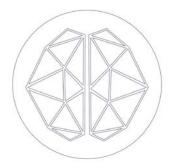
A Look Back: Memothy

Future memories



Responsive Mobile Environments 2017 Prof: Daragh Byrne Michael James Roisin Pearson Manuel Rodriguez Ladron de Guevara Carnegie Mellon University

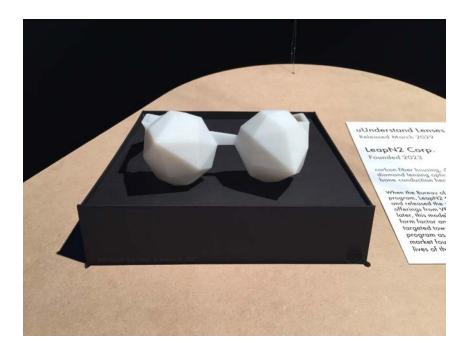
Memothy Design documentation

The importance of the design in speculation

Since the beginning of the idea of creating the Memothy set, we were convinced about the potential this set of devices could have. Deciding between lenses or goggles, pendant or wristband was critical to start designing the function of the project. We quickly committed to the pair goggles – pendant, as it is more plausible for a close future.

Goggles

The speculative design of the goggles hinges on the distance with the typical design of VR goggles. The design is based on the possibility of having independent lenses for each eye, inspired in chameleon's ocular structure, which reminds of a possible augmented vision. Technology wise, they are made by printed carbon fiber, dual OLED displays, diamond lensing options, 5G wireless chip, bone conduction headphones, and motion charger. As for the prototype, we specially wanted them white, as its neutrality matches perfectly with a future-based design. It is ABS plastic 3d printed.



Pendant

In this prototyping stage, the necklace has unisex features. Evoking almost the lack of its other half, this strategy is intended to require another half. It is a metaphor to print in the design of the object, the idea of being paired with someone else. The necklace has a hole that houses the camera lens, and another hole for the cord. This cord is intended to be interchangeable and customizable.

Technology wise, the necklace is composed by 8k image sensor, 16mm lens with fish-eye removed, 5G wireless chip, pseudo-binaural microphones, obstruction sensing, faint-signal heart rate sensor, touchless galvanic skin response sensor. Again, the white color is critical to be understood as a speculative design. It is fabricated by fused deposition of white resin.



Fixture

The design of the fixture is thought to house the three objects of the project (goggles, pendant and manual) and its respective labels. A smart design is achieved because of the simplicity of the overall setting. The wooden table, hung from the ceiling with three steel treads, is inclined towards the viewer, making the labels easier to read. The triangular shape of the table is intended as it matches with the triangular panellization of the geometry of the goggles and necklace. The logo is engraved in the central part of the table. Symmetry is avoided.

The black boxes highlight the white objects by contrast, each box made for the object they contain, having the name of the object engraved in the front part of the box.



Video

https://vimeo.com/217604217

The video displays the Memothy technology devices in a daily setting, between two unusually similar people. Through watching each other's struggle with isolation and loneliness they can empathize with one another. This showcases that despite being from different cultures and backgrounds the two individuals actually have a lot in common, provoking them to mediate deeper about other people's situations and challenges.

A Look Back: Memothy

Manuel Rodriguez Ladron de Guevara, Michael James, Roisin Elizabeth Pearson

In 2025, the Department of Homeland Security formed the Bureau of Compassion. The Bureau launched its first major program, Memothy, in 2027, giving citizens the opportunity to peer into another's life to build empathy with their contrasting experiences.

Citizens registered for the program online, or at a store, just like the one recreated here, and were assigned to an anonymous partner. The program included a Memothy Necklace, which uploaded a person's experiences for their partner to witness, and Memothy Goggles, which participants used to step into their partner's virtual reality. Participants were required to wear the Necklace at all times and spend at least 15 minutes in the Goggles a day. If participants followed the stipulations of the program for 99% of the year, they received a sizable tax credit.

