SYMBIOSIS INSTITUTE OF TECHNOLOGY

DESIGN THINKING
GROUP 26
CA3 COMPONENT

BY-

Mohammad Omar	**21070122095**
Saylee Mangalmurti	**21070122151**
Sangeet Agrawal	**21070122140**
Sarothi Adhikary	**21070122148**

UNDER THE GUIDANCE OF-
Bhavna Ambudkar

Popcorn Brainstorming

Question :- "What can be our topic for design thinking component"

Sangeet : Tutorial Platform for smartphones and laptops (softwares)

OR → provides online guidance to user

Free ??
Not ??

for everything related to laptops and some software (like classroom)
→ can be used by students and teachers alike, as well as anyone who is not that familiar with tech

Sarathi : Brain Implants for memory recall
→ can be used to reduce memory related challenges

should
be
possible

→ can be use used for investigations to accessing other people's memories
→ can be used to extract retrieve memory memories as well

Paperless Digital Screens → like Jarvis

Saylee : Paperless Digital Screens (like Jarvis)
→ reduce environmental problems
→ no books just digital screens where all info would be stored
→ can be integrated with AI for further improvements

Omar : Integrating traffic light mechanism
on google maps
→ OR APP which shows the traffic
lights for different areas

Final Problem Statement :
"Implementation of Brain Implants for
memory recovery / recall"

Sarathi : Memory enhancing brain implants that are safe and easy to use

Sangeet : ~~Soun~~ Storage?

Omar : Can we use something like a hard drive

Saylee : But that would have to carried around

Sangeet : What about using cloud for storing the memories. That way we would not have to carry it around

Sarathi : ~~That sounds~~ Good idea. It will consist of a kind of spectacles which on wearing will access the memories

Omar : It would be better if we use a glove kind of structure as well. Then ~~I~~ the user can use the glove to access which memory to access

Saylee : Sounds good. The memories would be recorded ~~throughout~~ each hour and after every 24 hour, the cloud storage would be emptied

Sangeet : But there can also be problems with security, and also ethical considerations.

sarothi : That can be solved by cooperating with engineers a . Ofcourse we would have to perform trials first

Omar : Can also be used for police investigation For example if the police wants to check where a particular user has been in the past 24 hour , they can access the user's cloud to access the memories

Sangeet : Future Scope?

Saylee : Brain computer interface.
→ B computer can be used to edit memories , access them , change them etc

A I integration
→ Using A I to detect potential harmful situation in past memories. can help so that we dont repeat the same problem in future

Some Ideas for Prototype:

Hardware:

UI Display:

Feedback Form Screen Shot

group 3 proposed solution feedback

PROBLEM- The need for innovative interventions to mitigate memory loss and preserve cognitive function in individuals affected by aging, stress, trauma, and neurological conditions such as Alzheimer's, in order to enhance their overall well-being and quality of life.
OUR PROPOSED SOLUTION-

- Developing a brain implant for memory storage utilizing cloud technologies, enabling access to memories at a later time.
- The system would incorporate spectacles to initiate a virtual display and a specialized glove-like structure for interacting with the display.

sarothi.adhikary.btech2021@sitpune.edu.in Switch account

* Indicates required question

On a scale of 1 to 5, how likely are you to use a brain implant for memory storage *
utilizing cloud technologies?

	1	2	3	4	5	
Not very	○	○	○	○	◉	Very much

Do you believe this technology could effectively address prevalent memory loss *
issues due to aging, stress, trauma, and neurological conditions like
Alzheimer's?

	1	2	3	4	5	
Not very	○	○	○	○	◉	Very much

How comfortable are you with the idea of using spectacles to initiate a virtual *
display and a specialized glove-like structure for interacting with the display?

	1	2	3	4	5	
Poor	○	○	○	○	◉	Excellent

Would you be willing to participate in further testing or trials of the brain implant * **prototype?**

	1	2	3	4	5	
not willing	○	○	○	○	◉	extremely willing

How concerned are you about the potential privacy and security risks associated * **with storing memories on a cloud-based system?**

	1	2	3	4	5	
not much concerned	○	○	◉	○	○	extremely concerned

In your opinion, what are the most significant benefits of utilizing a brain implant * **for memory storage compared to traditional memory aids or interventions?**

	1	2	3	4	5	
not significant	○	○	○	◉	○	significant

Would you recommend the use of this brain implant prototype to a friend or * **family member experiencing memory loss issues?**

	1	2	3	4	5	
not likely	○	○	○	◉	○	likely

What improvements or additional features would you like to see in the brain * **implant prototype?**

- ☐ collaboration with pharmaceuticals
- ☐ brain computer interfaces
- ☐ AI integration
- ☐ integration with more external devices
- ☐ Emotion Recognition and Regulation

How do you think this technology could impact the overall well-being and quality * **of life of individuals affected by memory loss issues?**

- ☐ Very Negative Impact
- ☐ Negative Impact

What are your initial thoughts or concerns about the proposed brain implant prototype? *

Your answer

Any additional comments or suggestions for our team regarding the brain implant prototype?

