

1.4 million Canadian seniors reported severe loneliness. This leads to an increased risk of many health conditions including dementia, anxiety, falls, and chronic disease.

Combatting loneliness through an AI companion and virtual community gathering platform to enable elders to feel a sense of belonging, be more connected while ensuring food and medication adherence through a lifestyle assistant.

25% of elders live alone.

The elderly population in Canada is growing increasingly lonely and isolated. As spouses and close friends die, and children grow and have their own lives to manage, many older Canadians are finding themselves painfully lonely. They are often left in nursing homes with little interaction with friends and few visits from family members/loved ones.

People who are 80 years and older say that up to 80 per cent of the time they feel lonely. It is even said to be developing into a public health crisis – one that affects everything from a person's mental health to their immune system.

Loneliness itself does not directly cause health problems, however depression, desperation & feeling unappreciated and unwanted can cause seniors to neglect their health or resort to unhealthy behaviours, such as smoking, drinking or not taking their medication. It also has a stark correlation with mental health conditions and performance of an individual's immune system.

Factors that increase elders' risk of becoming socially isolated

- Living alone.
- Lacking access to transportation.
- Poor physical health.
- Having no contact with children or family.
- Living with low income.
- Lack of friends and companions.

Social isolation leads to many other repercussions including a 60% increased risk of developing dementia, as well as becoming more prone to falls, depression, heart disease, high blood pressure, obesity, Alzheimer's disease, cancer, and even death.



Frederick's life dramatically changed when he had to go to the hospital for a hip operation. At 70 years old, the effect it had on him was not just physical, but his mental health also deteriorated after spending three long months in hospital.

On leaving hospital, he was relocated to long-term care, a vast distance away from his friends and familiar surroundings. His family only visited once a year, leaving him in severe isolation. He became depressed and started to experience anxiety attacks. He later withdrew from life and doing the things he loved.

Frederick did not leave his residence for a whole year. He only saw a care worker for 20 minutes per day who was too busy doing their job. He had only the radio or the television for company. The life he once had surrounded by people he loved didn't exist anymore.

Solving this problem through leveraging exponential technologies would significantly improve the mental and physical health of millions of elders in Canada.

Solutions

At-home AI Companion

An Amazon Alexa programmable smart-speaker or Robot-type assistant at home can be implemented to provide companionship to the elderly through embracing human social qualities like conversation. In addition to this, to help with adherence, it can be programmed to remind users when to take medications and eat food, provide a platform with reminders to phone or video call their families and can perform tasks for household assistance.

Virtual Community Gatherings

To combat loneliness by getting immobile seniors together, virtual community gatherings on any TV screens at home can be implemented on a software that enables group calls with contacts and other individuals to develop new relationships. With this platform, they can find new friends, create topics that can be posted on the network where people can join to chat about, and chat with others with the provided messaging feature.