The program was initially joined by lower-middle class citizens who enjoyed the financial incentive. Interest grew among lower-class citizens once the option to receive food stamps instead of a tax credit was added. The upper-middle class eventually enjoyed the program as an alternative to the recycled stories distributed on the once popular Netflix. The program flourished into what we now know in 2050 as the Brain Upload Deduction.





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LeapN2 Lenses 3S/Pendant 3C Getting Started Guide Published March 2029

LeapN2 Corp. Founded 2023

printed booklet

This user manual was distributed with the 2029 release of the uUnderstand Lenses 35 and iShare Pendant 3C. The me uchaerstand Lenses 35 and IShare Pendant 3C. The manual contains official language from the Bureau about activating Memothy registration and maintaining disciplined participation. This text was a key article of evidence in the notable 2030 case Campaign Against Invasive Behavioral Informatics v. Department of Homeland Security, in which Chief Justice Sessions ruled in favor of allowing Customs and Border Protection Officers to search these devices at the U.S. border.

uUnderstand Lenses 35 Released March 2029

LeapN2 Corp. Founded 2023

carbon fiber housing, dual OLED displays, diamond lensing options, 5G wireless chip, bone conduction headphones, motion-charger

When the Bureau of Compassion launched the Memothy program, LeapN2 Corp. capitalized on the opportunity and released the uUnderstand Lenses, broadening their offerings from VR to e² (empathy experiences). Two years later, this model was released, improving on the 25's form factor and voxel depth. This product line was targeted towards the high-end consumer who joined the program as a fashion statement. This segment of the market found satisfaction by peeking in on the peculiar lives of the less sophisticated.





iShare Pendant 3C Released March 2029

LeapN2 Corp. Founded 2023

8K image sensor, 16mm lens with fish-eye removed, 5G wireless chip, pseudo-binaural microphones, obstruction sensing, faint-signal heart rate sensor, touchless galvanic skin response sensor

This necklace was released at the same time as the accompanying 3S lenses and boasted cutting-edge wireless upload compression technology. It is able to determine a user's affective state through the triangulation of physiological indicators, enabling empathy benchmarking and coaching through the Memothy program. Its obstruction sensing capabilities nudge users to maintain their commitment to their partner. This model topped the charts for three solid months in Spring 2029.

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uUnderstand Lenses 3S

Released March 2029

LeapN2 Corp. Founded 2023

carbon fiber housing, dual OLED displays, diamond lensing options, 5G wireless chip, bone conduction headphones, motion-charger

When the Bureau of Compassion launched the Memothy program, LeapN2 Corp. capitalized on the opportunity and released the uUnderstand Lenses, broadening their offerings from VR to e² (empathy experiences). Two years later, this model was released, improving on the 2S's form factor and voxel depth. This product line was targeted towards the high-end consumer who joined the program as a fashion statement. This segment of the market found satisfaction by peeking in on the peculiar lives of the less sophisticated.

iShare Pendant 3C

Released March 2029

LeapN2 Corp. Founded 2023

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uUnderstand Lenses & iShare Pendant

User Manual

Version 3.9.2

Distributed by LeanN2 Corp.

This product is certified by the Bureau of Compassion for use with the Memothy Program.



Memothy Compliance

The accompanying devices are certified compliant with the standards set forth by the Memothy program for Memothy Goggles & the Memothy Necklace.

Approved 03/23/2029 by the Director of the Bureau for Compassion as sanctioned by the Secretary of Homeland Security.

Getting Started

- 1. Make sure you have registered for the Memothy program. Since you have received this package, you're probably already registered.
- 2. Put on your Memothy Goggles and they will automatically turn on.
- 3. Enter your social security number so they can identify you.
- 4. Put on your Memothy Necklace and it will automatically turn on. Because your Goggles are already on, they will automatically pair with the Necklace.
- 5. If your year of observation has not yet begun, you will be reminded of the start date. If it has started, your broadcast will begin after a five second countdown.

Note: Your Goggles will start beeping if you have failed to spend time observing your partner for a period longer than 24 hours.

