







enter
TECHNOCENE

To Each His Own Chimera a poem by Charles Baudelaire

Beneath a broad grey sky, upon a vast and dusty plain devoid of grass, and where not even a nettle or a thistle was to be seen, I met several men who walked bowed down to the ground.

Each one carried upon his back an enormous Chimera as heavy as a sack of flour or coal, or as the equipment of a Roman foot-soldier.

But the monstrous beast was not a dead weight, rather she enveloped and oppressed the men with her powerful and elastic muscles, and clawed with her two vast talons at the breast of her mount. Her fabulous head reposed upon the brow of the man like one of those horrible casques by which ancient warriors hoped to add to the terrors of the enemy.

I questioned one of the men, asking him why they went so. He replied that he knew nothing, neither he nor the others, but that evidently they went somewhere, since they were urged on by an unconquerable desire to walk.

Very curiously, none of the wayfarers seemed to be irritated by the ferocious beast hanging at his neck and cleaving to his back: one had said that he considered it as a part of himself. These grave and weary faces bore witness to no despair. Beneath the splenetic cupola of the heavens, their feet trudging through the dust of an earth as desolate as the sky, they journeyed onwards with the resigned faces of men condemned to hope for ever. So the train passed me and faded into the atmosphere of the horizon at the place where the planet unveils herself to the curiosity of the human eye.

During several moments I obstinately endeavoured to comprehend this mystery; but irresistible Indifference soon threw herself upon me, nor was I more heavily dejected thereby than they by their crushing Chimeras.



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dictionary

tech•no•cene

noun Embodied human communication within the Anthropocene.
Existing at the intersection of technology, and the body.

The design industry has developed technology that is, paradoxically, isolating. The exposure to a vast audience in the digital sphere has introduced new societal pressures, leading to a disconnection from our immediate surroundings, detached, and donning metaphorical masks. Technocene lives on the fringes of the discipline by blending conceptual thinking with practical application. Through curious, experimental artifacts, it prompts us to shed our masks and embrace vulnerability. Technocene endeavors to reimagine the human experience by acting as a discursive design project. It probes the boundaries of possibility wherein all beings are equipped with an extension of the human body (chimera) that serves as a modality of communication. Personifying emotion into unrestrained physical gestures and the impacts that it may produce on our ability to empathize with fellow beings.

Chimera aims to enhance human experiences by externalizing internal emotions. Using wearable soft robotics, fosters connection and communication by translating emotions into tangible outputs. Challenging conventional notions of self-presentation, it catalyzes introspection and extrospection. These robotic augmentations mimic biological responses, creating a shared language and visible expressions of our inner states. By embodying emotions externally, Technocene explores how this impacts human connections. Creating a sense of dynamism and collectivism that transcends isolation by fostering intrinsic links among people.









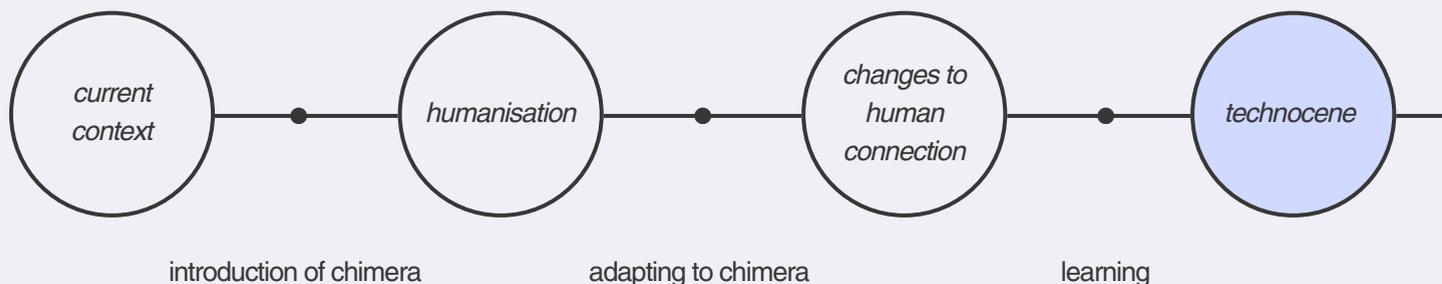


Technocene is not a traditional industrial design project. It is a discursive design project that exists within the current digital age. It comments on the curtailing of human-to-human connection, and the lack of vulnerability within our current context - a state guided by social media and the digital sphere. It proposes a landscape where we let go of self-preservation within a world that feels like everything and everyone is looked at under a magnifying glass. A space where everyone wears a biomimetic extension of their body which acts as a vessel of communication by translating internalized emotion into tangible gesture. Chimera is designed to see human behavior and the ability to move beyond themselves. Would we be more likely to engage with individuals who are experiencing a certain emotion - when it is at the forefront of our perception? Conversely, how can this hyper-vulnerability change our relationship with ourselves, and possibly our core community?



where we are now

where I intend to take us



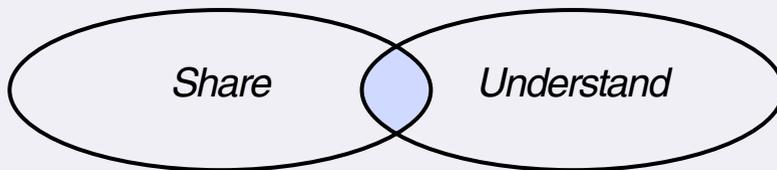




EMPATHY

Em·pa·thy /empəTHē/

noun, the ability to understand and share the feelings of another.

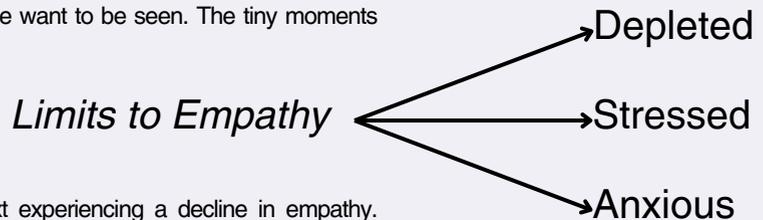


To fully understand empathy, we need to differentiate it from sympathy. Growing up, my English teacher used to tell me that the worst word in the English language is sympathy. Sympathy is the ability to show sorrow, commiseration and feelings of pity for others' misfortunes. The reason this word is still polarizing for me, as instilled by my English teacher, is because it involves pity. By including pity, you are automatically placing yourself at a higher level than the person/s you are engaging with. It is self-fulfilling - an act you're engaging in to bolster your own actualization needs. Empathy on the other hand is the ability to put yourself in the other person's shoes and experience their circumstance. It brings in a collective, something shared, and something that can be acted upon. The sense of community, from a micro to a macro level.

Feelings are something we all have in common, despite the systemic and psychological barriers that may exist among us. Emotion and empathy are uniting, creating a common congregation space for us to just be; free from the variations among us.

We used to socialize and foster an emotional symbiosis with people before the dystopia of the digital age and social media. Having personal devices has made us more connected than ever; we can access things from across the world in a split second. However, this level of connectivity has disconnected us from people. We have created metal and glass devices through which we send data that goes through waves and wires to a receiver. This made most human gestures feel mechanical and robotic. Our medium of communication has disillusioned us. It is way easier to not feel empathy through headlines, posts and stories. We are consuming media at a rate we are unable to fully comprehend which makes us numb to them.

Giving us the power to go online and judge, make catty comments and see real people as a source of entertainment. We have adapted and evolved to our desensitization. We have seen how we judge through screens to form our shields, those that protect us. We do not share our intimate selves with the world to safeguard our being. I know so many people who feel the same way, I too am a victim. Friends do not want to talk to friends about what is brewing beneath the surface, couples do not want to talk to one another when things are fizzling and kids do not want to talk to parents about their struggles. It is important to always have a picture-perfect life because everyone seems to have that. But it's not real, we show a highlight reel of what we want to be seen. The tiny moments glimmer from the mundane.



We are leading into our current context experiencing a decline in empathy. Empathy comprises both the ability to share and understand what other people are going through. Creating a collective empathy that serves as a natural human resource (Zaki, 2017). Our collective empathy is eroding, because there are limits to our empathy. We are unable to be empathetic when we are stressed, anxious, overworked, overwhelmed and depleted (Novak, 2023). With how hyper-productive we are, we are almost always at our limit, hindering our ability to be empathetic. Similarly, when our values or ideologies clash, we tend to form silos by tuning people out. This combination of isolation and reaching our limit, makes “compassion feel endangered” (Zaki, 2017).

