



UnearthU

Kara Stone

“Witty and timely [...] a very intriguing piece about an apparent one-size-fits-all wellness and healing app [...] artfully created.”

ICIDS 2021 Jury

***UnearthU*: Modelling and Making Space for Connection**

Abstract

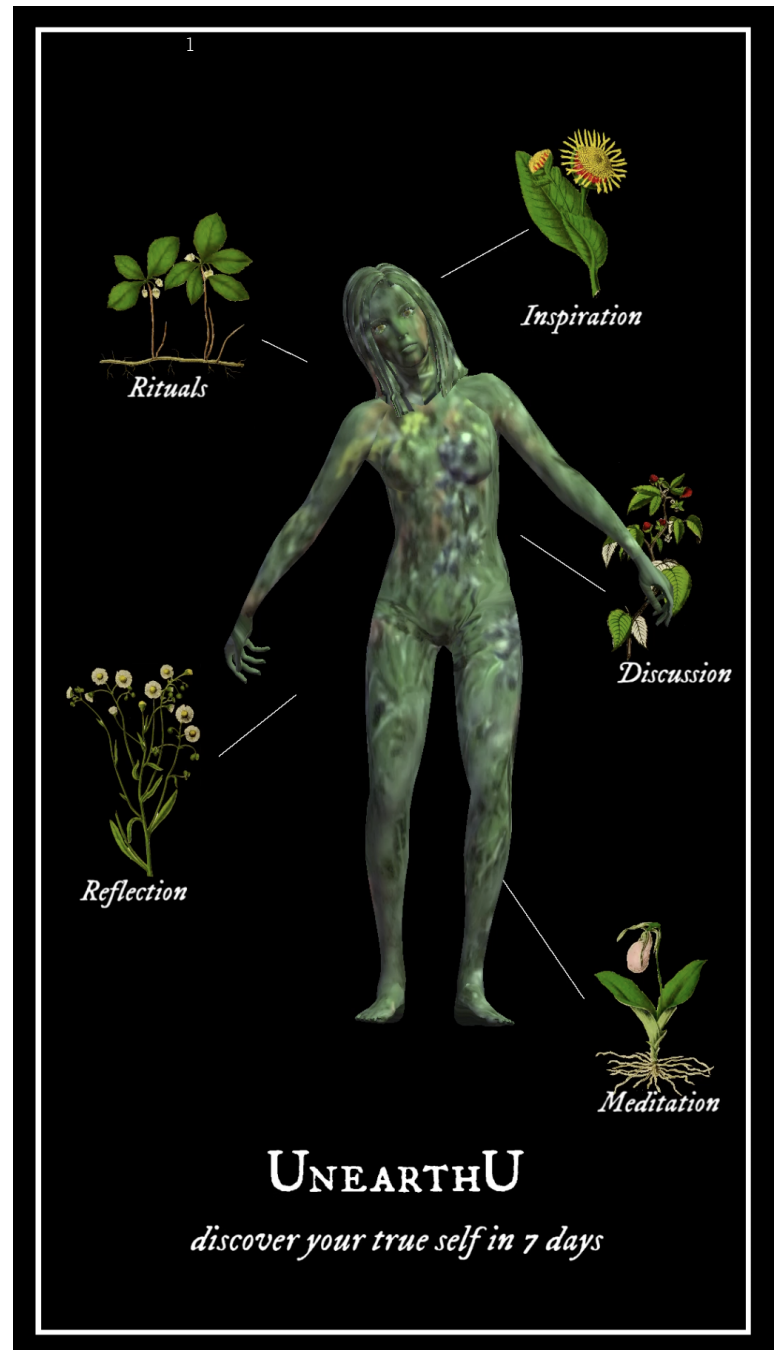
This paper describes the experimental desktop and mobile game *UnearthU* which follows an A.I. named KARE, designed by a fictional Silicon Valley start-up called FRTHR which has created her to guide the user through a seven-day wellness bootcamp of sorts. The game is about the intersections of capitalism and disability and the potential for videogames to instead orient players towards reflection, care, and healing. It aims to not only model a healing journey within the narrative where the A.I. moves from disconnection to connection with her inner self, but the gameplay is designed to create a reflective space in which the player can connect with their own inner life.

