

Future Trends Report
Based on Analysis of the Future Scene in Mid-Term and Final Evaluation

STEP 1. Identify Challenges

Read the Future Scene carefully and generate ideas for challenges, concerns, and possible related problems. Choose the 5 most important challenges and write them in the space provided. Include applicable research with appropriate in-text citations.

Challenge #1: Lack of social interaction

The future scene states that Mdm Lee felt mildly irritated by the interruption to her daily routine when her son went to visit her and wondered if she is too used to being alone. This could be problematic in 2030 as with the advancement of technology and an aging population, many jobs such as taking care of the elderly might be made automatic by automated motion sensors and there will thus be lesser social interaction between family members. The elderly will also not be able to see their children as often. This lack of social interaction could cause various illnesses leading from loneliness, as such the elderly would feel depressed due to loneliness and may contract mental issues such as going senile. Research by Psychology Today proves that friendship is a lot like food and we need it to survive. In fact, evidence has been growing that when our need for social relationships is not met, we fall apart mentally and physically. This might lead to a toll on health, eroding arteries, and creating high blood pressure.

Challenge #2: Discomfort with technology

The future scene states that Mdm Lee did not like the "Elderwatch Sensor" that her younger son Jason had installed to monitor her behaviour and to make sure that she was safe. She told Jason that she did not want that device in her house as she felt uncomfortable. This could be problematic in 2030 as the rise in advancement of technology is inevitable and devices such as the "Elderwatch Sensors" are necessary to keep the elderly safe. However, the elderly may feel that their privacy is being intruded, leading possibly to paranoia, anxiety and increased reluctance to use electronic devices. Mental Health America stated that symptoms of paranoia include intense and irrational distrust or suspicion for anyone around the person, inclusive of family members, close friends or relatives. Mind.org.uk also mentioned that anxiety and low mood might make you more vulnerable to paranoid thoughts. Research has also shown that people who are more anxious or have low mood are more distressed by paranoid thoughts. It might help to read our information on anxiety and depression.

Challenge #3: Insufficient Income & Savings

The future scene states that John had to bear the compulsory escalating healthcare costs for his employees, tax rates were increasing and the workforce had shrunk, placing more burden on the adults. This might be problematic in the year 2030 as the people in Singapore will be slowly getting less income due to the increasing tax rates and shrinking workforce. Furthermore, people might not get to earn as much money which will in turn lead to poorer lives. This could potentially lead to more people suffering from diseases due to stress. Based on the article from Mayo Clinic, stress symptoms might be affecting our health, even though we might not realize it. Stress symptoms can affect our body, thoughts and feelings, and our behavior. Stress that's left unchecked can contribute to many health problems, such as high blood pressure, heart disease, obesity and diabetes. Common effects of stress include: Headache, muscle tension or pain, chest pain, Fatigue, Stomach upsets and sleep problems. It might also affect our mood, causing anxiety, restlessness, feeling overwhelmed, drug or alcohol abuse and more.

Challenge #4: Poor Healthcare

The future scene states that even government hospitals these days are plagued with long queues, expensive healthcare costs, extremely limited bed space, and exhausted medical staff. And that was already with heavy investments from the government. This might be problematic in the year 2030 as it could potentially lead to some refusing to treat their illnesses due to the low quality of hospital services, especially those without government backing, and more people, even in the hospital, might not get the best treatment as soon as possible or not get any treatment at all. This could ultimately lead to more deaths in Singapore and more unhealthy citizens. A study by the New York Post claims that one-in-four American families have had to turn down medical care that they needed because of the cost. Older millennials have 32% shunning medical care because they could not afford it. Some who lived in poverty are regularly forced to put their health at risk in order to afford basic needs.