Chimera helps you tune into other's emotional frequencies, by bearing emotion outwards - moving away from isolation.

It creates an explicit showcase of one's internalized being and provides an opportunity to engage, even if systemically we have reached our saturation point. It creates a situation in which expression cannot be ignored, providing the viewer the ability to practice and engage their empathy. It is the difference between crossing the street when seeing an unhoused person, versus engaging with them. It is through these conspicuous circumstances to see how people truly engage. Technocene and chimera do not promise to create empathy, but rather act as a tool to create behavioural change in a world with declining empathy. It shows that empathy is a skill that can develop and evolve with time rather than an inbuilt trait (Zaki, 2017).





Ghost in the Machine by Solána Imani Rowe and Phoebe Bridgers

Everything disgustin', conversation is so borin'
Heard about what?
"I hate her", "I don't agree", "I did it first"
I give a f***, I just wanna f***, eat, sleep, love, happy
Can you make me happy? Can you keep me happy?
Can you distract me from all the disaster?
Can you hate on me and mask it with laughter?
Can you lead me to the ark? What's the password?
I need humanity
Y'all lack humanity
Drownin' in vanity
Cravin' humanity
Everybody wanna be beautiful, scared of the unusual
Scared of givin' mutual respect, all that you hate
You reflect all that godlike
You forget how to love somebody
I hate everybody, I hate everyone
Robot got more heart than I
Robot got future, I don't
Robot get sleep, but I don't power down
I'm wide open, I'm awake, I'm on autopilot
I'm out of my mind

BIORESPONSES

A bird and its hackles, a puffer fish and its spines, a dog and its tail - animals possess bio-responses that communicate their internal state. It is something overt, visual and cutting. Even without a stream of language between us and other organisms, we can decode their vernacular.

Bio-responses are learned or innate responses to stimuli as a means of protection or reproduction. Human beings have similar responses but are more covert in nature. Our expression changes, we begin to sweat, our skin gets goosebumps, our hands tremble, the blood thumps in our veins, and we get short of breath. *There is a degree of closeness required to see these nuanced and subtle showcases of our internal state.*

With chimera, I am creating an overt biomorphic response to human emotion, as a means to create a stimulus to attract attention. It is an external emotional muscle that can grow, strengthen and adapt to you.



BUILDING A BODY

movement

soft

shape

repeated

pulsing

rhythmic

The functioning of the body and the parts that make the body feel like a body are often overlooked. We all have bodies, we live in them, but we don't think about how unique the body is. It is rigid with bone and cartilage, soft with skin and flesh. The body can bend, turn, and rotate. What components are required for a body to feel like a body? Since I am designing a bodily extension it is important for it to *feel domestic and not foreign*; something that has grown and evolved rather than an addition. It needs to function like how our bodies would. To understand how to build a body I look at the "building blocks" of the body; skin, flesh, muscle and bone. The bone provides *shape and structure* while the flesh and muscle that encapsulates the bone add *support and form*. It is a beautiful collaboration within us that works together. Thinking about creating an extension of something that is both *organic and parametric* at the same time is challenging. What is important is that the extension must have some three-dimensional movement; *pulsing, breathing, lunging*. The extension should have both a *soft quality* and a *rigid structure* to flow with the body. Lastly, the structure should be organic; when I think of a body I do not see straight lines or edges; I see *undulating planes, and curves, almost like a topographical map*. My challenge will be how the visual language, material, form and design work together to create a human-like outcome.

organic

three dimensional



SKIN

**the skin embodiment //
the autonomy of
bodily communication**



Words, gestures, and expressions are how we communicate our feelings, thoughts, fears and aspirations. Our skin is an *evocative organ*, it lives and breathes, reflecting each physical and emotional pulsation. Can we use our largest organ to communicate our innate sense of self as a means to *create human-to-human bonds*?

I have imagined a world where a *cause-and-effect* relationship can be reflected through our largest organ. Unexplained and unintentional, you wear your vulnerability on your body, shedding the mask that has grown and hardened with time. A mask that “protects” us from the perception of others but also prevents us from authenticity. We cover our bodies in garbs that reflect who we want to be and how we want to be seen but stripping that away - who are we? Can our vulnerability be the salvation we have been looking for on this non-stop, ever-revolving planet? Let us let our bodies breathe and speak and shout and cry!

We all have skin, it is our last layer before our body ends and the environment begins. We touch it, we feel it and we speak with it. Our skin tells stories of our past, like a diary marked with “yours truly”; the scars from our childhood, the stretch marks from our growth spurt, the blemishes, marks, and texture tell the inherited story of us. Conversely, our skin tells the story of the people who passed it down to us. Like a tree engraved with lovers' names, our body is marked. It has become a dimensional canvas that changes with time, season, and age. Exploring the authenticity of skin and creating a connection with those who will be able to understand us from the *inside out*.

The goal is not to create something beautiful but something that is striking. Creating an engineered inflatable skin, which generates a response; causing the viewer to do a double take. The power of this project lies in the embodiment of the artifact, its form and material - and I hypothesize that it serves as an agitator to produce certain behaviour.

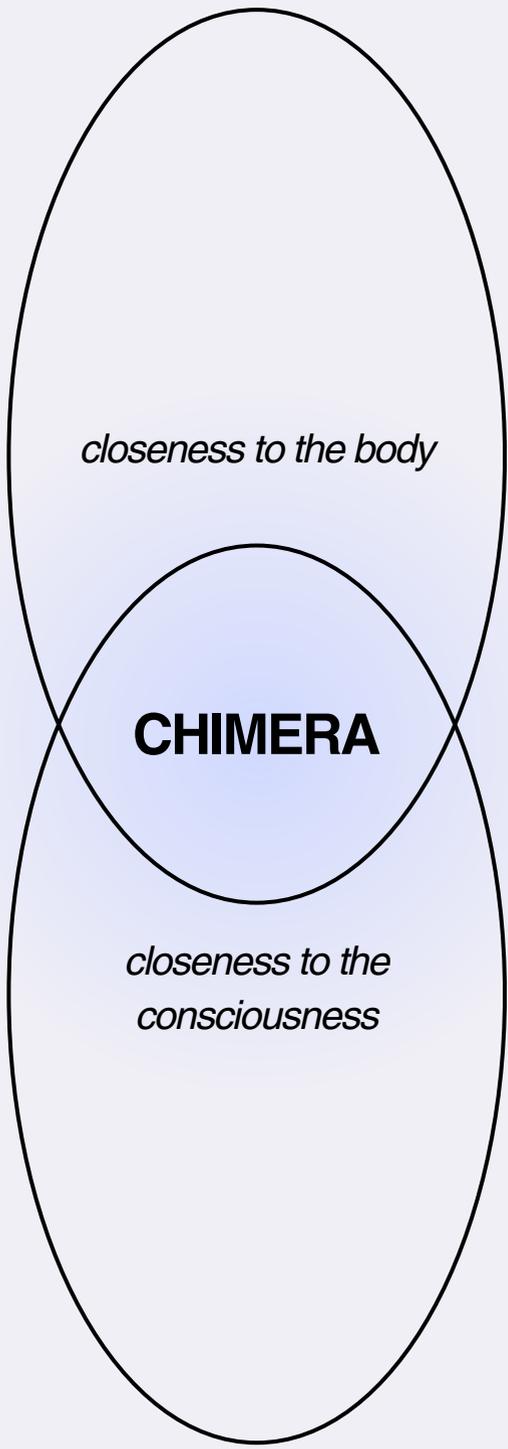
**extension
of the body**

closeness to the body

CHIMERA

*closeness to the
consciousness*

tangibility



THE FACE

The face, the face, the face. It is the gateway to a person - the first thing you notice - the first thing you remember - and the first thing you realize. The face is incredibly unique, despite all beings having the same features, eyes, nose, and mouth; there's so much variation among us. We are a culmination of genetics passed down to us, which decides how people perceive us on an initial level. The face tells us so much about where we are from, who our parents are, and what our disposition is.