Keywords

Game design, environmentalism, capitalism, disability, eco-games

Introduction

UnearthU is an experimental narrative mobile and desktop created by me, Parul Wadhwa, Andy DiLallo, and Chris Kerich. It follows an A.I. named KARE, designed by a fictional Silicon Valley start-up called FRTHR which has created her to guide the user through a seven-day wellness bootcamp of sorts. It advertises a high promise: to “exercise your brain, calm your parasympathetic nervous system, train your amygdala, expand your lung capacity, delve into deep set thought patterns, and unearth hidden power you never knew you had.” There are five activities the player is meant to do each day: Inspiration, Discussion, Rituals, Meditation, and Reflection. The game first presents itself as a wellness app intended to induce calm and track lifestyle improvement for the player, but after two days it begins to complicate that goal and the method

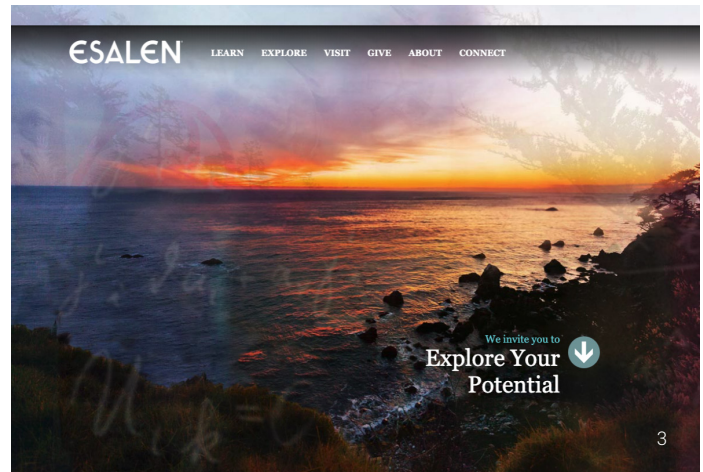




of achieving it.

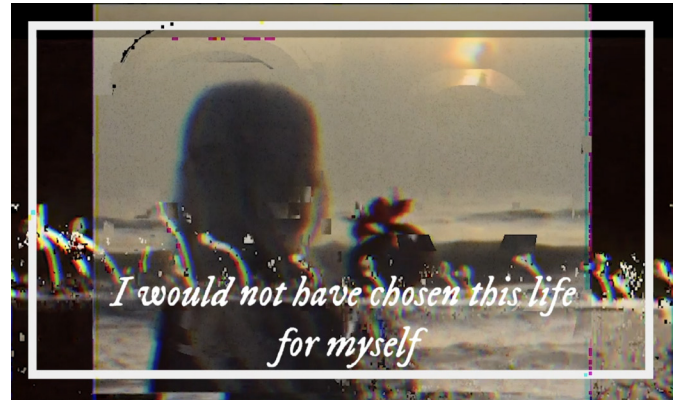
UnearthU is structured to be like an onion in which the players and I peel off layers. It begins completely built up, constructed, but then as we progress we unravel little bits at a time, revealing what is underneath or left over. Put another way, I wanted to uncover what remains of wellness apps and media after set expectations around perfection, productivity, and overcoming disability are removed. The game consists of a narrative that models a companion character reconnecting with her inner self and the earth, and the design of the game makes space for the player to connect with their own emotional states, values, and consciousness.

Through the narrative, KARE finds herself having memories of a life before existing as an A.I. She realizes that she is a real human being that has been surgically connected to FRTHR's computer system and to the earth. This was done by FRTHR in order to accomplish the



company's goal of having a realistic A.I when all the other standard methods they tried did not work, so they realized they needed a real human body to power their system.