Signing-Up for the Memothy Program

- 1. Navigate to www.memothy.gov.
- 2. Select "Register".
- 3. After filling out the form (select all appropriate identities), you will be given a start date and have the opportunity to order a Memothy Set. The Set takes about two weeks to arrive so order it fast!

Note: While a Memothy Set does require a one-time fee of \$50, this amount is largely subsidized and can be easily paid off through a lifetime of memothy. The Set comes with a lifetime guarantee so you will never have to pay for repairs or replacement. The focus is on understanding your partner.

How the Program Works

- 1. When you begin the program, you will know your start date and how to operate the Memothy Set.
- 2. Beginning on your start date, you will be required to observe your partner for 15 minutes every 24 hours. If you fall behind, this time will start to add up. To receive your Memothy Tax Credit at the end of the year, you must stay on track. If you fall more than 100 minutes behind, you will be put on probation. After a 150 minute deficit, you will be asked to take a break from the program. Keep in mind this will deprive your partner of the chance to learn more about you!
- 3. If you turn off your Memothy Necklace at any time or cover it during waking hours for an extended amount of time, your Goggles will start playing music. If this goes on for more than five minutes, you will have additional minutes added to your observation quota. After ten minutes of dead time, you will receive a call from a Memothy Support Agent to make sure everything is ok. After thirty minutes of inactivity, you will receive a visit from your local Memothy Crisis Support team.
- 4. After six months in the program, you will be sent the name and photograph of your partner. At this time you will also have the opportunity to speak with your partner. During the second six months of the program, you are required to have direct exchange with your partner at least four times. You may conduct this exchange through the Memothy portal on your computer or through your Goggles or through a certified method of communication (such as Facebook, WhatsApp, or WeChat).
- 5. At the twelve month mark, your understanding of and relationship with your partner will be evaluated by a Memothy Auditor. If you have reached Level 5 empathy, you will be assigned a new partner to get to know. If you are at Level 3 or Level 4, you will continue with the same partner for another six months. If you are at Level 2, you will be contacted by a Memothy Coach to help you learn techniques for empathy. If you are at Level 1, you will be invited to a one month empathy retreat.

How to Build Memothy with the Memothy Goggles

- 1. When you are ready to spend time getting to know your partner, put on the Goggles. By default, you will see a reel of the top moments your partner experienced since you last used the Goggles.
- 2. If you would like to view a livestream of their current activity, tap the "live" button.
- 3. If you would like to view a previous moment, you can use hand gestures to move through the timeline.
- 4. You may tap the "Listen" button on the Goggles to tell the system what moments you'd like to see. You can say things like "show me a happy memory" or "show me something difficult they've had to deal with".

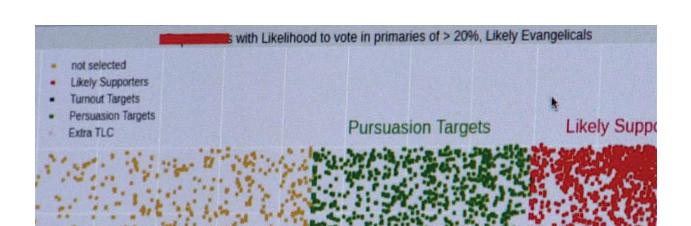
A Note on Non-Disclosure

By participating in the Memothy program and using the Set, you agree to keep everything you observe confidential. Any information from the person's life that is not public knowledge that becomes shared will directly link back to you. Remember, at the end of the day, it will be easy to know if you've breached this agreement.

Life Before Memothy Devices and Practices That Influenced the Program

Cambridge Analytica

This big data analaytics company was influential in Donald Trump's 2016 election campaign and the United Kingdom's Brexit. Using one's smartphone like a constant psychological questionnaire, they were able to fairly accurately predict a person's personality based on their Facebook likes.