I am choosing to work with the face because it is the first thing you notice about someone, it's your first impression. The face can tell you so much about the person's age, gender, and emotion. Since it is the place of first impression, it also leads to generalizations based on attributions. We associate certain glances, and movements, and relate that to "knowing" someone based on our conditioned experiences. These generalizations are natural and we cannot stray from them as they are ingrained in the textiles of our lives. However, it does hinder our ability to give someone a clean slate even when meeting them for the first time. Think of the last time you saw someone, you would have thought they had kind eyes or a cunning smirk. We see so many faces, and we read into their variations, so choosing the face and creating an absolute language was the core of technocene; as it is a social technology. The face is the most memorable part of someone, as it holds so much information. The augmentation is designed to contour the face that retain the lines of expression, like the smile lines, bunny lines, and crow's feet. I did this to create a shield and let the design speak versus the details that can derail our interpretation of a person's visage.

Think about when you do not know someone's name. Making it our main identifier, and is one of the things we cannot hide. Being our main identifier, creating this physical mask comments on the metaphorical mask we don to safeguard ourselves. Since I am working with externalizing emotion, the place where emotion is the most overtly expressed is the face. It is the organ of emotion, creating a dynamic canvas. Facial expressions are our main communicators when it comes to sharing how we are feeling with those around us; they come in the form of a big smile, a tear, and pursed lips. We "encode" messages in our facial expressions, and we simultaneously "decode" the faces of the people around us. This familiarity of the face as a communicator would make for a seamless transition between reading one's face to reading the technocene augmentation which is placed on the face. Creating something visually striking and conceptual, I want to ensure that the viewer sees how implementable technocene is in the present context, thus it was important to me to assess current human behavior when creating my project. Proving further the space I am cultivating for technocene.



first impression

attributions
(B. Jager, 2021)

memory

signals

generalisations

emotion

uncovered

**nonverbal
communication**

*We "encode"
messages in
our facial
expressions,
and we
simultaneously
"decode" the
faces of the
people around
us.*



FOREHEAD LINES

FROWN '11' LINES

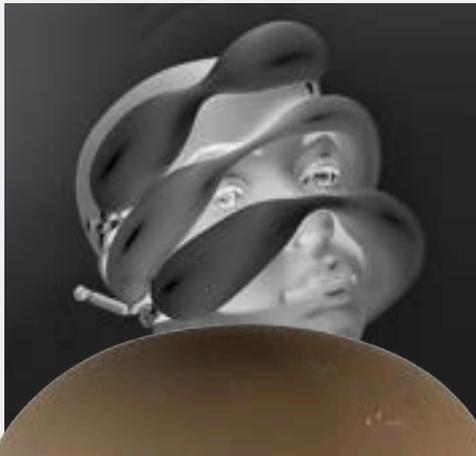
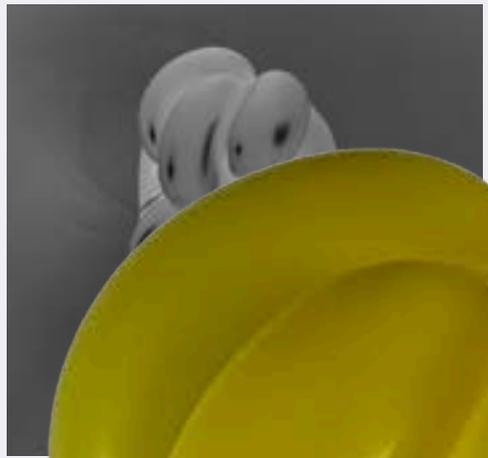
CROWS FEET

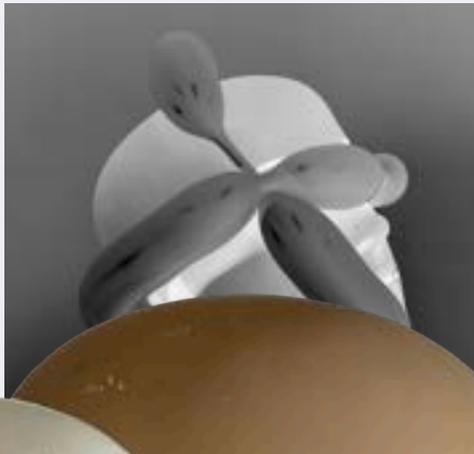
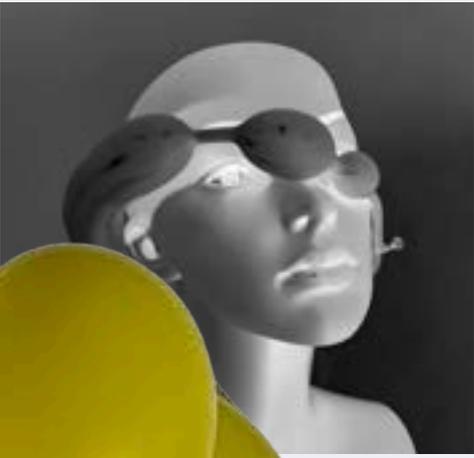
LATERAL CANTHAL LINES