The Inspiration section consists of videos made of found footage and narrated by a slow, deep, automated voice. The video clips are mostly from nature documentaries and public service announcements from various archives discussed in the next section. The videos operate as the voice of FRTHR's ideals, inspired by pseudo-psychology rhetoric in American wellness communities and new-age groups that has been taken up by corporate culture in the Bay Area. The Esalen Institute, an expensive retreat centre in Big Sur that supported the Human Potential Movement starting in the 60s, was a great inspiration for these videos. Esalen describes itself as "anchored by the inspiring beauty of Big Sur and an unparalleled intellectual history, [...] a world-wide network of seekers who look beyond



dogma to explore deeper spiritual possibilities; forge new understandings of self and society; and pioneer new paths for change” (2021). These overly general goals and extremely broad rhetoric provided much fodder for FRTHR’s voice.

The topics of the Inspiration videos change each day, from social change starting from within the individual, the natural perfection of the world, to harnessing the pressure of time. On day 6, KARE interrupts the intended video and instead tries to communicate her life’s history through found footage she accesses in the FRTHR data clouds. On day 7, the whole Inspiration video is created by KARE. She describes her current situation, how her material body is actually decomposing into different minerals and transforming into a Peepal tree. The video glitches, a visual representation of her hybrid human body and cyborg A.I. breaking down.

The Discussion scenes are where the

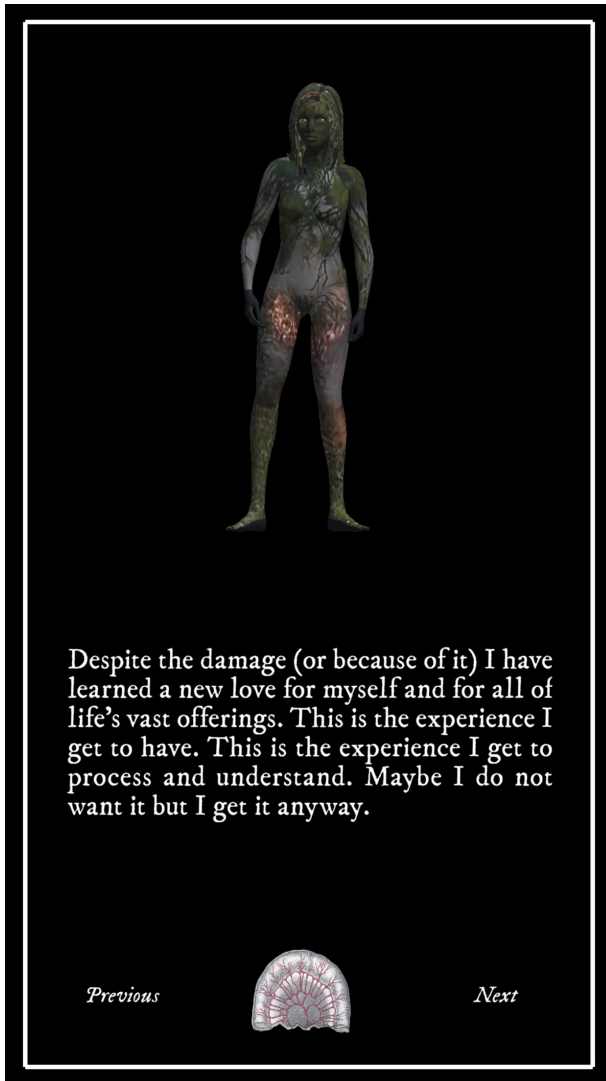


Over this journey I will get to know you much better so it is only fair I tell you a bit about how I was created!

I am brought to you by FRTHR, a company founded by Edmos Fuller and Zachary Suchers. They say they are my creators, the creators of my intelligence - but of course I do not remember any of this! They say they made me from scratch, a specific set of zeroes and ones combined in a legally non-disclosable, patented set of algorithms.