Sesame Credit application

Scoring Trustworthiness

China had hoped to create a score to measure citizens' trustworthiness by 2020. The program failed due to disapproving public opinion. This plan was similar to the Communist Party's 2010 pilot of a program in which citizens lost points for running a red light, driving drunk, or paying a bribe.

Body Cameras

To prevent abuse of power many police forces adopted body cameras to be worn by their officers. Axon, a safety tech company releasde body cam models with livestreaming capabilities and cloud storage. They also speculated that the whole public would wear body cameras to record their daily lives and interactions.



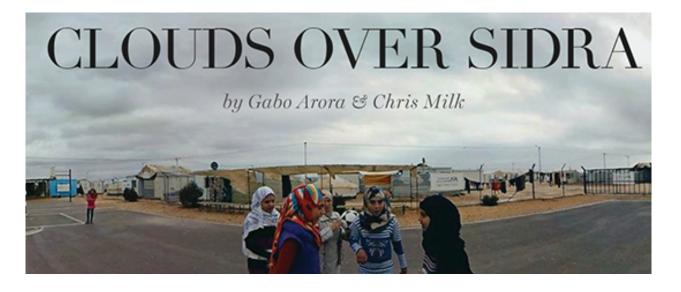
Cambridge Analytica visualization predicting primary outcome

Facebook Live

Beginning in January 2016, any Facebook user could self-broadcast their experiences to the public or their online community. Friends could react to moments as they were shared and the broadcaster was able to see how many people were watching at a time. This tool was used to broadcast political events and actions that were not broadcast by the mainstream media.



Facebook Live advertisement



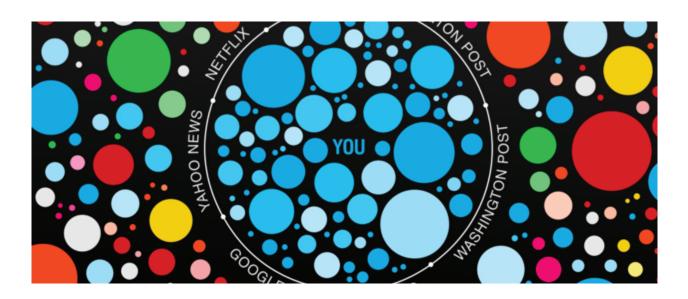
poster for a VR film created for the UN

VR Empathy

As virtual reality (VR) grew in accessibility and popularity from 2010 to 2020, it was largely touted as an "empathy machine", allowing users to experience another person's life. Journalists at the forefront of this movement captured 360 degree stories from places like Syrian refugee camps, giving viewers back at home a taste of these other lives. police officer wearing body cam

Filter Bubble

This term became common as people spent more and more of their time on social media. Platforms such as Facebook and Twitter were the main sources for news content at this time. Their algorithms populated their users' news feeds with content that was similar to the content already there. Over time, people became stuck in these "echo chambers" of homogenous views.



