

reMIND: Digital Assistant for AD and Dementia Patients

SSG

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Course title

Introduction to Human Computer Interaction

Teacher's name

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I – Introduction

Instruction: For this part, write the category you have chosen and the reason why you chose that category. Discuss the specific quality of life issue that disease patients need to confront. Expound more on the patient's capabilities/limitations against your design choices.

We have chosen to direct our attention towards Alzheimer's Disease (AD) and Dementia patients. AD is a progressive disorder that tampers with the cognitive abilities of a person. In the Philippines, it accounts for 0.30% of the total deaths in 2020 (World Health Rankings and the tally of the World Health Organization) and was concluded as a prevalent disease (De Guzman et al., 2018) that is estimated to reach d 220,632 new cases in 2030, 295,066 in 2040, and 378,461 in 2050 (Dominguez et al., 2021).

Among its numerous complex symptoms, Alzheimers and Dementia patients suffer from memory loss, unclear reasoning, and inconsistent personality and behavior. Both plaque the mental facilities of the patients and impact the quality of their lives in negative ways (National Institute on Aging, 2022).

We've come up with reMIND in order to better assist patients, caregivers, and their loved ones in coping with AD. The wide range of functionality and compatibility aims to tackle the challenging consequences of the disease. The app comes with comprehensive reminders, built-in features, and multiaccess function for patients and assistance. The big obstacle of memory loss was tackled in multiple ways through using the app - making sure that gaps are filled through a detailed and sympathetic approach.

II – Intervention

Instructions: Discuss how your intervention addresses the life issue of the patients with the disease in general and specifically.

Tackling Alzheimer's Disease and Dementia through the digital scope poses a challenging approach as patients are in better care through physical assistance. However, we aim to integrate assistance and innovation as a way to help alleviate the burden of having AD and caring for one through an all-in-one app.

reMIND carries functionalities including reminders for identity, tasks, schedules, and appointments. As it is vital to handle the occurrence of memory loss among patients, a built-in notepad is designed for accessible writing to encourage the formulation of thoughts from AD and Dementia affected persons while they still can. This may serve as a memory for them to read later. The notepad also has a to-do list section that can be filled by the patient, caregiver, and loved ones. This is in line with the calendar feature which holds daily, weekly, and monthly schedules and appointments.

Furthermore, ease of navigation was also considered when designing reMIND. We have come up with a virtual assistant (VA) that can be activated by voice and chat. The VA has a noticeable prompt at the app homepage and the notification bar at the patient's lockscreen. On the other hand, the user may also connect with their contacts with a built-in messaging feature.

Compatibility serves as a key feature for reMIND to cater to a wide range of users and effectively help in combatting Alzheimer's and Dementia. reMIND can be accessed through multiple devices such as smartphones,

Tablets, Laptops, Personal Computers, and Smartwatches which has added features of biosensing. Sleep tracking is also an added feature as it is also essential to manage the patient's difficulty in sleeping to slow down the progressive state of the illness (MayoClinic, 2021). Additionally, mind enhancing and interacting games can further stimulate the brain in memory and reasoning. Specialized games such as puzzles and word hunts are also designed within reMIND.

III – Final Design

Instructions: Place your implemented design here. Discuss its parts, features and functionality in detail. Place here the prototype's screenshots or any related design or pictures.

IV – References

Instructions: Write the references here. Use APA format in writing the references. You may visit this site for more information: <https://www.scribbr.com/apa-style/apa-reference-page/>

Mayo Clinic. (2019, December 21). Managing Alzheimer's sleep problems. Mayo Clinic.
<https://www.mayoclinic.org/healthy-lifestyle/caregivers/in-depth/alzheimers/art-20047832>

[Alzheimers & Dementia in Philippines \(worldlifeexpectancy.com\)](https://www.worldlifeexpectancy.com/alzheimers-dementia-in-philippines)

Dominguez, J., Jiloca, L., Fowler, K. C., De Guzman, Ma. F., Dominguez-Awao, J. K., Natividad, B., Domingo, J., Dominguez, J. D., Reandelar, M., Ligsay, A., Yu, J. R., Aichele, S., & Phung, T. K. T. (2021). Dementia Incidence, Burden and Cost of Care: A Filipino Community-Based Study. *Frontiers in Public Health*, 9. <https://doi.org/10.3389/fpubh.2021.628700>

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National Institute on Aging. (2022, October 18). What Are the Signs of Alzheimer's Disease? National Institute on Aging. <https://www.nia.nih.gov/health/alzheimers-symptoms-and-diagnosis/what-are-signs-alzheimers-disease>