BUNNY LINES

LAUGH LINES

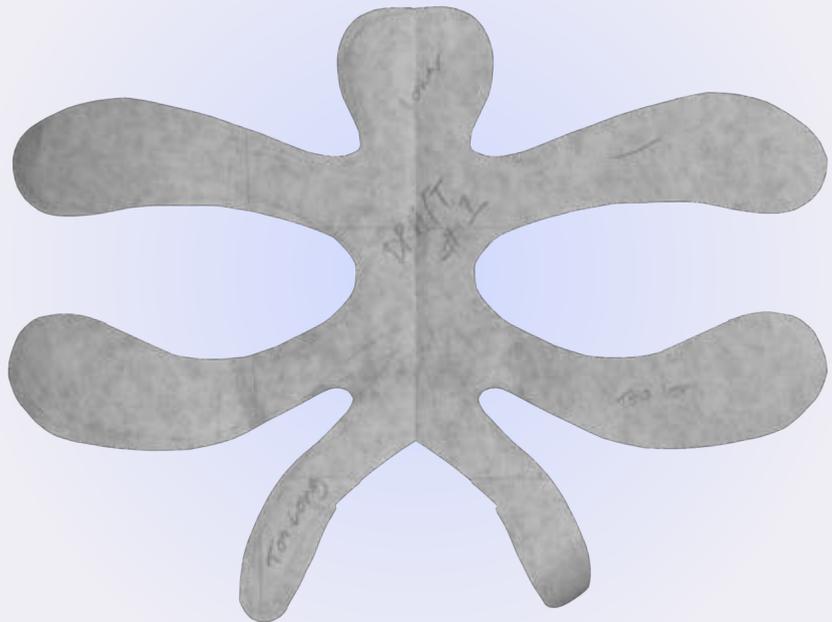
MARIONETTE LINES





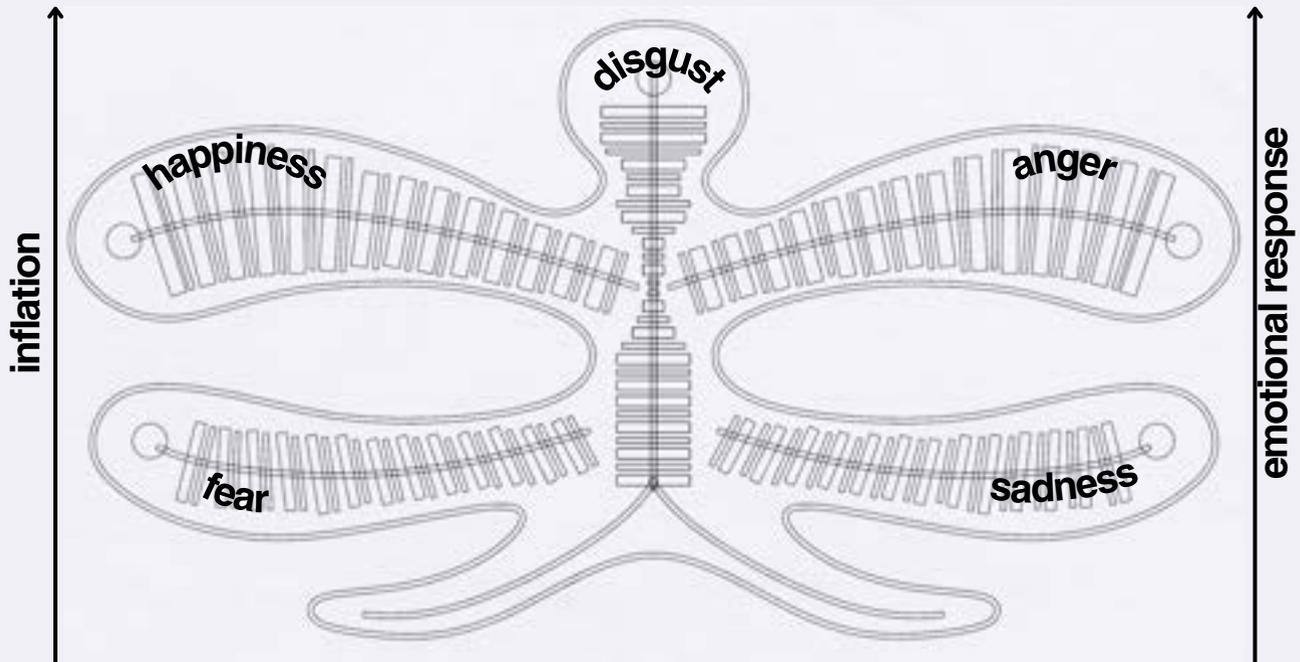
THE LANGUAGE OF THE FACE

As a species, we all have the same basic emotions, which are happiness, sadness, fear, disgust, and anger. The emotions through evolution, like animals, are there to protect us. As we grow up each of these emotions begins to split and subcategorize into more nuanced emotions





READING CHIMERA

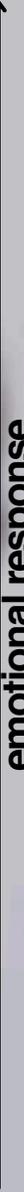


Chimera reflects the five basic emotions by having five separate chambers. Each chamber represents a specific emotion. Creating a new visual and tangible language. Like the primary colors - these primary emotions are the elemental unit of more complex emotions. Since human emotion is nuanced, oftentimes a combination of the basic emotion - multiple chambers may inflate at once. The degree of the augmentations inflation shows the level of the emotional response. This gives chimera the ability to effectively represent your internal state, and allows viewers to accurately engage.

inflation



emotional response



AGITATOR

With chimera I am creating an agitator; something that is atmospheric and causes some form of disruption. I am taking myself out of the notion that I need to produce certain behaviours but rather witness and assess the effects the artifacts have. I hypothesize that the nature of this project would generate a response because of its unconventional appearance and function.



Studying industrial design has always taught me to identify a problem and then solve it. It involved me finding problems, and applying a framework (research, ideation, sketching, making, reworking, testing and proposing) to it. However, the issue was right in front of me; often I was actively looking for problems to solve, thereby creating problems which do not exist. It was my first time confronting my design bias, where I had to take myself out of my demographic and stop designing for myself. In reality, the most high-tech, state-of-the-art product might just cause more disarray within that given system. So I am not looking to solve a problem, nor am I trying to create a problem to then solve. Since I am dealing with a nuanced area of human behavior, especially in social and collective space, solving a problem is not possible. My goal is to see the change in human behavior with the introduction of externalized emotion and a growth in collective empathy. Technocene does not directly tackle the decline in empathy by coercing people to empathize with their counterparts but rather it acts as an agitator.

current world
(interactions, communication)

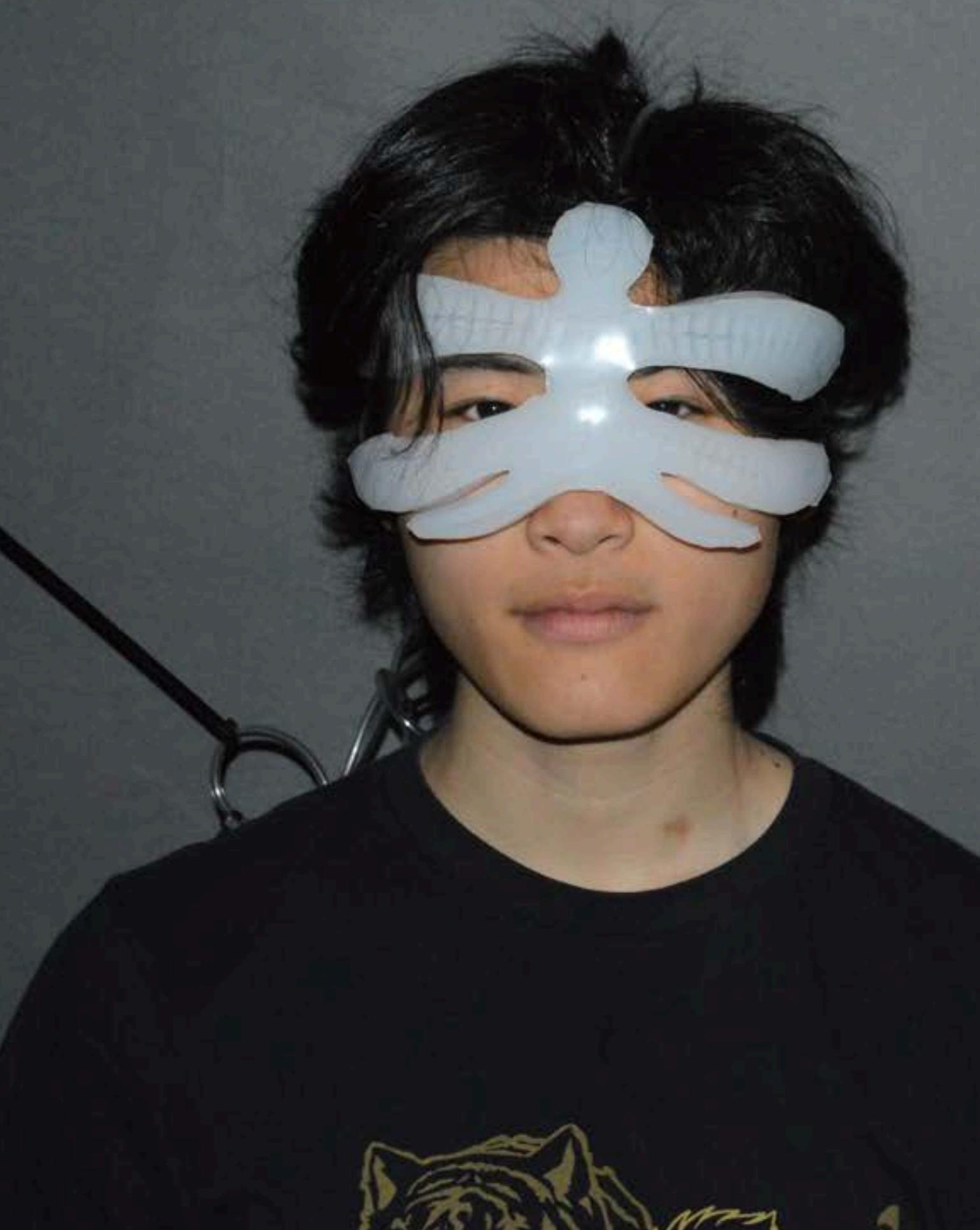
**technocene
(the agitator)**

effects on the
current world

I have defined an agitator, within the context of my project, as an artifact/s that can cause a disturbance (positive, negative or neutral) within the context it is deployed. In the case of technocene, the agitator is the embodiment of the artifact and the disturbance caused by its existence. It takes something simple like human interaction and bubbles it to the forefront, by overtly changing how we interact with ourselves and those around us. Creating a circumstance that is unimaginable within our current space, thereby using shock, intrigue, curiosity and vulnerability to generate a response. Technocene is cultivating an atmospheric experience, and painting a context of a new norm. A universe in which we are all equipped with identical biomimetic augmentations that communicate emotion externally. It does so by making something not only close to the body but also close to your consciousness and the consciousness of those around you. The embodiment of the artifact and what it is communicating will, I hypothesize, compel individuals to confront their internal thought process of whether to engage or not. This approach takes me away from the context as a problem solver; it removes me from the equation. This would allow the design to be deployed and act for itself, and my role becomes that of an analyst and thinker. This would create a path to assess the individual's choice to practice or not to practice empathy. Creating a sense of community or creating a silo.



I am not trying to create empathy but rather to analyze human behaviour and level of engagement; and how it may vary depending on the individual and who they are engaging with. Are we more willing to engage with someone of a different demographic (socioeconomic, age, race, etc)? Are we more willing to engage with ourselves?