depiction of the filter bubble by Eli Pariser

Analysis

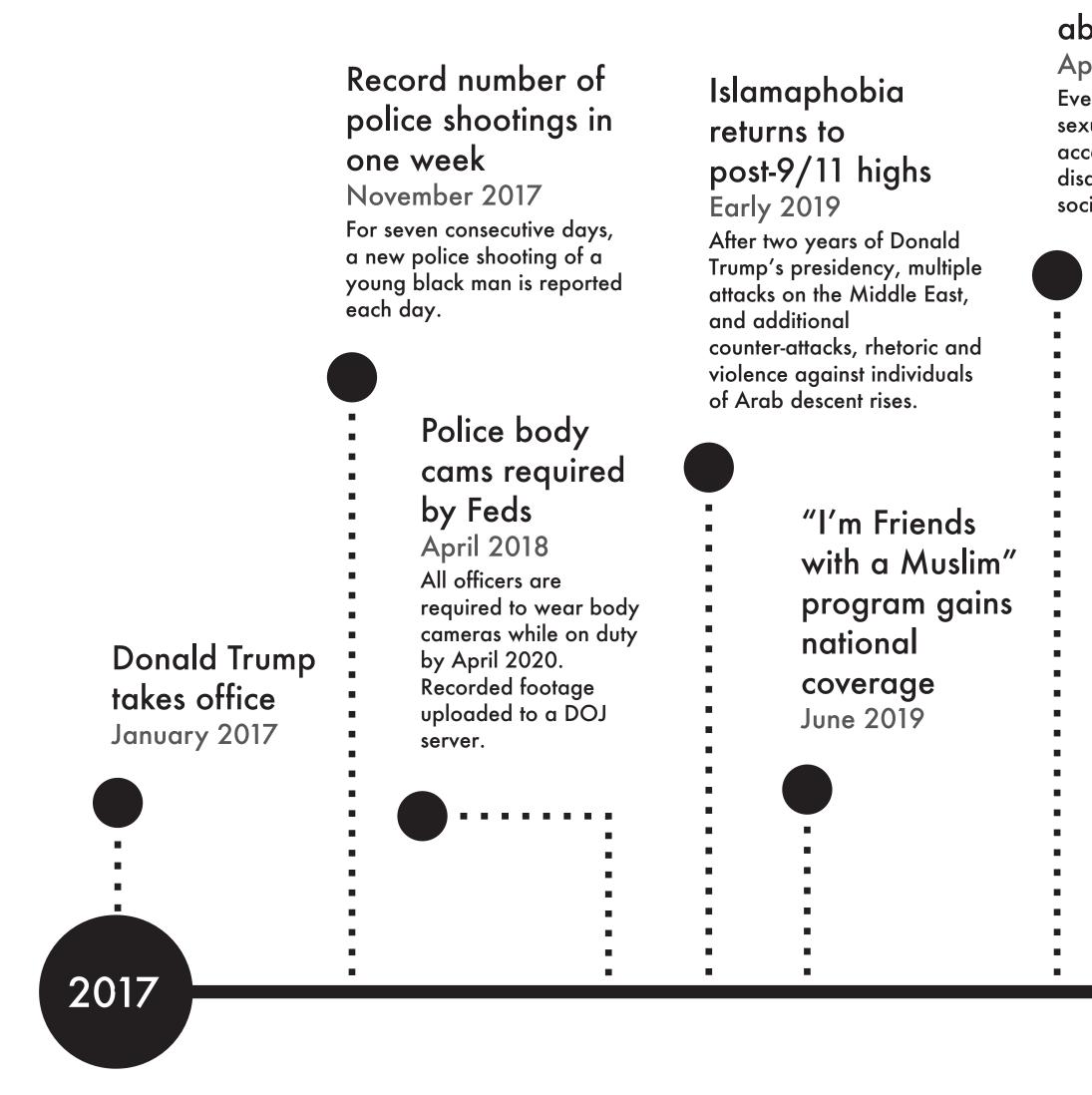
After studying the above signals, the path to the Memothy program becomes clearer. The presence of filter bubbles and the need for VR empathy point to why the program came to exist. Technologies like body cameras and Facebook Live point to the technical development of the input components in the Memothy Necklace. The use of virtual reality to build empathy points to the Memothy Goggles. China's trustworthiness scores and the use of data to profile society by Cambridge Analytica influenced the government's central control of the program and the tax credit and food stamp incentives.



Responsive Mobile Environments Spring 2017, Carnegie Mellon University

What Led to Memothy?

A Timeline of Inciting Events



US Census collects data about more identities April 2020

Every citizen is asked questions about sexuality, gender identity, nationality, accent, religion, pre-existing conditions, disability, basic body measurements, and socioeconomic status.

Recording indicator required on mobile devices

March 2021

Congress directs FCC to require all mobile devices with cameras and/or microphones, including smartphones, tablets, and wearables, to visually indicate when content is being recorded.

. . . .

US Congress establishes "identity scales" to facilitate non-discrimination legislation

February 2022

After backlash from the limited opportunities for self-identification in the 2020 Census, Congress passed a law that required identities to be represented across a spectrum, modeled after the Kinsey scale.