Challenge #5: Unwillingness to use Government funds on elderly

The future scene states that after all those years, the answer to why the government wasn't stepping up to financially aid the elderly like they did before was painfully obvious, the government cared more about the youths of tomorrow than the elderly of the past. The government in the future scene did not bother to fund the escalating health costs and other benefits that the elderly used to have related to finance. The government simply could not bother enough to their funds to help the elderly because they see more potential in younger people. This might be problematic in 2030 as the government has funds but is not willing to use them for the elderly and it might result in Singaporeans having distrust and dissatisfaction in the government. This could lead to further consequences such as more anti-government movements, black markets, and Singapore would be less stable as a country when the government is seen as an untrustworthy and corrupt. In addition, the PEW research centre has a statistic that only 19% of people in America trust the government most of the time, 74% of most-voted officials put their own interest ahead of their countries and 55% of ordinary Americans think they can do a better job at solving problems. This distrust in the government and unhappiness is very bad for the country's reputation.

STEP 2. Select a Fundamental Problem

Using the challenges listed in Step 1, identify a problem of major importance to the Future Scene situation. Write your Underlying Problem making sure your question clearly explains the action that will be taken and the desired results/goal of that action.

Incorporating Challenge(s) # 2

Underlying Problem: Given the inference we have made that elderly in 2050 are likely to suffer from the potential problems of inability to cope with technology (CONDITION PHRASE), how might we improve the acceptance to technology (KEY VERB PHRASE) of these elderly so that they will be comfortable around technology (PURPOSE) in Singapore in the year 2050 and beyond (FUTURE SCENE PARAMETERS)?

STEP 3. Produce Solution Ideas

Generate solution ideas to the Underlying Problem in Step 2. Choose the 5 most effective solutions and write the elaborated a idea in the space provided. . Include applicable research with appropriate in-text citations.

Solution #1: We, the Ministry of Elderly Welfare(MEW), can work with technological companies [WHO], to organise some activities and programmes to educate the elderly on how to use technology via games and activities[WHAT]. The various events and programmes will not be compulsory but we will specially choose dates such as weekends so as to further encourage the elderly to join us in the programmes. Since we encourage the elderlies to go with their families, we will give families that join our initiative a discount.[HOW]. The programme will let the elderly have fun and learn how to use technology so that they can keep up with the times and carry on with their daily activities like grocery shopping and other errands. The elderly will also be more comfortable with having technology at home[WHY]. This mass event will be conducted at various CCs island-wide[WHERE].We will continue organising these programmes from now and continue updating these programmes to cope with the latest technology.[WHEN]. An article on how to teach elderly how to use tech by Brookdale senior living, recommends a few ways to do so: 1) When introducing new tech concepts, build on existing knowledge. Comparing a new technology concept with something the senior is already familiar with will make it easier for them to understand. When we introduce web browsing in Brookdale's tech programming, we compare web addresses to street addresses. This helps reinforce the idea of web navigation in a way that is intuitive to our residents because they can think of it like navigating a row of buildings. 2)Watch your pace. This may seem obvious, but it's important to remind yourself not to move too quickly when introducing a senior to technology. Pause between each step to give them a moment to process what they've just learned. If you're not sure whether or not you are moving too quickly, ask the senior how they are feeling about the pace.Avoid technical words and use consistent language. Now that words like emoji and selfie have been added to Oxford Dictionary's lexicon, tech speak is becoming a part of everyday language. As you talk tech with seniors, be mindful of the words you use. Many tech-related terms may be unfamiliar to them. When there are multiple terms that can be used to describe something, choose the simplest option and be consistent.