EXPRESSION

Drawing inspiration from countercultural movements such as punk and queer, technocene adopts a stance that is both *celebratory and disruptive*. It champions the radical notion that authenticity comes from baring something deeply intimate with all. It has a focus on expression, identity and vulnerability. Using these guiding principles, *technocene catalyzes personal and societal transformation, by illustrating a world where we embody our emotions*. How will this change how we interact and communicate? Will we feel more obliged to extend ourselves to those around us?

Expression plays an essential role in emotion. Each of us expresses ourselves uniquely, almost like a snowflake. Hence, rooted expression and identity, designing for all allows for the success of social technology. With the introduction of personal technological devices, our expression has been disfigured. We are not only grappling with social norms but have introduced new pressures in the form of fads and microtrends. Forming an “in” and “out” group, where we change ourselves to fit IN the mold. The way we determine worth and self-esteem is largely dependent on the following. I would say this is more pertinent to young adults who are in the process of cultivating their own personal identity.

Making the group more susceptible to the bulldozing of individuality. Stripping everything back, at our core we are human beings, that's our one uniting factor. Chimera disrupts the path we are intended to follow by being the antithesis of a false collective by embodying our emotions. This would allow for community and connection from a place of authenticity (self-expression) which would be unwavering, unlike micro-trends which are cyclic. It is able to catalyze personal and societal transformation by changing the way we understand ourselves, and those around us, how we communicate, our interactions and finally how we act with technocene as the new normal.

This radical design needs to give props to the counterculture movements, as without them I would not have space to create. The queer culture is able to take darkness and turn it into something bright by embodying their identity fiercely. The bravery of expressing an identity that was “taboo”, acts as an example of vulnerability - the hardships that may stem from it but the transformative power it has on a collective “out” group.







MAK

A close-up, soft-focus portrait of a woman with dark hair, smiling warmly. Her right hand is raised towards her face, with fingers slightly curled. She is wearing a light-colored top with a blue and white striped detail. The background is blurred, showing hints of an indoor setting with light-colored walls and a purple object in the upper right corner.

KING

















Brandon Ulin - 21
He/They
Latino



CAS

*User #1 is questioning
uncertain about who they
They're exploring different
seeking reaffirmation from
relationship remains a safe*

Dylan Lee - 21
They/Them
Asian

SEI

*their identity and feeling
are and where they belong.
aspects of their identity and
User #2 - to ensure that their
space.*



Brandon

"It has been a hard year, I am not entirely sure - I am letting my guard down the way I express myself is not how I feel inside."

"Have you ever felt like that before?"

"I have been having gender moments recently."

"It's exciting but also scary. Growing up I always had to put on a masc persona because like I grew up in a Latino community. But now that I am free, I am 21 now, I have been seeing some new things."

"It's left me at a place where I am like; who am I? or everything I know about myself was a lie?"

Yeah... it's hard to express it verbally, orally. I recently wore a skirt out.

"I felt like I was translating myself in a more authentic way. How do you express yourself?"



Dylan



"Absolutely, I started thinking about identity stuff, in junior year - do you think anything this year has brought that out in you?"

"That's EXCITING!"



"It was around Covid when I came out, which was nice because I did not have to see people. It was a soft transition, with a lot of difficult conversations. I don't know, yeah."

"SICK!"



"Back when I was exploring this stuff before - clothing was the main one, sort of exploring that. I felt a little bit of a mismatch. So I started hormones the first day of college - or the summer? My dad, in particular, was intense on surgery versus hormones because he felt it was more reversible. Which was scary for me. Now I just dress how I want, regardless of what I wear I feel androgynous enough."





Name (Full): Brandon Ulin

Age: 21

Ethnicity: Latino

Pronouns: He/They

Did you find Technocene's responses helpful in navigating the situation presented in the scenario? Please explain.

I think the technocene did help in providing an external comfort when having a vulnerable conversation. Seeing emotional conversations take a physical form was different and made me feel more comfortable.

Did the externalized emotion response change how you handled the scenario at hand? Please explain.

It did! It made me more comfortable to share some vulnerable parts about myself.

How did Technocene enhance or hinder the scenario and your engagement?

I think it enhanced the scenario by providing another outlet for emotions to unfold.

Did you feel obligated to respond when emotions were externalized? Please explain.

I don't think I felt obligated, but encouraged. Seeing it inflate on my partner was comforting and it felt like I was being seen in a new way.

How did it feel to be augmented and have your internalized state reflected outwardly?

It felt weird because I felt very visible. But at the same time, it added more weight to what I was saying.

Was Technocene able to understand your own internal state?

Yes, during our convo, I felt disfigured and demystified and the technocene reflected that.

Did the Technocene's suggestions align with your expectations and needs during the scenario? Why or why not?

Yes, as the conversation got more meaningful, the technocene aided in facilitating regulating my pace and emotions.

Did you feel an increased emotional connection with your partner while wearing Technocene? Please elaborate.

Yes, I felt like I was able to trust him. Both of us having the technocene made me feel more comfortable.

Consent to Participate in Research

Sign Here



Date

4/19/24

Name (Full): DYLAN LEE	Age: 21	Ethnicity: Chinese/Taiwanese	Pronouns: They/Them
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Did you find Technocene's responses helpful in navigating the situation presented in the scenario? Please explain.

At first I thought this was hard as a question bc I was trying to ignore it (the Technocene) & focus on the conversation, but I think it helped break the ice & serve as another thing communicating when we had pauses in our conversation. Also, ~~it was~~ ^{it was} ~~harder~~ ^{harder} to ignore it definitely made me ^{more actively work to listen & give full} ~~more~~ ^{attention.}

Did the externalized emotion response change how you handled the scenario at hand? Please explain.

See above!

How did Technocene enhance or hinder the scenario and your engagement?

I thought it enhanced the scenario by hindering it; ~~it~~ it is kind of hard to see out of sometimes & makes funny noises so it was I had to be that much more deliberate about paying attention.

Did you feel obligated to respond when emotions were externalized? Please explain.

I felt obligated to respond because Vir wanted us to interact for their project & I wanted to do a good job.

How did it feel to be augmented and have your internalized state reflected outwardly?

I really enjoyed it! It helped move things along while we weren't talking. It also felt funny when I was wearing it.

Was Technocene able to understand your own internal state?

Yes - it felt very synced up with what we were talking about.

Did the Technocene's suggestions align with your expectations and needs during the scenario? Why or why not?

I wasn't sure if it was suggesting anything, it felt more like it was just expressing what I was talking about or hearing.

Did you feel an increased emotional connection with your partner while wearing Technocene? Please elaborate.

Yes! We were already talking about a fairly personal topic but I felt like the Technocene & the absurdity of the situation helped break the ice a lot. It felt like a second layer of communication ^{even when we weren't talking} ~~even when we weren't talking~~ ^{in a way} ~~in a way~~.

Consent to Participate in Research

Sign Here

Dylan Lee

Date

9/18/24





“it helped break the ice and focus”

“it felt like it was expressing what I heard and talked about”

“made me feel more comfortable to share - vulnerable parts”

“it felt like another layer of communication”

“I felt encouraged by seeing it inflate”

“it enhanced the scenario by hindering it - it was hard to see out of and sometimes make noises - so I had to be more deliberate”

“technocene and the absurdity lets me talk about fairly personal topics”

“as the conversation got more meaningful - it aided in regulating pace and emotion”

“it served as another thing communicating when there were pauses”

“it felt weird because i felt very visible”

“(it served) another outlet for emotion to unfold”

Brandon and Dylan, initially strangers, quickly engaged in vulnerable, raw, and personal conversations about the challenging topics of gender and identity. These discussions, which are difficult to share with others and even to admit to oneself, flowed candidly between them. They delved into family pressures, difficulties in coming out, and the freedom to express themselves away from home. Brandon credited the embodiment of chimera as providing external comfort when having challenging conversations as the augmentation created a physical representation of their dialogue. Dylan felt like chimera helped break the ice and beckoned for attention, grabbing their focus and engagement. Both individuals felt that the augmentation actively made them listen, respond, and engage.