Your answer

Full name *

Your answer

mobile number *

Your answer

city/location *

Link:

[Brain Implant for Memory Recall](#)

Screen Shot of Responses:

	A	B	C	D	E	F	G	H	I
1	Timestamp	Email Address	On a scale of 1 to 5, how	Do you believe this tech	How comfortable are yo	Would you be willing to	How concerned are you	In your opinion, what ar	Would you recommend
2	4/23/2024 18:38:32	sakshi.chauhan.btech202	1	3	3	1	3	2	3
3	4/23/2024 18:41:13	tulika.tripathi.btech2021@	4	4	4	4	4	4	5
4	4/23/2024 18:41:36	rudra.singh.btech2021@	5	5	5	5	5	5	5
5	4/23/2024 18:47:38	sachit.desai.btech2021@	4	4	4	3	5	4	5
6	4/23/2024 18:57:25	sleeksnakeserpent@gma	3	1	5	1	5	2	1
7	4/23/2024 19:01:57	saksham.gupta.btech202	4	3	2	4	3	3	3
8	4/23/2024 19:27:44	isha.isha.btech2021@sit|	5	2	3	4	5	4	5
9	4/23/2024 19:47:56	nikita.kharb.btech2021@	3	3	3	3	3	3	3
10	4/23/2024 22:39:06	divyanshi.agr16@gmail.c	3	5	5	1	3	3	3
11	4/23/2024 22:57:59	mudit.garg.btech2021@s	3	4	4	2	4	4	3
12	4/24/2024 8:39:55	uzair.shaikh.mtech2023@	4	5	4	4	4	4	4
13	4/24/2024 8:40:58	kinkiboy39@gmail.com	5	5	5	5	2	5	5
14	4/24/2024 8:59:26	hsuya.agr@gmail.com	3	5	5	1	3	3	3
15	4/24/2024 9:06:07	shalu.beekaneer@gmail.	3	5	5	1	3	3	3
16	4/24/2024 9:20:41	sankettemporary029@gn	3	5	5	1	3	3	3
17	4/24/2024 9:45:09	darshanmiyani81@gmail	3	2	3	3	3	3	3
18	4/24/2024 13:11:42	adityasinghal785@gmail.	3	4	3	4	3	4	3
19	4/24/2024 13:38:50	sspwr03@gmail.com	2	4	4	1	5	3	1
20	4/24/2024 16:46:45	vanshchhabria@gmail.cc	3	1	2	3	3	2	2
21	4/24/2024 19:24:14	akshya.iyer.btech2021@	4	4	5	4	3	5	5

What improvements or additional fea	How do you think this technology could impac	What are your initial thoughts or concerns about	Any additional comments or suggestions for our	Full name
Emotion Recognition and Regulation	Positive Impact	I think it's good for old people who face dementia	No	Sakshi Chauhan
brain computer interfaces, AI integration	Positive Impact	great initiative		tulika tripathi
Emotion Recognition and Regulation	Very Positive Impact	NA	NA	Rudra
AI integration, integration with more ext	Positive Impact	Great idea, but has several safety and privacy cc	NA	Sachit Desai
integration with more external devices,	Negative Impact, Neutral	Memories aren't like lil video clips, they have em	Brain's more vast than whatever is vast than the Uni	Paskin
AI integration	Neutral	.	.	Saksham
brain computer interfaces, AI integration	Neutral, Positive Impact	security issues		Isha
AI integration	Neutral	Nothing	NO	Nikita kharb
collaboration with pharmaceuticals, brai	Neutral	-		Divyanshi Sharma
collaboration with pharmaceuticals, brai	Neutral, Positive Impact	Looks good	-	Mudit Garg
collaboration with pharmaceuticals, brai	Positive Impact	Good thoughts	NA	Uzair Shaikh
brain computer interfaces	Neutral	Very futuristic		Bhavish Polavarapu
collaboration with pharmaceuticals, brai	Neutral	Good		Ayush Patil
collaboration with pharmaceuticals, brai	Neutral	-		Shalu Shah
brain computer interfaces, integration w	Neutral	Nice		Sanket Arya
brain computer interfaces, AI integration	Neutral	Not any unique but build more good prototype		Darshan miyani
brain computer interfaces, AI integration	Neutral	It's more risky	No	Aditya Singhal
Emotion Recognition and Regulation	Positive Impact	Privacy is a main concern		Swati Sharma
brain computer interfaces, integration w	Neutral, Positive Impact	Not really much	Not	Vansh chhabria
brain computer interfaces, Emotion Rec	Very Positive Impact	The proposed solution is certainly innovative, and	Ensure strong security and privacy of the users mem	Akshya Ganeshan Iyer

