

Written Report

Potential Challenges

Challenge #1

From the future scene, we see that Mdm Lee misses her days with her children, but now is even used to being alone. This is an indication that in the future, the increased number of elderly people living alone could leave them more prone to loneliness and even depression. This is a very serious problem as to the point where Mdm Lee is annoyed to have company, we can see that leaving the elderly alone not only affects their mental health, but also could leave them unreceptive towards the plans to help them, which would be a huge setback. From the Straits Times: Number of seniors aged 65 and above who live by themselves has tripled since 2000, and a whopping amount of 42,100 elderly live alone in 2017. According to Channel News Asia, the elderly described being alone as like a knife poking their hearts.

Challenge #2

We can see Mdm Lee's reluctance to use technology in her unwillingness to use the Elderatch Sensor, something that is prevalent in many of the elderly. With technology set to be much more advanced and prevalent in the future, if the elderly, like Mdm Lee are unwilling to use the technological help provided, many schemes involving technology for the elderly would not be helpful. This poses a big problem because in the future, some of the best schemes to help the elderly would be based around new age technology, and this stubbornness shown by the elderly would make them ineffective.

Challenge #3

From the future scene, we can see that the shrinking workforce is putting a lot of stress on Jason. The aging population and shrinking birthrate means that there is a bigger onus on the workforce, as the elderly are retired and cannot work anymore. Thus is a major problem as Singapore's economy could be severely affected by this issue, which in turn could lead to less help for the elderly.

Challenge #4

In the future scene, Mdm Lee rejects the social workers who visited her house. This could be a problem as no matter what initiatives are rolled out, if the elderly are as unaccepting of help as Mdm Lee, these efforts will prove in vain and the problem of an aging population could

worsen.

Challenge #5

The overcrowding and high costs in hospitals as well as other facilities is making the elderly lose faith in them, as seen in the future scene. This is very likely as the government does so to attempt to boost the economy. But this could leave the elderly distrustful of the system, but also unwilling to seek help because of the high prices.

Fundamental Problem

Incorporating problems: 1, 2 & 4

Fundamental Problem

Given our inference that the elderly could suffer from loneliness, how might we encourage interaction for the elderly in 2050 and beyond to maintain their social well being?

Possible Solutions

Solution #1

Various GRCs can organise events specially targeted at the elderly, with events such as karaoke or bingo to entice them into coming out, and this will be the best opportunity for the elderly to meet each other and strike up relationships with fellow elderly or grassroots workers, which could be more effective than technology, something they could be unfamiliar with. Grassroot clubs have already started to do programs like sports and dancing activities to ensure active ageing for elderly. With advancements in technology, more activities can be held with equal ease.

Solution #2

Introduce/Increase subsidies for the elderly and their families on communicational products such as phones or possibly even holograms in order to facilitate interaction between the

elderly as well as their family, and ensure that they will not abandon this if scared of the company's high prices of such products.

Solution #3

With the aging population, we would incentivise working citizens to take on roles such as social workers and nurses, offering higher pay and better training. These positions are currently rather unwanted in society, mainly due to money concerns or risk of robots taking over, but if we make them lucrative jobs, more would want to apply to these positions, which are key to ensure both the elderly social and physical well-being. We would also introduce more advanced techniques and machines which potentially make these jobs better. Not to take over these jobs, but to assist the elderly that are currently doing the job. That way the elderly would have something to do and also will get paid, thus will not feel lonely or feel useless.

Solution #4

Virtual reality could be a solution to the problem. With preliminary stages of this technology already in place, it could realistically be the technology of tomorrow. The elderly can experience scenarios they never will in real life from the comfort of their homes, as well as chatting online to others who use this technology and are interested in similar elements of their virtual reality. We will also be willing to supply subsidies to the elderly if they express interest in these devices. They may even be able to keep in touch with their loved ones, even if they are not around or they are elsewhere. Sometimes adults may not have the time to visit their parents, so this provides them with the experience to connect with loved ones.

Solution #5

Artificial Intelligence, or AI, could also be a way to combat the aging population problem. Robots who can talk, look and even think like humans could be on the market in 2050, and we would support giving each household with elderly living alone an AI companion. This greatly benefits those who cannot leave the house, and also gives all the elderly with the greatest risk of being lonely a companion who can genuinely sympathise and care. Robots that will look like humans offer an alternative to relatives. They can provide companionship and so much more. They are very reliable and will give company to the elderly

Crafting Criteria:

Which solution would be the most ideal, futuristic and feasible for the elderly so that the elderly can benefit from technology to fight against loneliness? (On a scale of 1-5, with 1 being the worst and 5 being the best.)

	Grassroots activities	Subsidies	More nurses/social workers	Virtual reality	Artificial intelligence
Effectiveness	2	4	2	3	4
Cost friendliness	4	2	3	1	1
Futuristic	1	1	1	4	4
Total	7	7	6	8	9

Through our decision matrix, we have concluded that Solution #5 is the best solution.

Action plan derived from Solution #5

The artificial intelligence, or AI, that we plan to develop will mainly be centred around AI robots. Their primary goal will be interaction with the elderly, and future models of these robots should be able to think, look and speak like any other human. They can even be programmed to think like the elderly, which would be very useful in starting conversations. We feel that having a companion who can sympathise and care will be crucial in preventing loneliness among the elderly, some of whom have no one else to talk to. We intend these robots to be programmed to conduct fitness exercises based on the elderly's abilities at fixed times, in order to ensure that the elderly maintain their fitness at home. They will also have the ability to play chinese chess or do crosswords with their elderly owner to exercise their mind. The robot will have human feelings and can feel and touch, which could prompt the elderly to see the robot as a child or grandchild he or she is looking after, thus causing deeper human interaction and feelings, which is increasing the effectiveness of the robot. The robot will also take note of the elderly's interests and can also refer them to real people of similar interest also using the AI or internet, which would also ensure human connections, as the purpose of the robots is not to dominate the lives of seniors, but instead to boost their social interactions. The robot can also do day-to-day chores, thus decreasing the physical burden on

the elderly. They can also monitor their health condition, and can inform emergency services at the first sign of an emergency. This may seem too far off for current day Singapore, but we have already taken steps in AI, with 150 million set to be invested in AI over a period of 5 years, and expert Professor Louis Phee of NTU is optimistic of Singapore's chances in AI, with many of the fields leading brands operating in Singapore, causing him to "strongly believe" Singapore can be leaders in AI. This boosts the chances of this being a reality, and we are willing to give subsidies or free robots for the elderly, as while a short term loss is experienced, these robots accompany the elderly for the rest of their lives and improve the quality of the elderly's lives, and protect those most vulnerable of loneliness among the elderly.,

Citations

Here are our references; on current subsidies (Eldersshield)

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