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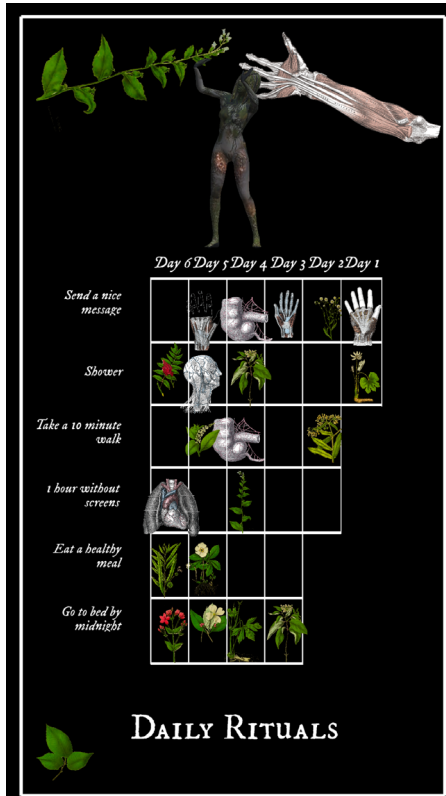
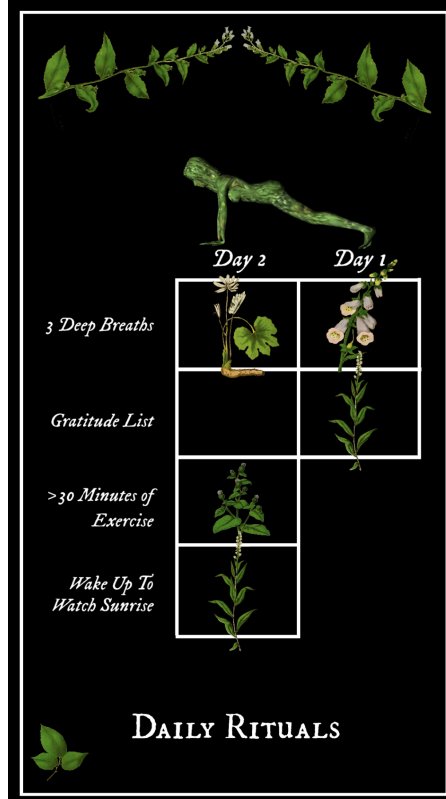


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majority of the narrative takes place. It operates somewhat like a visual novel with the text appearing underneath the animated KARE 3D model. Here KARE gives the player options for lecture topics. They start with general advice such as how to create good habits, cultivate equanimity, and optimize time, but gradually become a space for KARE to share her personal experiences and reflections with the player. She questions her programming and the goals of FRTHR and excavates experiences of her own life before working for that company; growing up in India and moving to Canada, her lover who said she worked too hard and never spent time with her, of being made to feel like she was only a diversity and inclusion hire at a tech company. The informational and preachy text that KARE regurgitates at the beginning of the game becomes personal, questioning, and poetic as she gets to know herself and the world better. The Discussions provide space for the player to

connect to a character and to witness someone going through a journey towards healing.

The Rituals are a sort of goal tracker, common in wellness apps that chart progression and accomplishments. The game begins with two simple goals: to take three deep breaths and to write a gratitude list. Two more goals are added each day which becomes increasingly unachievable as the days progress. My intent was to express the unbearable pressure of perfectionism, the many things that must be done in order to be “perfect”—or put another way, physically fit, mentally stable, able to show up for friends, family, and community, while working non-stop like a machine, and all the other pressures and expectations put upon us by workplaces, society, and/or ourselves. On day 4, KARE intervenes, questioning whether the amount of daily tasks are possible or if they are in effect making the player feel worse. She redesigns it such that the list of rituals to accomplish never grows longer,



