

AI based Video games that diagnose, monitor and treat depression developed by scientists

What?

A UK-based mental health-focused platform named Thymia has developed a special platform that uses special video games to diagnose, monitor, and treat depression patients.

Neuropsychological games are used to gather a user's cognitive behaviors like error rates, reaction times, and memory. Along with the games, Thymia uses anonymized facial features to look for depression signs. It also gathers audio data of patients to detect signs of depression using speech.

The company has currently gathered user data from over 2,000 depression patients as well as healthy individuals to train their AI model. However, experts are currently skeptical about whether the system would have the desired effect on patients or not. It will begin clinical trials for the system later this year.

So What?

There is increasing pressure on healthcare systems to treat patients. Moreover, the treatment is expensive and largely inaccessible for many groups of people. Video games could be used to augment therapy and reduce workload on healthcare institutions, allowing for more quality delivery of mental healthcare services

Sources

[Video games that diagnose, monitor and treat depression developed by scientists | Science & Tech News | Sky News](#)

[This Company Is Using AI-based Video Games to Monitor and Treat Depression | Beebom](#)

More than a third of all Canadians reporting burnout

What?

A new research study – commissioned by Workplace Strategies for Mental Health, compliments of Canada Life, and conducted by Mental Health Research Canada in December 2021 revealed that more than 35 per cent of all working Canadians are feeling burned out. The study measured a wide range of factors relating to how employees are feeling at work. Those factors included everything from engagement and recognition to workload and safety. Burnout is often characterized by emotional exhaustion, cynicism, negativity and reduced efficiency in the workplace. Industries that showed burnout rate of more than 35% included: Health and patient care (53 per cent), Transportation (40 per cent), Finance, legal and insurance (39 per cent), Education and childcare (38 per cent), First responders (36 per cent).

So What?

Employers need to consider new leadership approaches to help those employees most at risk of burnout. A supportive and low stress environment unique to the needs of the workplace needs to be encouraged through availability of mental health support and innovation.

Sources

[New research shows more than a third of all Canadians reporting burnout \(newswire.ca\)](https://www.newswire.ca/news-releases/new-research-shows-more-than-a-third-of-all-canadians-reporting-burnout-2021-1016882211)

Non-invasive vagus nerve stimulation

WHAT?

Non-invasive vagus nerve stimulation (nVNS) could provide an alternative treatment method for mental health illnesses and other health problems without the need for surgical implants. Two med-tech companies in the United States recently received Breakthrough Devices Designation from the Food and Drug Administration to accelerate the development and procedures for approval.

Med-tech start-up Evren Technologies has patented an earbud-like device which delivers light electrical stimulations to the vagal nerve. Early research has demonstrated that their device, named the Phoenix, can have a calming effect, and helps reduce symptoms of post-traumatic stress disorder (PTSD) among combat veterans with little to no side effects. Ongoing research is also looking at how nVNS could treat other mental illnesses.

SO WHAT?

If non-invasive treatment for mental health becomes readily accessible to individuals, it could improve the quality of life of patients without the unwanted side effects of medications. This could both free up resources for other patients, while offering a broader range of treatment methods.

Sources:

[How Does Vagus Nerve Stimulation Reduce PTSD Symptoms? | Psychology Today Canada](#)

[Frontiers | Non-invasive Vagal Nerve Stimulation Effects on Hyperarousal and Autonomic State in Patients with Posttraumatic Stress Disorder and History of Mild Traumatic Brain Injury: Preliminary Evidence | Medicine \(frontiersin.org\)](#)

Northern Sask. high school testing limits of virtual reality for mental health support

What?

“The Sekwe’ha: A community-based research approach to virtual mental health supports for indigenous youth”, is an applied research project focused on working with students in La Loche on how to use virtual reality to provide better mental health supports and enhance accessibility to care. Sekwe’ha in Dene means “for the children.”

One of the focus groups was completed in Dene to be inclusive of the community’s elders. Students and the community of La Loche are co-creators in the creation of the new virtual reality supports.

So What?

“This is a unique project as we are looking to balance the traditional knowledge of the elders, along with what the students see as their own pathways to wellbeing using new technologies,” says Boechler. “This has never been done before. Somebody from outside the community will not be providing the solution. It will be developed by the local community, so they feel ownership of what’s happening and the outcome.”

Mental healthcare has not been experienced equally by all Canadians. The hope is this virtual mental health resource can be used in other rural and Indigenous communities.

Sources

[Community of La Loche and Sask Polytech are co-creators bringing culturally responsive wellness initiatives into virtual reality through the Sekwe’ha applied research project](#)

[Northern Sask. high school testing limits of virtual reality for mental health support | paNOW](#)

Study finds AI creates significant work schedules, reduces physician burnout

What?

A study presented at American Society of Anesthesiologists' ADVANCE 2022 revealed that artificial intelligence-based work scheduling improves physician engagement and reduces burnout by creating fair and flexible schedules that support work-life balance, even during the pandemic.

In this study, an AI-based scheduling software granted more vacation days, reduced ungranted vacation days, and provided flexibility and predictability, compared to the previous staff-created scheduling system, resulting in significantly improved engagement scores from anesthesiologists within six months.

So What?

The needs of every individual worker are dependent on their own unique lifestyle, environment and more. Using AI to determine the best possible schedules where workers can perform their best without burnout could be beneficial to future workplaces.

Sources

[Study finds AI creates significant work schedules, reduces physician burnout \(bignewsnetwork.com\)](https://bignewsnetwork.com)