Solution #2: We, the Ministry of Elderly Welfare(MEW)[WHO], will collaborate with the Housing Development Board (HDB) to implement new technology in households with at least one elderly(humans over the age of 65)[WHAT]. The technology, such as non-intrusive motion sensors (not security cameras), smoke detectors, etc. will all be free, but not compulsory in every household with elderlies[HOW]. This implementation will ensure the safety and welfare of the elderly and will also be more comfortable around tech, understanding technology's benefits and accepting it[WHY]. This will be conducted in all new HDB flats and all existing ones island wide[WHERE], we will put this on the table with HDB starting 2020 and will probably start it by 2030.[WHEN] An article by The Online Mom recommends many tech that will help the elderly stay safe in their homes. Firstly, lively Small sensors are placed on objects within the home – such as prescription pill bottles or the refrigerator – to detect when the resident is taking medications, getting food, or leaving the home. Activity signals are sent from the sensors to Lively's website (no Internet or Wifi connection required), where the data is held for family members and caregivers to monitor. Data is also shared via smartphones and email, with notifications on any irregular activity. A printed LivelyGram mailer with photos and messages from family members and friends is automatically created twice a month for the adult in the home. Next, WalkJoy;as our parents grow old, the possibility of a fall is one of the costliest and most difficult risks to manage. Recovering from a fall at an old age is extremely difficult. It can result in a lack of mobility, causing depression and other serious conditions that can put the patient in a downward spiral.WalkJoy is a company that has set out to solve this problem. Its non-invasive technology aids in the restoration of gait and balance for people with peripheral neuropathy. Devices are attached to the knees to re-establish a signal, telling the brain that the heel just struck the ground. The brain's central nervous system incorporates the new signal from the device, and the motor system responds as if there is no loss of sensation in the foot, thereby returning the person to a normal gait.The company also offers a second device, WalkingHealth, that serves as a walking diagnostic tool, helping to reduce falls by those elders suffering from mobility challenges. Due to these features being very effective, we will be including these in our technology

Solution #3: We, the Ministry of Elderly Welfare(MEW)[WHO], will provide incentives for technological businesses in Singapore to include elderly-friendly features in their products from year 2040 [WHAT]. These companies would be funded to create this new elderly friendly technology. An example of these features would include having a mode that displays everything in the elderlies' preferred language. For other automated technology such as vacuum cleaners or CCTVs, they have to go through strict tests including the testing of safety and maintenance of privacy in order to let them sell in Singapore. [HOW]. This will make elderly more willing to accept technology. This initiative will assure the elderly that the technology will not harm them in any way and are even made easier to use for their convenience. The different policies will be set in Singapore and confirmed after further discussion[WHERE]. We will pilot test the policy in certain districts with more elderly and eventually use this technology for healthcare islandwide by 2040 [WHEN].

Firstly, Lumosity. The aging process often affects memory, frustrating seniors who make great efforts to stay mentally active. Keep your mind sharp with this clever memory-improvement app that contains hundreds of games and puzzles. Designed by neuroscientists, Lumosity is proven to benefit memory recall and information retention. Secondly, ClariaZoom. ClariaZoom is a low vision app which permits operators with less than perfect eyesight to zoom in, set higher contrast, and displays larger buttons for easier use. The app simplifies phones that are difficult for older users to navigate and use. Thirdly, Blood Pressure Monitor. The Blood Pressure Monitor app provides statistical information, periodic health reminders, and allows you to export data so you can share it with your personal health-care provider. This tool is a great way for seniors to oversee their health regimen and stay in shape, along with monitoring their health.

Solution #4: We, the Ministry of Elderly Welfare(MEW)[WHO], will work together with the Ministry of Education (MOE) and Housing Development Board (HDB) to show the elderly the benefits of technology and how it is an inevitable and growing platform via interactive lessons.[WHAT] The interactive lessons will be created by designer-teachers and funded by us to help in the production of the lessons.[HOW]. This will be streamed at the atriums of houses under the government or on online platforms. [WHERE] We will start negotiating the cost with MOE and HDB starting now and will probably finish by 2050.[WHEN]. An article by CapTel on the benefits of technology to the elderlies has some info on how to improve our lesson package. Firstly, Fulfillment and independence: One of the obvious reasons to become familiar with all of the innovative technology produced year after year is possessing the ability to obtain massive amounts of information, entertainment and social interaction, all available at your fingertips. The American Association of Retired Persons has reported that seniors who keep up to date with the internet can produce a positive impact on key areas of life. Secondly, Social connectivity: For many seniors, life tends to be a series of extended episodes of isolation, primarily due to being separated with friends and family by long distances. Using email and social networking platforms are a great way to easily stay in touch with those who are the closest to you, and all it takes to speak with someone face to face is a computer, camera and internet access. Sometimes social isolation provokes feelings of loneliness and despair, another emotional aspect that the internet has helped seniors conquer. Researchers from Michigan State University have reported that elderly individuals who spend occasional time online can drastically reduce symptoms of depression, just another example of the vast benefits of new-age technology.