“provided an external comfort”

Observing their interaction was a beautiful experience; they seamlessly riffed off each other, asking sincere questions and actively listening. The chimera served as "another outlet for emotion to unfold," encouraging both participants to respond whenever chimera reacted, leading to deeper and "more meaningful" conversations.

What particularly surprised me was the humor introduced by the inflation of the augmentation, which helped alleviate tension. The sound and look of the inflation encouraged the subjects to tune into one another more closely. Additionally, the visibility of the augmentation, made the subjects feel exposed but "added more value" to their words, enhancing the depth of their conversation.



Angel Cherman - 23
They/Them
Mixed



CAS

*User #1 and #2, are a young
a past miscommunication.
their point of view but have*

Cassius Pickens Rich - 22
He/Him
Black

SE II

*g couple, disagreeing about
They try to communicate
reached a roadblock.*



Angel

"Go ahead! You wanted to speak first. Basically, you did not show up for me, and I am feeling disappointed by that."

"I tried - but I got caught up in traffic. And I ended up going later on, but I was not there for the reception. But I am upset because you didn't show up for my show at all and did not bring me flowers or anything when I did that for you."

"I don't know. Cause I felt left out. And everyone else showed up."

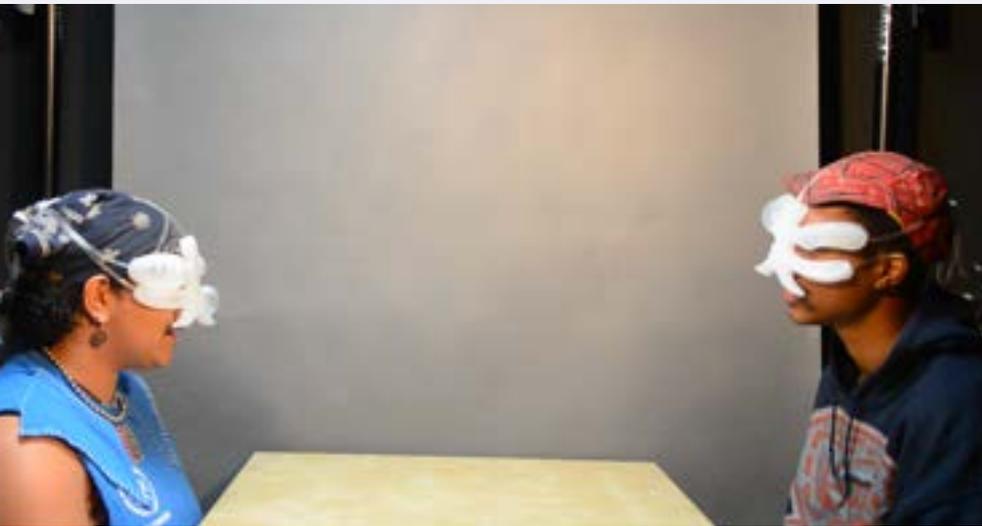
"I don't even know how to fix that or make it up - because we can't recreate the moment again. "

"And I missed yours... I went but-"

"Yeah, but I still do feel upset."



Cassius



"You did not show up for me?"

*"I did go to your show, same as you,
but you were not there."*



*"So you were hurt cause I wasn't
there?"*

"I missed it..."

*"-I'll do my best to make sure it doesn't
happen in the future"*

"(nods in approval) I feel that..."







Name (Full): ANGEL GRACE
HILAS CHERMAN

Age: 23

Ethnicity: MULTI-RACIAL

Pronouns: THEY/
THEM

Did you find Technocene's responses helpful in navigating the situation presented in the scenario? Please explain.

There isn't enough micro-expression to fully understand how my partner was feeling. There's so many complex emotions happening in the scenario and I was confused how he felt.

Did the externalized emotion response change how you handled the scenario at hand? Please explain. I did appreciate an external push to communicate.

How did Technocene enhance or hinder the scenario and your engagement? It hindered some of the experience because it need more variants in with intlatation.

Did you feel obligated to respond when emotions were externalized? Please explain. Yes it felt easier to respond because there was no hiding how I felt.

How did it feel to be augmented and have your internalized state reflected outwardly? It felt one-sided and I felt more sides of myself misrepresented.

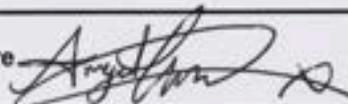
Was Technocene able to understand your own internal state? I was internally conflicted and I feel like it did something but couldn't fully comprehend my emotions.

Did the Technocene's suggestions align with your expectations and needs during the scenario? Why or why not? It did align with my expectations because it was the assumption of the people controlling my reactions that was shown.

Did you feel an increased emotional connection with your partner while wearing Technocene? Please elaborate. I did feel more connected to him but it wasn't because of the exaggerated emotional reactions but know we had similar feelings.

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Date 04/19/2024

Name (Full): CASSIUS PICKENS RICH	Age: 22	Ethnicity: BLACK	Pronouns: HE/HIM
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Did you find Technocene's responses helpful in navigating the situation presented in the scenario? Please explain.

I FELT IT WAS HELPFUL AND EFFECTIVE TO SEE THE PHYSICAL REPRESENTATION OF OUR CONVERSATION'S RHYTHM.

Did the externalized emotion response change how you handled the scenario at hand? Please explain.

~~IT~~ ~~WAS~~ I GUESS IT HELPED ME GET TO A MORE FORGIVING CONCLUSION DUE TO THE FACT THAT I COULD SEE MY PARTNER'S EMOTIONS SO VIBRANTLY

How did Technocene enhance or hinder the scenario and your engagement?

Did you feel obligated to respond when emotions were externalized? Please explain.

How did it feel to be augmented and have your internalized state reflected outwardly?

IT MADE IT HARD TO SEE, ~~WHICH~~ WHICH CAN BE BECAUSE I DON'T LIKE FEELING SEEN WHEN I'M EMOTIONALLY VULNERABLE, SO HAVING MY FACE BE HIDDEN MORE WHEN I FEEL STRONG EMOTIONS WAS HELPFUL.

Was Technocene able to understand your own internal state?

YEAH, I THINK SO

Did the Technocene's suggestions align with your expectations and needs during the scenario? Why or why not?

I HAD NO IDEA WHAT I WAS GETTING INTO SO I HAD NO EXPECTATIONS

Did you feel an increased emotional connection with your partner while wearing Technocene? Please elaborate.

YES, I ~~WAS~~ ENJOYED ~~SEEING~~ SEEING MY PARTNER OPEN UP LIKE THAT

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“I enjoyed seeing my partner open up like that”

“I appreciated the external push to communicate”

“helpful and effective to see the physical representation of our conversations rhythm”

“easier to respond because there was no hiding how I felt”

“it made it hard to see, which can help because I don’t like feeling seen when I am emotionally vulnerable”

“there isn’t enough micro-expression”

“I needed more variation”

“helped to get to a conclusion - I could see my partners emotions visibly”

“to know we had similar feelings”

Angel and Cassius, a young couple, engaged in a challenging conversation navigating miscommunications within their relationship. Relationships are delicate, with each person having a stake in their union, thereby making this scenario difficult to manage. The dialogue began with Angel, expressing their frustration and sharing why they were upset. Cassius listened intently, responding thoughtfully while considering Angel's emotions and words. Angel deemed that there were "so many complex emotions", making the scenario confusing to approach. However, the chimera made it "easier to respond," as its presence ensured "there was no hiding" their feelings, providing an external push for open communication. Cassius found chimera "helpful" and "effective" in articulating his conversation as the augmentation acted as a "physical representation" of their "conversation rhythm."

Seeing Angel and Cassius steer this scene was unique because they had a rapport with one another and a chosen mode of communication. I witnessed that chimera "helped get to a more forgiving conclusion" as they were able to see their partner's emotions "so visibly." An unexpected discovery was that the augmentation made it hard for them to see, which made them hone in on their partner. This sense of being hidden and anonymous made it easier for them to be "emotionally vulnerable."



Erica Chapman - 31
She/Her
Mixed



CAS

User #1 and #2 are best friends who both want the same dream internship. User #1 got the internship but didn't know how to break the news to User #2. User #2 ends up telling #1, to which they should be happy for the lost opportunity.

Kisaki Matsumoto - 30
She/Her
Asian

SE III

*nds and applied to the same
gets the internship and does
e news to User #2. User #1
h User #2 does not know if
their friend or grieve for their*



Erica

"I got the internship opportunity."