How do you think this technology could impac	What are your initial thoughts or concerns about	Any additional comments or suggestions for our	Full name	mobile number	city/location
Positive Impact	I think it's good for old people who face dementia	No	Sakshi Chauhan	9924913224	Ahmedabad
Positive Impact	great initiative		tulika tripathi	8687899808	pune
Very Positive Impact	NA	NA	Rudra	7505304949	Pune
Positive Impact	Great idea, but has several safety and privacy cc	NA	Sachit Desai	7722096324	Pune
Negative Impact, Neutral	Memories aren't like lil video clips, they have em	Brain's more vast than whatever is vast than the Uni	Paskin	6377899560	Kangra
Neutral	.	.	Saksham	9200317012	Pune
Neutral, Positive Impact	security issues		Isha	8534846229	Pune
Neutral	Nothing	NO	Nikita kharb	8168330983	pune
Neutral	-		Divyanshi Sharma	6714551434	Pune
Neutral, Positive Impact	Looks good	-	Mudit Garg	940820002	Pune
Positive Impact	Good thoughts	NA	Uzair Shaikh	9822028351	Pune
Neutral	Very futuristic		Bhavish Polavarapu	9766052937	Pune
Neutral	Good		Ayush Patil	7868674357	Pune
Neutral	-		Shalu Shah	9702078908	Pune
Neutral	Nice		Sanket Arya	9897969594	Pune
Neutral	Not any unique but build more good prototype		Darshan miyani	685425799	Mumbai
Neutral	It's more risky	No	Aditya Singhal	8104705268	Mumbai
Positive Impact	Privacy is a main concern		Swati Sharma	9987460917	Dehradun
Neutral, Positive Impact	Not really much	Not	Vansh chhabria	9820907637	Bombay
Very Positive Impact	The proposed solution is certainly innovative, and	Ensure strong security and privacy of the users mem	Akshya Ganeshan Iyer	8830311502	Pune

Advancing Memory with Brain Implants

SIT CS-B | Design Thinking | Group No. 26

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Contents

Problem Selection

Problems	Opportunities
Tutorial Platform for Smartphones and Laptops	• Rising demand for comprehensive online guidance. • Fragmented resources lack centralized accessibility. • Opportunity for an integrated, user-centric solution.
Memory Recall through Brain Implants	• Increasing prevalence of memory-related challenges. • Ineffectiveness of current interventions. • Potential for groundbreaking memory enhancement technology.
Paperless Digital Screens inspired by Iron Man	• Environmental concerns driving the need for paper alternatives. • Persistence of paper-based methods despite technological advancements. • Potential for transformative digital solutions.

Finalized Problem

Need to be Addressed

- Prevalent memory loss due to aging, stress, trauma, and neurological conditions like Alzheimer's.
- Lack of effective interventions to address memory loss and preserve cognitive function.
- Impact on the overall well-being and quality of life of affected individuals.