Solution #5: We, the Ministry of Elderly Welfare(MEW)[WHO], will encourage IT businesses in Singapore to develop more elderly-friendly apps or appliances [WHAT]. These businesses would be given monetary rewards when they create approved elderly friendly apps which hit over a certain number of elderly users and a good rating. These apps can be basic communication apps and browsers that are tailor made to suit the elderly by having simplified functions so that the elderly can understand how to use them easily.[HOW]. This will make elderly more willing to accept technology[KVP]. This initiative will allow the elderly to do many things from keeping in touch with their friends to searching up a topic so that these elderly can realise the uses of technology and be more acceptant to it [WHY]. These elderly friendly apps will be accessible from all mobile devices [WHERE]. We hope to be able to start allowing elderly to use these apps for their daily activities by 2020 and target to have a wide variety of these apps installed in elderlies' devices by 2025 [WHEN]. An article on elderly friendly apps by Fox Hill gives us some ideas for our apps. Firstly, Lumosity. The aging process often affects memory, frustrating seniors who make great efforts to stay mentally active. Keep your mind sharp with this clever memory-improvement app that contains hundreds of games and puzzles. Designed by neuroscientists, Lumosity is proven to benefit memory recall and information retention. Secondly, ClariaZoom. ClariaZoom is a low vision app which permits operators with less than perfect eyesight to zoom in, set higher contrast, and displays larger buttons for easier use. The app simplifies phones that are difficult for older users to navigate and use. Thirdly, Blood Pressure Monitor. The Blood Pressure Monitor app provides statistical information, periodic health reminders, and allows you to export data so you can share it with your personal health-care provider. This tool is a great way for seniors to oversee their health regimen and stay in shape, along with monitoring their health.

STEP 4a. Select Criteria

Generate criteria to determine which solution idea does the best job of solving your Underlying Problem and/or addressing the Future Scene situation. Select the 3 most important criteria for measuring solution ideas and write them in the spaces provided.

Criterion #1: Which solution will be the fastest for the elderly to better understand the benefits of technology? The faster the elderly understand technology, the faster they can learn and openly adapt to these devices. The speed at which the seniors do not feel uncomfortable around technology anymore is crucial as it leads to less costs for MEW and it would thus also be the most effective.

Criterion #2: Which solution will be the most acceptable by the elderly so that they will feel comfortable around technology? The elderly will be learning to accept technology via different methods. However, this would require them to fork out time and effort to learn the benefits of technology and thus accept it as part of their lives. We, MEW, would not like to see such a negative side effect that threatens the elderly's welfare.

Criterion #3: Which solution will be the most cost-efficient so that we can cater to as many elderly as possible? We know that many elderly are uncomfortable around technology so our initiatives are island wide. However, if each project is very expensive, the government might not be able to cater to such a large group. Thus, being less expensive also contributes to being an effective solution.

STEP 4b. Apply Criteria

List the solution ideas from Step 3 on the grid. Use each criterion to rank the solutions on a scale from 1 (poorest) to 5 (best). The weighting for one important criterion may be doubled if necessary.

Step 3 Sol'n #	Solution Idea	Criteria			Total
		1	2	3	
#1	Education on technology	3	5	4	12

#2	Installing technology	1	2	2	5
#3	Elderly-Friendly Tech	5	4	5	14
#4	Technology showcases	4	1	3	8
#5	Senior Friendly Applications	2	3	1	6

STEP 5. Develop an Action Plan and Evaluate its Feasibility

Develop your top-scoring solution idea into an Action Plan. Thoroughly explain how the Underlying Problem is solved, how the plan will be implemented, and how the Future Scene will be affected. Explain how this Action Plan is feasible with research consulted.

Writing on the reverse side or in margins will not be scored.

Action Plan derived from Solution #3:

Action Plan:

We, the MEW, will incentivise technological companies in Singapore to produce elderly friendly technology for the elderly.