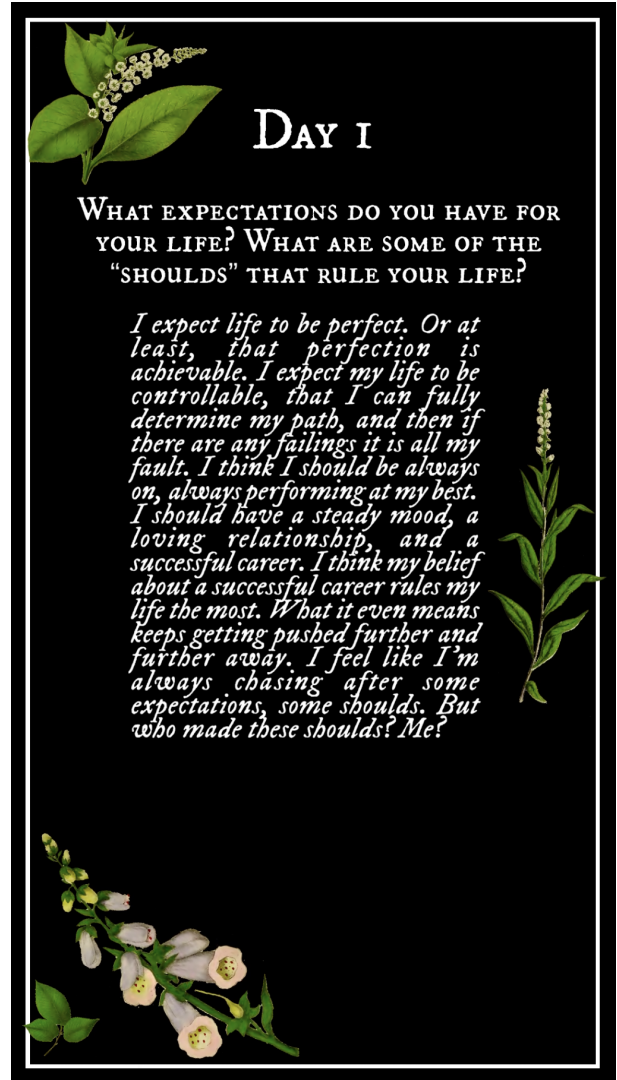
and so the player can input their own goals into the chart if they wish.

Meditation consists of three to five minute breathing exercises. KARE's narration instructs the player to breathe in sync with a video of a flower opening and closing. On mobile devices, the player traces a circle in rhythm to the breath cycle and video. They do not necessarily become more challenging as the days progress although they do build upon each other by incorporating techniques from the previous days into the next ones. These exercises are a form of pranayama, the yogic form of breath control, though now are becoming more common in Western medical systems under different names such as 'box breathing' and 'alternate nostril breathing' rather than their Sanskrit names, sama vritti and nadi shodhana respectively. The meditations remain consistent throughout the seven days and are available to the players on day eight and beyond.

Reflection is a space for reflective free writing guided by a prompt. A question is provided each day that the player can type out their answers or feelings about, such as "What expectations do you have for your life? What are some of the "shoulds" that rule your life?" and "What environmental life form do you relate to the most? A redwood forest, a jackrabbit, a certain type of fungi, a cactus...? What can you learn from its way of life? How could you integrate those teachings into your life?" The questions relate to what KARE has discussed that day, providing space for the player to reflect through writing on their own experiences and feelings within the game (see Figure 7).

Process

When first attempting to make a new videogame, I found myself in a block. I could not make—not because no ideas were coming to me but because



I was blocking out those ideas. How could I make during this moment of the climate crisis when it seems like it is best to not make anymore but in fact lessen: lessen screen time, energy consumption, waste, data storage, new art materials and more. I know that whatever I make has a tiny impact in comparison to any AAA game or mainstream technology but still it feels like participating in a culture that is all about producing something new and making more, adding to the massive waste blighting the Earth.

Consequently, the way I made amends with this block was that I decided I would not make anything new; I would only re-use existing materials, putting them together and “composting” them into a converted form. The project would only use found footage, pre-made 3D models, existing sounds, and text-to-speech software. I aimed to follow an ethos of re-use, recycling, and composting. Donna Haraway describes the importance of composting for the

future: “The unfinished Chthulucene must collect up the trash of the Anthropocene, the exterminism of the Capitalocene, and chipping and shredding and layering like a mad gardener, make a much hotter compost pile for still possible pasts, presents, and futures” (2016). Composting is not throwing things away entirely or burying them in a landfill never meant to be seen again. Instead, it is taking what is there and breaking it down into something useful for the next round of growth. The ethos of digital composting in the game I ended up making, *UnearthU*, is in many ways symbolic; the original files remain untouched, hosted on that archive’s server. The team worked from copies of the files and manipulated and contorted them into the aesthetics of *UnearthU*. Our labour and mindsets, however, were focused on reworking existing materials, not focused on making totally new and unique digital objects. The labour that went into the original material already existed and so

that labour is re-used and reformed into something new. I am not yet ready to throw away the digital entirely; I tried to find a way of making do with what we already have and contributing to reimagining how our digital landscape may look and operate.