Core Problem Statement

The need for innovative interventions to mitigate memory loss and preserve cognitive function in individuals affected by aging, stress, trauma, and neurological conditions such as Alzheimer's, in order to enhance their overall well-being and quality of life.
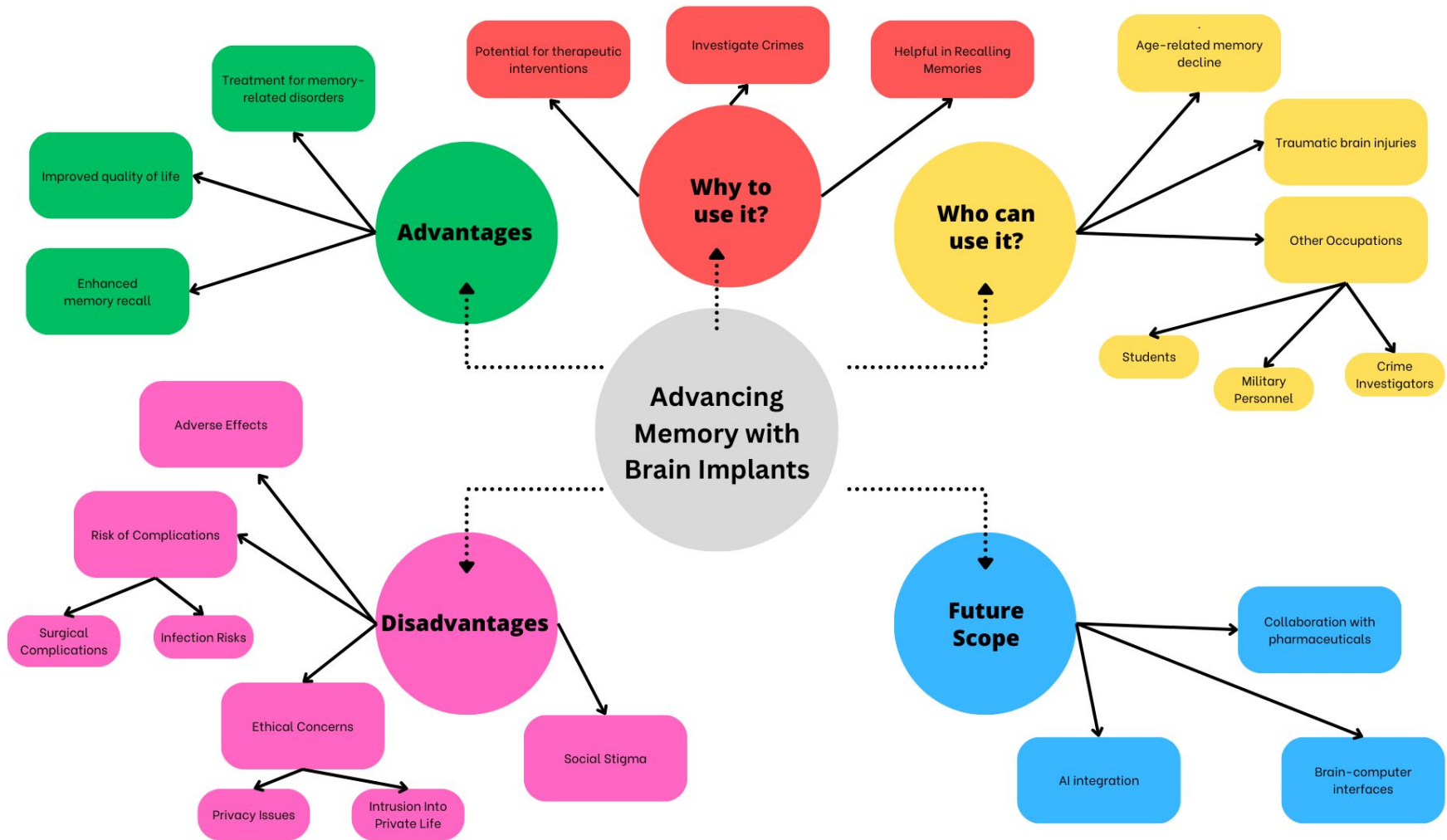
Ideation Phase

Contributors	Ideas
Sarothi Adhikary	• I think it should always be a part of the human body, like a brain implant
Sangeet Agrawal	• But how would the memories be stored? • We could consider implementing cloud storage for memories captured by brain implants.
Mohammad Omar	• Safety and ease of deployment are crucial. • We must consult medical professionals to ensure safe implementation. • Also, what if it could be connected to the eye? Like, on double blinking, memories could be accessed.
Saylee Mangalmurti	• Absolutely, we need to make sure it's user-friendly for all ages. • Instead of connecting it directly to the eyes, maybe we could use something like a spectacle. • When worn, it could connect with the brain and then access memories.

Proposed Solution

- Developing a brain implant for memory storage utilizing cloud technologies, enabling access to memories at a later time.
- The system would incorporate spectacles to initiate a virtual display and a specialized glove-like structure for interacting with the display.

Advancing Memory with Brain Implants

Advantages
- Treatment for memory-related disorders
- Improved quality of life
- Enhanced memory recall

Why to use it?
- Potential for therapeutic interventions
- Investigate Crimes
- Helpful in Recalling Memories

Who can use it?
- Age-related memory decline
- Traumatic brain injuries
- Other Occupations
  - Students
  - Military Personnel
  - Crime Investigators

Disadvantages
- Adverse Effects
- Risk of Complications
  - Surgical Complications
  - Infection Risks
- Ethical Concerns
  - Privacy Issues
  - Intrusion Into Private Life
- Social Stigma

Future Scope
- Collaboration with pharmaceuticals
- AI integration
- Brain-computer interfaces

SWOT ANALYSIS

Strength	Weakness	Opportunity	Threats
Effective in enhancing memory recall	Risk of surgical complications and adverse effects	Collaboration with pharmaceutical companies for combined treatments.	Ethical concerns regarding privacy
Potential long-term solution for memory-related disorders.	High cost of surgery and implantation	Integration with artificial intelligence for personalized memory enhancement.	Social stigma associated with brain implants.
Personalized memory enhancement based on individual needs	Limited accessibility to the technology due to cost and availability	Collaboration with academic institutions for research and development	Potential for misuse or abuse of memory enhancement technology

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Hope you have a nice day ahead! 😃