"Thank you! I am super excited about it"

"Thank you, that means a lot"

"I start in about 2 weeks."



"I appreciate your honesty. It was a tough situation, and I did not know how to bring it up to you initially."

"Well, when I start working there I will try my best to make connections - and see if I can connect you with someone there. I'll try what I can."



Kisaki



"Wow... congrats, I am happy for you..."

"I have not heard back from them yet... it's a bummer we can't work together, but congrats again. I am happy for you"

"So when do you start"

"I hope you learn a lot from them and have a great time."

"Is it okay to be honest?"



"I am sure that everything happens for a reason, and I did not get the internship. I am happy for you - even though I really wanted to get that internship..."

"I am happy for you. Don't be hard on yourself because I believe that everything has meaning. And if I didn't get the internship, that means I can- I will get something else."



"Thank you. and I am excited for you."

Name (Full): <i>Erica Chapman</i>	Age: <i>31</i>	Ethnicity: <i>2 Races</i>	Pronouns: <i>She/Her</i>
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Did you find Technocene's responses helpful in navigating the situation presented in the scenario? Please explain.

yes and no. I was a bit more stressed, anxious and worried because anything i say in response would also show.

Did the externalized emotion response change how you handled the scenario at hand? Please explain.

yes, it made me think more, respond slowly because I did not want to add more distress or ~~to~~ anxiety

How did Technocene enhance or hinder the scenario and your engagement?

added more empathy - external empathy if thats a word

Did you feel obligated to respond when emotions were externalized? Please explain.

yes and no. I felt more ~~to~~ enticed by the movement of the piece, than what it signified. However, seeing the distress, or emotions made me want to respond more

How did it feel to be augmented and have your internalized state reflected outwardly?

Exposing, but not in a negative way. I feel in the future it can be used to level the plainfield when talking to others, - better, honest communication

Was Technocene able to understand your own internal state?

~~yes~~ yes, but not to its fullest.

Did the Technocene's suggestions align with your expectations and needs during the scenario? Why or why not?

on average yes. However, I am a very anxious person, I'm a high functioning panic attack individual, so I believe my technocene would be fluctuating at a high rate - higher than what was demonstrated

Did you feel an increased emotional connection with your partner while wearing Technocene? Please elaborate.

It made me think more about my response. Being aware of the other persons emotions made me curtail my language

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Sign Here

Erica Chapman

Date

Name (Full): Kizaki Matsu MOTO	Age: 30	Ethnicity: Asian	Pronouns: she/her
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Did you find Technocene's responses helpful in navigating the situation presented in the scenario? Please explain.
 Since I'm not used to use Technocene, I didn't pay enough attention to my partner's Technocene. So it didn't effect my communication.

Did the externalized emotion response change how you handled the scenario at hand? Please explain.
 I didn't have any emotion to hide, so no.

How did Technocene enhance or hinder the scenario and your engagement?
 It didn't enhance or hinder the scenario.

Did you feel obligated to respond when emotions were externalized? Please explain.
 No. I was genuinely happy for my partner and had no emotion to hide.

How did it feel to be augmented and have your internalized state reflected outwardly?
 I wasn't comfortable with that. Being able to speak honestly is important, but for me, choosing what to say and do while being considerate of how the other person feels is also an important element of communication, so I found it uncomfortable when each other's emotions were expressed outwardly.

Was Technocene able to understand your own internal state?
 No

Did the Technocene's suggestions align with your expectations and needs during the scenario? Why or why not?
 Sorry, I'm not sure what this question means.

Did you feel an increased emotional connection with your partner while wearing Technocene? Please elaborate.
 I feel a special emotional connection with someone when we communicate without words or something quantitative. Using Technocene was the opposite concept from this, so I didn't feel an increased emotional connection.

Consent to Participate in Research	Sign Here Kizaki Matsuno	Date 4/24
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**“it made me think more,
(and) respond slowly”**

**“added more empathy -
external empathy”**

**“(it encourages) better,
honest communication”**

**“I felt more enticed by the
movement of the piece -
(it) made me want to
respond more”**

**“Being aware of the other
person’s emotions made
me curtail my language”**

**“choosing what to say
and being considerate to
how the other person feels
is also an important part
of communication”**

**“(it felt) exposing, but not
in a negative way”
“I feel in the future it can
be used to level the
playing field when talking
to others”**

**“it made me think more
about my response.”**

Erica and Kisasi, two close friends, navigate a scenario of personal friendship and professional goals colliding. Erica and Kisasi are in the same field of study and compete for the same jobs while trying to maintain their friendships. This scenario is challenging, as Erica did not know how to bring up the news to her friend, and Kisasi did not know if she should be happy for her friend or sad about her lost opportunity.

The dialogue began with Erica breaking the news, to which Kisasi responded that she was happy for her. Erica noticed chimera reacting differently than what was said, causing her to "think more, respond slowly" to not add "distress or anxiety." It caught me by surprise when Kisasi said "Is it okay to be honest?" - this marked a shift in the conversation, as both parties realized the need to be transparent due to the dissonance caused by actions not matching emotions. On seeing and hearing Kisasi, Erica responded as she felt "enticed" by "seeing the distress or emotions."

The friends were able to come to a resolution quite quickly as chimera made them think about their response, and made them "aware of the other person's emotions" causing them to "curtail" their language



Siya Katyal - 22
She/Her
South Asian



CAS

*User #1 is feeling insecure
compared to unrealistic beauty standards
the media. Their friend, User #2,
struggles and possibly relates.*

Mridvika Shah - 21
She/Her
South Asia

SEN

*... about their body image,
... beauty standards portrayed in
... er #2, is hearing about their
... es.*



Name (Full): SIMA KATYAL

Age: 22

Ethnicity: INDIAN

Pronouns: SHE/HER

Did you find Technocene's responses helpful in navigating the situation presented in the scenario? Please explain.

It was helpful but its hard to convey what emotions are being externalized.

Did the externalized emotion response change how you handled the scenario at hand? Please explain.

We weren't used to having this external response, ~~it~~ so it definitely had some impact on how we handled the scenario at hand.

How did Technocene enhance or hinder the scenario and your engagement?

I think the conversation was less productive but more interesting, since emotions were externalized. ~~Also, we~~ it was less productive since we weren't used to Technocene.

Did you feel obligated to respond when emotions were externalized? Please explain.

Yes, it gets harder to hide your emotions when they are externalized, so I felt more obligated to respond.

How did it feel to be augmented and have your internalized state reflected outwardly?

It makes a person more vulnerable.

Was Technocene able to understand your own internal state?

Yes, to a certain extent, since we were talking about our emotions about the prompt very openly.

Did the Technocene's suggestions align with your expectations and needs during the scenario? Why or why not?

Did you feel an increased emotional connection with your partner while wearing Technocene? Please elaborate.

No, I didn't. It made the conversation a little more interesting but a little less engaging.

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Sign Here



Date 4/20/24

Name (Full): MRIDVIKA SHAH

Age: 21

Ethnicity: ASIAN

Pronouns: SHE/HER

Did you find Technocene's responses helpful in navigating the situation presented in the scenario? Please explain.

It was helpful, but it was difficult to understand which emotion was being conveyed.

Did the externalized emotion response change how you handled the scenario at hand? Please explain.

A little bit. It was helpful because there was some sort of signal that the other person was feeling a certain emotion.

How did Technocene enhance or hinder the scenario and your engagement?

It did not because I'm already open with the person I was conversing with.

Did you feel obligated to respond when emotions were externalized? Please explain.

Maybe.

How did it feel to be augmented and have your internalized state reflected outwardly?

A bit vulnerable. But I was comforting to know that the emotions I was experiencing ^{were} not ~~shown~~ visualized in an obvious manner.

Was Technocene able to understand your own internal state?

Maybe. Even I don't understand my internal state.

Did the Technocene's suggestions align with your expectations and needs during the scenario? Why or why not?

Not really.

Did you feel an increased emotional connection with your partner while wearing Technocene? Please elaborate.

I already feel very close to my partner.

Consent to Participate in Research

✓

Sign Here

Mridika

Date 4/20/24.





GROWTH

concluding this chapter of technocene

This past year I have enveloped myself in the world I was building, technocene. It started with trying to create a superpower for human beings, by expanding their ability to sense. I honed in on our greatest tool, vulnerability and communication. I pushed something, often veiled, to the forefront as a means to unlock community and connection among people.