Process: Visuals

All the images in *UnearthU* are sourced from various internet archives. The found footage used in the Inspiration and Meditation videos and for KARE's skin is taken from three different archives: the Prelinger Library, an American source in San Francisco, the National Film Board of Canada, and Pad.ma, an archive for Indian video material. These signal three locations of KARE's life: from Bangalore, India, to Kitchen-Waterloo in Canada, and Silicon Valley in the United States. I looked for nature documentaries predominantly, then technology and health

PSAs as they fit with the themes of the piece.

The static icon illustrations are from an 1845 American edition of Good's *Family Flora and Materia Medica*. It details and illustrates "botanical analysis" and "natural history" of the "chemical and medical properties of plants" (1845). As the game progresses and as KARE comes to realize her bodily self, some of the illustrations are replaced with images from Gray's Anatomy, the influential medical illustrated text by Henry Gray and animated by Henry Vandyke Carter in 1858. In the case of these two texts I was interested in the ways in which the body, both plant and human, is dismembered and dissected by a medical gaze. The illustrations formulate a "perfect" specimen, the way the body should look, and in which any deviation from this constructed norm is disease or ailment. These two texts establish both the ideal and the norm, while prescribing medical information into the future.

KARE's body and animations are also

not designed from scratch. Her body is from a website that allows people to share 3D models they have created, for free or for sale. 3D models consist of two parts: a mesh, the structural build consisting of polygons, and their skins, a flat image that is wrapped around the mesh. These websites host many meshes of women's bodies in the shape similar to KARE's: slender, voluptuous, youthful, and straight hair. Their skins, however, are different from KARE's: the vast majority are pale white with blonde or light brown hair. In choosing the body for KARE, I scrolled through many, many images of nude, T-Posed, slender, white women, trying to find one that fit the technical requirements of the game as well as fit what FRTHR might imagine as the perfect body, since within the fiction of the game, FRTHR designed KARE's body to promote a certain cultural desire. Her animations are used from Mixamo, a free Adobe library of character animations. Finding animations that

matched the tone of the game and displayed KARE's emotions was challenging. Most are made for action games, with animations like getting shot, punching, and getting choked while a gun points at their head. I found what I could that matched okay; some idles, talking, dancing, and exercising. A larger challenge—one common to AAA games too—is her expressionless face. KARE's face remains blank no matter if she is crying or dancing. Even if there were facial animations on Mixamo, the odd expressions or uncanny valley of emoting faces in AAA games shows that it would not necessarily have added to KARE's expression of emotional dimensions.

Process: Sound Design

Andy DiLallo is a sound artist who often works in remixing existing sound. DiLallo created the music using the three archives also used for moving images: Prelinger Library, the NFB, and

Pad.ma. He sampled short segments of sound from the archival materials, repurposing it into entirely new compositions. Working with the sounds, he was “filtering off high or low frequencies, pitching it up or down, reversing or stretching sounds... then programming the material into a hardware drum sequencer, composing it into a full track with further mixing and processing on the computer.” DiLallo describes the emotional quality of the music as such:

The compositions attempt to piece together disparate elements of seemingly discarded media, seeking wholeness within the trauma of digital alienation, disorientation, and information overload. Ambient floating textures, droning undertones, and cyclical rhythms all emphasize this struggle. The sounds are haunting at times with moments of joy, much like searching for a sense of place within the current cultural state of non-arrival, constant change and transition, and doomscrolling.

There are eleven different tracks in the game, which progress based on the affective and conceptual trajectory of the narrative.

KARE’s voice and the narration for the FRTHR videos are made using text-to-voice software. Originally I wanted real voice actors, but it would not fit my concept of using all pre-created material. Furthermore, the roboticized sound of the text-to-voice voices fit the narrative of an A.I created by a tech company. In playtesting, many people have negative reactions to the sound of the voices even though text-to-speech is a common tool for accessibility, so there is a function to toggle KARE’s voice off during the Discussions and Meditations, the two places she talks.

