



Alzheimer's game

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VIRTUAL REALITY GAME TAKES NEW APPROACH TO ALZHEIMER'S RESEARCH

 TELECOMMUNICATIONS

Sea Hero Quest tracks potential early signs of dementia, with two minutes of game play equating to five hours of lab-based research.

The constant creation of new technology to assist research into some of the most debilitating and common diseases is proving revolutionary, with dementia being a key condition being tackled by inventors in multiple capacities. A series of virtual reality short films created to **trigger happy memories** for Alzheimer's patients and a **wearable button that alerts carers** when a patient with the disease goes astray have both contributed to the care and investigation into the condition.

Virtual reality has an integral place in finding out more about dementia, and free smartphone game **Sea Hero Quest** hopes to contribute its own findings. Despite being available for over a year, its creators have recently released a VR version that they hope will provide further insights. Alzheimer's Research UK, Deutsche Telekom and scientists from the UK's University College of London and University of East Anglia created the gaming app to help researchers understand in detail how brains navigate space, forming a huge, crowdsourced database on human spatial navigation. The VR version will allow scientists to track even more subtle and detailed reactions, such as eye movements, in addition to assisting to replicate credible laboratory-based experiments not possible in the original mobile setting with the help of game features such as the Morris Water Maze.

There is a new diagnosed case of dementia every three seconds, and the almost three million people that have played Sea Hero Quest to date make it the largest dementia study in history. By playing the game for two minutes, users generate the same amount of data scientists would take

five hours to collate in lab-based research. Research to date has found that special navigation capabilities begin to decline from the age of 19, and there are fundamental differences in such navigation between men and women. How else could apps and virtual reality contribute to essential research into incurable diseases?

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