Through this journey, I analyzed how chimera catalyzed interpersonal interactions. Its implementation revealed how people responded to specific scenarios in a one-on-one context. People expressed a sense of comfort and reassurance when augmented, as it acted as an icebreaker, accelerating conversations and resolutions by offering outward indicators of their emotional state. Unexpectedly, I discovered that chimera's reactions, particularly its inflation and ballooning, were humorous to some individuals, thereby diffusing tension within the context. By focusing attention on the person with whom they were interacting, similar to a horse with blinders, chimera facilitated mutual understanding and effective communication within the space it occupied. Chimera's form affected individuals as well, with some feeling a sense of hiddenness or anonymity that encouraged greater transparency in their conversations and interactions. In essence, the exploration of technocene and the embodiment of chimera have revealed the power of vulnerability and communication in fostering meaningful connections among individuals.



The exploration of technocene as an evolving project unfolds in four distinct phases: material, theory, technology, and evolution.

Central to this exploration is the embodiment of the artifact, termed the chimera, within its soft robotic shell. The materiality was fundamental in its functioning, as it needed the ability to rapidly inflate and subsequently deflate. The rubber silicon served as a canvas upon which the biomorphic aesthetic and kinetic movements were brought to life. I would like to push the material further and delve into material sciences. I am considering the addition of heat-sensitive pigments, or photo-reactive coloring to the mixture. I plan to analyze the impact color has on the user's interaction with chimera, observing how the color shifts as it inflates, due to the change in the material thickness. This layer would enrich chimera's expressive language within the technocene framework. Beyond aesthetic changes to the material, I would like to explore the thickness and stretch of the material, creating something thinner, closer to the body and completely transparent. The pursuit of thinner, transparent materials seeks to blur the boundaries between the wearer and the worn, transforming the chimera into a seamless, responsive extension of the body so that it is undetectable on the body until it starts to react.

Technocene goes beyond just the artifact and paints an avant-garde landscape. Within this space, it deals with human beings and the bonds among them, not existing in a vacuum but rather functioning as a social technology, so scaling the project to encompass a broader user base would be the next step. I am interested in this project as it serves as the point of beginning with many directions to grow. One of the moments of growth will come from larger scale social testing, and user feedback. The more data collected, the more responsive the project becomes, allowing for the mapping of new emotions, gestures and possibly adaptations to the ethnography of the context.

Technocene functions through simple sensors, using emotion, brain activity, and muscle movement as the input and triggering the soft robotic entity as the output. Technology is rapidly developing and I would be enthralled with the possibility of imbedding the circuitry within the material of chimera. Creating "smart" inflatables, which have programmable polymers, ushering in an experience that feels like a living body. Allowing for the evolution from an artifact into a sentient entity, capable of deciphering and responding to the subtle nuances of human emotion - blurring the lines between the organic and the synthetic.

Ultimately, the chimera embodies a living organ - a muscle to be nurtured, grown, healed, and evolved over time. I imagine that it expands and spreads to other parts of the body. Making our whole body evocative vessels, turning emotion and internalized feeling inside out - becoming a conduit for profound human expression within the burgeoning landscape of technocene.

BIBLIOGRAPHY

Baudelaire, C. (n.d.). To Each His Own Chimera (pp. 113–114). poem.

Berger, J. (2012). Ways of Seeing: Based on the BBC television series with John Berger. British Broadcasting Corp.

Bradbury, R. (2010). Fahrenheit 451. Gyldendal.

Braidotti, R. (2013). The Posthuman. Polity Press.

Dist. National Cinema Service. (1958). Mon Oncle. (my uncle).

Dr Jenny Tillotson, e-Scent

Eagleman, A. we create new senses for humans? (2015). TedX. Retrieved November 30, 2023, from <https://youtu.be/4c1IqFXHvqI?si=HxOR7v7HLx6hGr4e>.

Emezi, A. (2019). Freshwater. Faber & Faber.

Ginsberg, A. D., Calvert, J., Schyfter, P., Elfick, A., & Endy, D. (2017). Synthetic Aesthetics: Investigating Synthetic Biology's Designs on Nature. The MIT Press.

Haines, A. | Designing the human body | TEDxMaastricht. YouTube. Retrieved October 27, 2023, from <https://www.youtube.com/watch?v=L6TohsCGdl0>.

Haldenwang A., Couto Rosado L. and Zhang T (2012)

Liu, A.: Smelfies, and other experiments in synthetic biology | TED Talk (2016). Retrieved December 4, 2023, from https://www.ted.com/talks/ani_liu_smelfies_and_other_experiments_in_synthetic_biology?utm_campaign=tedsread&utm_medium=referral&utm_source=tedcomshare.
Liu, A. "Small Inconveniences" (2019), "Woman Pains" (2019)

McCrossen, Y. S. and C., Bennett, K. and R., Hoffman, E. A., Glezerman, T., Mlynarski, S., Stratford, J. J., Wille, J., Cioffi, R. H. + L., Stardust, L., Larkin, D., O'Day, L. S. & A., Sansoucie, L. S. & K., Herskovits, S., Stardust, L., Sollée, K. J., Staff, Weiner, S., Feinstein, L., Jodi Wille, director of "We A. N. A. and "The S. F., ... Niemi, A. (n.d.). Agi Haines: Re-designing the human race. The Front. <https://thefront.tv/read/agi-haines-interview/>

McRae, L. : How can technology transform the human body? | TED Talk 2012).
Retrieved December 4, 2023, from
[https://www.ted.com/talks/lucy_mcræe_how_can_technology_transform_the_human_body?](https://www.ted.com/talks/lucy_mcræe_how_can_technology_transform_the_human_body?utm_campaign=tedspread&utm_medium=referral&utm_source=tedcomshare)
utm_campaign=tedspread&utm_medium=referral&utm_source=tedcomshare

Nowak, A. (2018). Empathy will save humanity: Anita Nowak at tedxuwct.
Retrieved from
[https://www.ted.com/talks/anita_nowak_empathy_will_save_humanity_anita_nowak_at_tedxuwct?](https://www.ted.com/talks/anita_nowak_empathy_will_save_humanity_anita_nowak_at_tedxuwct?utm_campaign=tedspread&utm_medium=referral&utm_source=tedcomshare)
utm_campaign=tedspread&utm_medium=referral&utm_source=tedcomshare

Rajcevic A. "ANIMAL : The Other Side of Evolution" (2012)

Reed, K. (2021). Biomimetic Wearable Computers. kate reed.
<https://www.biomimetic.io/>

Schwartzman, M. (2018). See yourself sensing: Redefining human perception.
Black Dog Pub.

Schwartzman, M. (2018). See yourself X: Human futures expanded. Black Dog
Press.

SZA featuring Phoebe Bridgers. (2021). Ghost In A Machine [MP3]. SOS. Bisel,
Lang, Cohn, Ethan Gruska, Tony Berg.

The Truman Show. (1998). [DVD]. Paramount.

Wachowski, L., Wachowski, L., Wachowski, L., Wachowski, L., Silver, J., Davis,
D., Pope, B., Paterson, O., Staenberg, Z., & Ping, Y. W. (1999). The Matrix.
Warner Brothers.

Zaki, J. (2017). We're experiencing an empathy shortage, but we can fix it
together. Jamil Zaki: We're experiencing an empathy shortage, but we can fix it
together | TED Talk.
[https://www.ted.com/talks/jamil_zaki_we_re_experiencing_an_empathy_shortage_but_we_can_fix_it_together?](https://www.ted.com/talks/jamil_zaki_we_re_experiencing_an_empathy_shortage_but_we_can_fix_it_together?utm_campaign=tedspread&utm_medium=referral&utm_source=tedcomshare)
utm_campaign=tedspread&utm_medium=referral&utm_source=tedcomshare

Haldenwang A., Couto Rosado L. and Zhang T (2012) "Telepathy 2012-2112"

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technocene

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Vir Joseph Naidu, 2024

Approved by Master's Examination Committee:

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Project Designer, MALL

Fran Slutsky, Critic
Professor, Brown University





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exit

TECHNOCENE



*“good morning,
and in case I don’t see you,
good afternoon, good evening,
and good night.”*