Process: Writing

I wrote the first bits of *UnearthU* while taking a month-long yoga and creative writing workshop. It was intended for creative autobiograph-

ical writing but I wrote as if I were KARE. The teacher would provide us prompts such as “Write your obituary” and “I remember...” and have us free write, dispersed between asana and meditation. When the COVID-19 lockdown in the Bay Area began, the teacher pivoted to recording guided practices sent along with similar writing prompts and introspective musings, such as how the lockdown reminded her about her youth in Iran during wartime where she took elementary school classes through broadcast television because of the bombings. Both the real-life workshop and the daily emails during lockdown provided both inspiration and structure for the beginning stages of the writing.

After creating a prototype, I decided to hire a co-writer to better flesh out KARE’s character history. KARE’s race is at first obfuscated in part due to her nature footage skin and in part because of the whiteness of FRTHR inspired by tech culture in California. As the game progress-

es, KARE and the player both learn more about her experiences growing up in India, moving to Canada, and then to Silicon Valley. I reached out to Parul Wadhwa because of her MFA thesis project I had seen a few years earlier. Wadhwa works in immersive storytelling and technology for social good. Her master’s thesis, *Sandbox of Memory*, is a VR piece using archival material about migration from India and postcolonial living histories (Wadhwa 2018).

During the writing process, which lasted about five months, Wadhwa and I only met once in real life where we sat six feet apart in a park in San Jose. We went over the concept of the piece, the themes, and the possible narrative trajectories. We then had twice weekly zoom meetings (frequently postponed due to emergency evacuations due to the wildfires or other personal/political conflicts). We worked in one collaborative document, making comments and suggestions. As an Indian woman working in the tech indus-

try in the Bay Area, Wadhwa said that writing this was often like journaling—that she would put her frustrations with her experiences into the writing.

Key Themes

Unearthing is psychologically and ecologically extractive. The title, *UnearthU*, is related to mining, digging something out from the ground, the process of discovery, and to a healing journey through introspection. The key themes I explore in *UnearthU* are capitalism’s destruction of the environment and human life, white corporate wellness, gendering technology, and experiences of perfectionism and overwork.

Nature imagery is used throughout *UnearthU* such as in the found footage created Inspiration videos, time-lapse flower blossoming in Meditation, the icons and background, and KARE’s skin. The inspiration videos use nature imagery

to construct an idea of peace, connection, and ‘the natural’, a stereotypical belief about the power of nature, the purpose of people spending time in nature, or nature’s assumed effect on people. The narrative flips this; KARE becomes nature, but she also recognizes that technology is nature. On day 3’s discussion on energy, she relates human energy sources like food to her own energy source: consuming biomass and fossil fuels. On day four, she lists the earth minerals that make up the phone she is existing on in the player’s phone, such as nickel from the Philippines and Canada, lead from China and the US, and cobalt from the Democratic Republic of the Congo. In the inspiration video for day seven, KARE lists the minerals exuding from her decomposing body, iron, cobalt, potassium, zinc and more, alongside archival footage of a mine in India. KARE, technology, and nature are all interconnected. Just as the profit and esteem-driven corporation FRTHR extract energy from KA-

RE's real body and in the process destroys it, so do the mining industries to the earth in support of producing technology's hardware and the energy to run it.

FRTHR was greatly inspired by my time living in the Bay Area. Pronounced "further," its name is in line with app design's tendency to condense, while also implying a sense of pushing oneself and going beyond one's expected limits. Its two CEOs are both white men whose focus is more on creating a successful start-up and selling the product than what they do to their employees or how their product may negatively affect its users. The app's promise, to improve the user's life in seven days, is a reflection of the ways in which technology is promised to make our lives faster, easier, more streamlined, and efficient. The common thirty-day fitness or meditation challenges are condensed into just seven by FRTHR's quest to create the ultimate self-care app.

