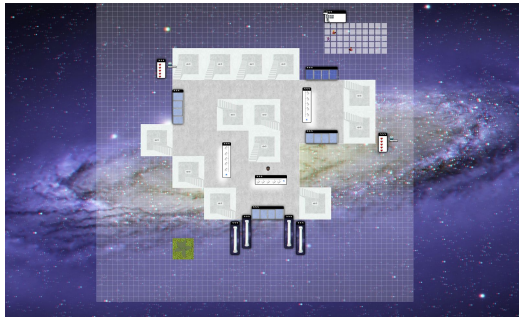


Esc to Mars also probes the **nature of escape**.

- I used 3d images taken on the **Mars rover** to generate the **3D pools**.
- I attempted, through the composition of frames, to create a **dashboard** aesthetic, that you might encounter on a ship or video game.
- The rotating 3D diving board, for example, is reminiscent of a **cyclical sonar** detector.

[DEMO - click the buttons to change the water level]

While I hope the viewer contributes their **own perspectives** on the quality and legitimacy of digital escape, the fact that that 3D glasses create an illusion of space informs the viewer that this experience is just that: **an illusion**, crafted from flat planes of color. **With or without technology, the confines of quarantine persist.**



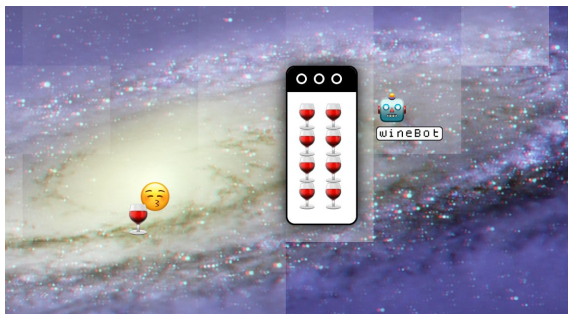
Most recently I have been developing a **communal space** for an online thesis exhibition where users can chat, view this body of work, and submit critiques.

Thinking through the temporal and spatial realities of both traditional and internet-based art galleries has raised many questions.

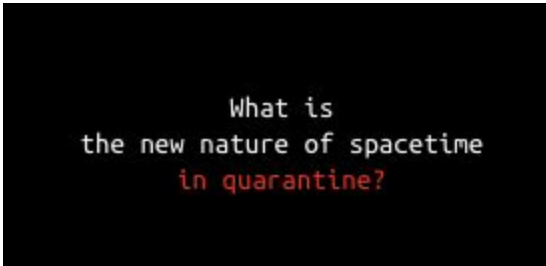
- What is the nature of the **white cube**?
- How does it facilitate or detract from the process of viewing, analyzing, sharing, and enjoying art?
- What social and economic **barriers** (for example, systemic racism) prevent access to the art world, and how do these barriers operate online?

While I certainly do not have many answers, I think the process of building, questioning, and reflecting upon the online gallery is an appropriate exercise that fits within the framework of Losing My Dimension. Like each work in the series, this gallery encourages considerations of how the spaces we inhabit are shaping the quality of our interactions and movements.

BACK TO SLIDES



What I do know for sure, there will be a **wine bar**.




What is
the new nature of spacetime
in quarantine?

And so in closing, what have we discovered about the nature of spacetime during quarantine? I hope that this work reveals a **set of paradoxes**, of space as simultaneously

- Analog and digital
- Multi-dimensional and flat
- Liberated and confined
- Connected and isolated
- Private and public
- Safe and exposed

A era in which **time** warps, loops, and repeats; where beginnings and ends merge, a black hole waiting for a crack to break the cycle of infinity.

Whether we choose to see the **negatives or the positives**, ultimately depends upon the narratives we bring to the work. Regardless, I hope to inspire nuanced reflections upon the ways in which our temporal and spatial experiences are changing in these uncertain times.



Thank you!

Questions - why 3D glasses?

- we don't really think about the loss of the z dimension when we're checking emails
 - giving form to content that we expect to see in 2D encourages the viewer to reflect upon spatial experiences = both online and in quarantine
 - tool to really highlight, exaggerate flatness of cyberspace
- a metaphor
 - act of removing glasses find that our world has collapsed;
- experiencing web content helps to blur virtual and real