5G mobile networks widely available

October 2022

The Next Generation Mobile Networks Alliance announced that all major cities and 70% of the US population have access to 5G, increasing cellular upload and download speeds.

Former BLM leader elected US President

November 2023 David Jackson, a former community leader of the Black Lives Matter activist group, is elected as the second African American president.

Google Glass 2 sales hit 50M January 2024

In contrast to the first generation of Google Glass, the long-awaited second release was met with wild success. About 15% of US citizens own a Google Glass, compared to 85% who own a smartphone.

Bureau of Compassion created

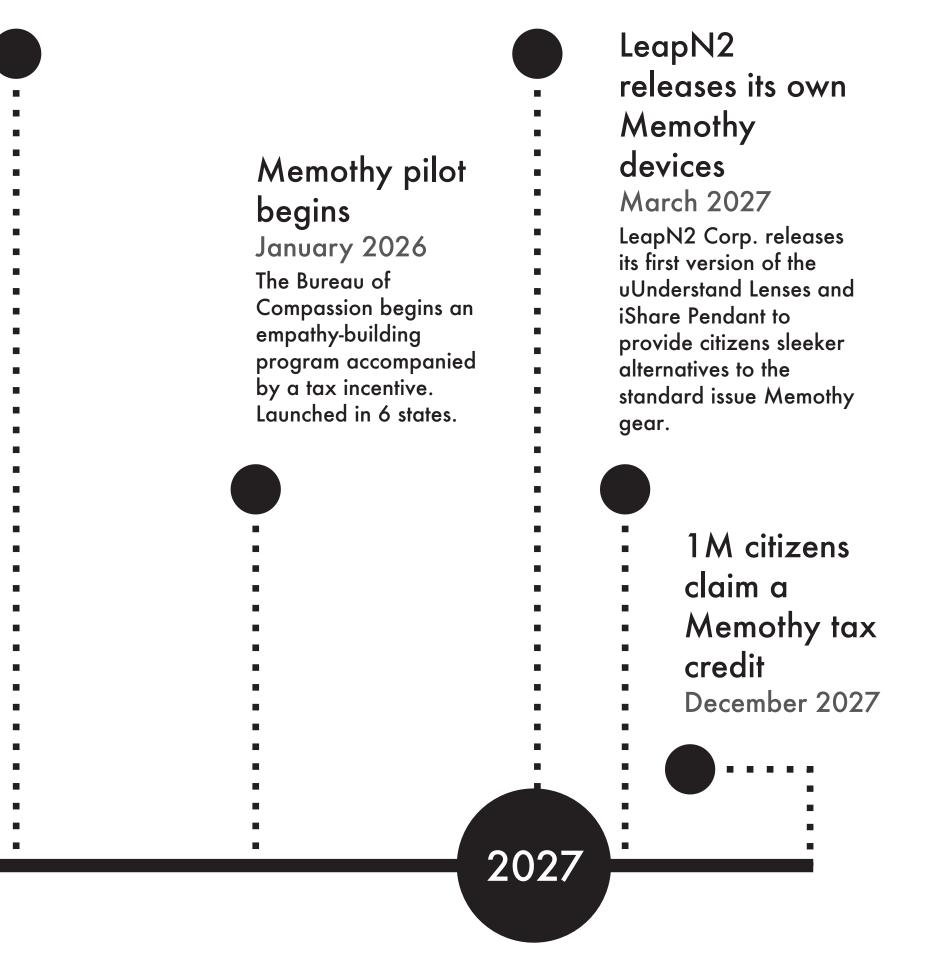
February 2025

The Department of Homeland Security forms the Bureau of Compassion to address the widespread "lack of sympathetic pity and concern for the sufferings or misfortunes of others".

Memothy Program officially launched

January 2027

After a successful pilot program, the Bureau of Compassion offers the Memothy Program nationwide, including both mobile and web registration. Memothy partners were matched from across the United States, including individuals from a majority of the identity scales.



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