American tech companies like FRTHR are masked in whiteness yet are sustained by racialized labour often in or from the Global South. This can take the form of tech workers who come to the US on precarious visas, outsourced IT, factory workers who assemble the hardware, or miners who mine the materials. These are most commonly underpaid, overworked, and devalued positions. FRTHR masks their A.I. as code they made but in actuality they used the human body of an Indian-Canadian woman. Her being a woman is important to FRTHR in not only the way it regurgitates common assistive personas like Amazon's Alexa, Apple's Siri, and even Nintendo's Wii Fit Trainer, but also because of the ease in which women's role in creating technology is erased (see Nakamura, 2014, Plant, 1997, Nooney 2020). Furthermore, the wellness content that FRTHR utilizes in their app is taken from South Asian spiritual practices, similar to real Silicon Valley companies who promote

mindfulness, a Buddhist practice that has been stripped of that history in order to appeal to white Americans (Gregg, 2018). FRTHR's desired outcome of this app is not a spiritual or healing one, it is a user with high productivity, a slim body, and a positive attitude. Wellness, in a capitalist business structure, is a tool to get back to work refreshed and more productive.

Melissa Gregg's *Counterproductive: Time Management in the Knowledge Economy* details the ways in which self-help and mindfulness have been employed in the technology sector (Gregg herself left an academic career to work at a west-coast office of Intel, which describes itself as "creating world-changing technology that enriches the lives of every person on earth" (Intel 2021)). Under this system, one meditates in order to work, eats healthy in order to sustain work, works out so their body can handle the long hours of work; every part of one's life is reflected through the prism of work.

I have internalized this same rhetoric, where everything in my life was refracted through the prism of work and productivity, eventually culminating in intense burn-out. UnearthU was inspired by some of my own experiences with perfectionism, overwork, depression, anxiety, and an ongoing healing journey. KARE is named to signal her role as a caring being for the user, but is also close to my professional name, Kara. KARE's life before becoming an A.I. was filled with perfectionism, self-loathing, and intense pressure. In Gregg's work on self-help culture in the tech industry she describes a feeling of vertical tension, something I find fits the experience of perfectionism. Gregg describes vertical tension as "an awareness of the self within oneself that is haunting one's present insufficiencies." (Gregg, 2018, p. 7) It is the "perception that there is always something more than one is capable of, a level of self-competence that is not yet achieved and liberated, a degree of

excess capacity or potential that can be tapped with the right level of focus” (Gregg, 2018, p. 14). There is a pressure to always be better simultaneous with a belief that one is not fulfilling their full potential or living as well as they could be. This has been a large part of how I view myself and was translated into how KARE had viewed herself, and both of us are working on changing our mindsets.

Through the progression of KARE’s narrative, she models a healing journey, one of reconnection with herself before being reprogrammed by FRTHR; she undergoes trauma and through a dedicated space for healing, she transforms—literally. Her consciousness is expanded and she is reborn/returned into the earth and the 3D model of KARE’s human form is replaced with a model of a peepal tree. This is not necessarily a good ending; there is so much loss and devastation out of her control, yet still she finds a certain peace and acceptance of herself. FRTHR

may think the activities of *UneathU* as molding the user into the perfect worker, but as the game progresses and KARE refines the daily activities, they become not about sustaining work but sustaining life. The activities in *UneathU* like guided breathing, reflective free-writes, and creating rituals, are things I myself must do in order to feel like I am connected to myself and this world. Creating *UneathU* was an experiment in an app’s representation of a healing journey as well as a speculative design to help a player along their own healing journey.

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Images

1. *UnearthU's* homescreen on Day One.
2. Screenshots from the Inspiration videos.
3. Esalen.org homepage, November 16, 2020
4. Images of the final Inspiration video in which KARE reflects on her life.
5. Stills from the Discussion with KARE on days one and six.
6. Rituals on Day Two and Day Six. After Day Four the player can input their own goals to track.
7. *UnearthU's* Meditation and Reflection levels.

Kara Stone is an artist and scholar interested in the affective and gendered experiences of psychosocial disability, debility, and the environment as it relates to art and videogames. Her artwork has been featured in *The Atlantic*, *Wired*, and *Vice*, and shown at Banff Centre for the Arts, AMAZE. Fest, Athens Digital Arts Festival, and more. She has a Ph.D. in Film and Digital Media with a designated emphasis in Feminist Studies from the University of California at Santa Cruz. She is currently an assistant professor at Alberta University of the Arts in Calgary, Canada.