

## **IMMERSIVE EXPERIENCE DESIGN** Based on memory theme of Alzheimer's disease

#### THEME



#### Process

Memories slowly become blurred and confused until they dissipate as time fades away

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# CATALOGS

### CHAPTERS

- Inspiration
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  - Prototype Experiments
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#### Https://Blogs.Ed.Ac.Uk/Dmsp-Process24/2024/02/12/Project-Report/

Due to the limitations of the PDF format, many practices will be detailed exclusively in the blog, showcasing our team's more meticulous design process from zero to one.

# **INSPIRATION**

### BRAINSTORMING

When brainstorming,

we initially branched out around two keywords,

**NATURE** and **MEMORY**, generating some rough themes.



## RESEARCH

### **ABOUT ALZHEIMER'S DISEASE**

During the desktop research phase,

we gained insight into the

**BASIC CHARACTERISTICS** and **MEMORY CHANGES** of Alzheimer's disease

Research-Etiology of Alzhemier's Disease-Brain Nerve





Abnormal results of ßamyloid and tau protein

Studies have shown that beta-amyloid (A  $\beta$ ) and tau proteins are major components in the molecular pathogenesis of Alzheimer's disease (AD).

The genetic analysis of frontotemporal dementia and parkinsonism linked to chromosome 17 (FTDP-17) revealed the presence of mutations in the tau gene in affected members. Taken together, A  $\beta$ might exert neurotoxicity through tau, leading to neuronal loss in the AD brain.

Finally, it leads to the death of nerve cells.

#### Three main stages of Alzheimer's disease



1. Increased confusion with memory loss





2. Difficulty communicating and understanding

3. Irritable and agitated behaviour

4. Decreased coordination

Middle Stage (Moderate Alzheimer's disease) 1. Impaired physical functioning

2. Loss of speech and communication

3. Loss of awareness of everything, including himself/ herself

## RESEARCH

### **RELATED ARTWORK APPRECIATION**







#### **POSSIBLE TECHNOLOGIES**



Touchdesigner

>





Arduino

# **INSPIRATION**

### **DOCUMENTARY FILMS AND MOVIES**

This is a phenomenon of **GLOBALISATION** that deserves to be noticed.



"HOPKINS DELIVERS A TOUR-DE-FORCE PERFORMANCE"

\*\*\*\*

"ONE OF HOPKINS' GREAT SCREEN PERFORMANCES"

"STUNNING"

COLMAN IS DYNAMITE"

MARK GATISS IMOGEN POOTS RUFUS SEWELL OLIVIA WILLIAMS

FATHE

тне

A FILM BY FLORIAN ZELLER-

PLEASE REMEMBER ME

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赵青 冯都 作品 A film by ZHAO QING & VIOLET DU FENG 执

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#### We were all deeply moved and solidified the idea of the project

### ABSTRACT

Against the backdrop of the global aging population, the project draws inspiration from Alzheimer's-related documentaries. Focusing on the irreversible memory decline of Alzheimer's patients, the project creates an immersive experience.

This immersive installation guides viewers through an experiential journey depicting the stages of memory decline in Alzheimer's patients

#### PROCESS

Divided into four stages: **PROLOGUE, BLUR, FADE**, and **VANISH** the installation sequentially leads participants through each phase using one integrated device.

### MAYBE MEMORIES

## WILL FADE AWAY WITH TIME

### BUT LOVE IS ETERNAL

### CONTENT

#### **STAGE 1: PROLOGUE**

Visitors will personally step into the center of the black screen. At this point, in terms of sound, voices from all directions will emerge, increasing in speed over time, accompanied by the overlay of different voices. Visually, text in a visualized form will drift into the screen through projectors, accumulating higher as time progresses.

This stage presents a tense atmosphere of not having enough time to react, allowing visitors to experience, from a first-person perspective, the information overload of memories in the brain of an Alzheimer's patient during the onset of the disease.



### Hey Can you hear me clearly? Nice to meet you.

where you put the cups at did you have for dinner last night ? 'hat's your name ?

### CONTENT

#### **STAGE 2: BLUR**

There is confusion in recognizing surrounding faces and cognitive distortions in perceiving object positions. Concerning facial recognition, the project will utilize AI to generate more similar faces based on portrait images of different age groups from four ethnicities, and conduct visual processing in touchdesigner. In terms of object cognition, the project will select close-up images of family scenes from different countries and apply visual effects such as blurring to the objects in the scenes using touchdesigner.

This stage, combined with the backdrop of globalization, delivers a stunning visual impact to the visitors.

#### **STAGE 3: FADE**

In the Fade stage, participants will be prompted to take a photograph of themselves in front of a camera, maintaining the visual impact of the previous phase's abundance of facial images. Afterward, participants can pronounce their own names. Depending on the volume of their voice, their image on the screen will change in various ways. When participants stop speeking, the faces on the screen will gradually fade away.

This stage, we simulate the perspective of individuals around Alzheimer's patients by calling out their names, prompting the patients to recall their own appearance.

## The fading face on the screen mirrors the cognitive response of the patient to external stimuli.

### CONTENT

#### **STAGE 4: VANISH**

Visitors will experience, from a first-person perspective, the plight of Alzheimer's patients facing the dissipation of self-awareness. When the visitor presses the button, the screen will capture their face in real-time, and subsequently, the captured photo will disperse in particle form synchronized with the music. Eventually, the screen turns black, displaying a line of philosophical text about life:

Perhaps memories fade with time, but love is eternal

### PROTOTYPE

- Improve public awareness of Alzheimer's disease
- Reverse society' s prejudice and stigma against Alzheimer' s disease
- Arouse society' s attention and respect for the elderly
- Exploring the application of art and technology in solving social problems

### SIGNIFICANCE

- Improve public awareness of Alzheimer's disease
- Reverse society' s prejudice and stigma against Alzheimer' s disease
- Arouse society's attention and respect for the elderly
  Exploring the application of art and technology in solving social problems

### **MOOD BOARD**



## PROTOTYPE

### **REFER TO THE BLOG FOR DETAILS**



# REFERENCE

### LIST

- [1] <u>A Marriage to Remember | Alzheimer's Disease Documentary | Op-Docs | The</u> New York Times
- [2] Alzheimer' s documentary in China: Please remember me
- [3] The Father
- [4] ROBOTIC VOICE ACTIVATED WORD KICKING MACHINE
- [5] <u>Remember me</u>
- [6] DASH
- [7] Open source Character materials; Portrait pictures sources
- [8] Images Sources:  $\bullet$
- <u>https://www.pinterest.co.uk/pin/91901648638671628/</u> https://www.pinterest.co.uk/pin/1618549862356870/ https://www.pinterest.co.uk/pin/1109785533161637939/ https://www.pinterest.co.uk/pin/73465037663450281/ https://www.pinterest.co.uk/pin/391179917643670352/ https://www.pinterest.co.uk/pin/823806956845791472/ [9]Speechify: AI text to speech tool