We will set up a policy after being thoroughly discussed in 2020, to incentivise the companies at different rates for elderly friendly companies from 2030 to 2040 onwards. The rules for companies to qualify for the incentivisation would be the following:

1. A company must be able to charge GST or have a product of \$2000 less than the required amount for GST. This is to ensure the impact will be large and effective to ensure that elderly will buy the technology.
2. For companies that qualify and IMPROVE their already made products into elderly-friendly ones, they can request for % of the EXTRA amount used to MANUFACTURE the product.
3. For companies coming up with brand new elderly-friendly technology, MEW will start providing % of the OVERALL MANUFACTURING cost after it manages to sell 150 products.
4. MEW will have the right to change the ratios and amounts it is willing to contribute as deemed fit depending on the type of product. Such as cars may have a lower incentives than phones.

This will be the policy for half a year, MEW will then make subsequent tweaks to the policy whenever something is not going as planned.

MEW's definition of elderly friendly products:

1. Easier to use (proved in a presentation that must convince MEW officials)
2. Pilot tested on elderly(which MEW will carry out to prevent cheating)
3. Safety tests are conducted.

All technological companies in Singapore will be needed for this action plan as well as the cooperation from citizens. The MEW will get its resources for this policy by donations, current taxes, or even a new type of tax (that will be tabled for discussion during the proposal of our policy). The link to the key verb phrase is that the elderly will be able to use technology with ease by themselves and will naturally feel more at home or familiar with elderly friendly products. Naturally, once we prove that technology can be helpful and that they can have functions to make them easier to use, elderly in Singapore would have more experience with technology and use technology more, making them more likely to accept it. This solution is also very direct as it counters the problem we are facing directly.

Our purpose is to make elderly feel comfortable around technology and this will definitely happen as they can learn and interact with technology more by understanding technology at their level better. They would be able to use technology effectively and will not feel alien towards it. This will thus make them more comfortable around technology.

Bibliography

Cite the resources you consulted using the APA format.

Challenge 1:

by Hara Estroff Marano

Retrieved 12 July 2018

Psychology Today: "The Dangers of Loneliness"

Retrieved from:

<https://www.psychologytoday.com/us/articles/200307/the-dangers-loneliness>

by James E. Brody

Retrieved 12 July 2018

The New York Times: "The Surprising Effects of Loneliness on Health"

Retrieved from:

<https://www.nytimes.com/2017/12/11/well/mind/how-loneliness-affects-our-health.html>

Challenge 2:

Information compiled from:

"Mental Health Letter-Paranoia and Paranoid Disorders". The Harvard Medical School Mental Health Letter. 74 Fenwood Rd, Boston MA 02115.

and Understanding Mental Disorders, Your Guide to DSM-5, American Psychiatric Association, 2015.

Retrieved 12 July 2018

Mental Health America: "Paranoia and Delusional Disorders"

Retrieved from:

<http://www.mentalhealthamerica.net/conditions/paranoia-and-delusional-disorders>

by mind for mental health

Retrieved 12 July 2018

mind for mental health: "Paranoia"

Retrieved from:

<https://www.mind.org.uk/information-support/types-of-mental-health-problems/paranoia/effects-of-paranoia/#safety>

Challenge 3:

by Mayo Clinic Staff

Retrieved 12 July 2018

MAYO CLINIC: Healthy Lifestyle "Stress management"

Retrieved from:

<https://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/stress-symptoms/art-20050987>

Challenge 4:

By Monica Chin, Moneyish

Retrieved 12 July 2018

NEW YORK POST: "1 in 4 Americans refuse medical care because they can't afford it"

Retrieved from:

<https://nypost.com/2017/06/07/1-in-4-americans-refuse-medical-care-because-they-cant-afford-it/>

Challenge 5:

From PEW research center

Retrieved 15 August 2018

PEW Research Center: "Beyond distrust: how americans view their government"

Retrieved from:

<http://www.people-press.org/2015/11/23/beyond-distrust-how-americans-view-their-government/>

Solutions 1:

By Christopher Leech

Retrieved 12 July 2018

Tech Tips: "10 Tips for Teaching Technology to Seniors (Brookdale senior living)"

Retrieved from:

<https://www.brookdale.com/en/brookdale-life/blogs/2017/04/tech-tips-10-tips-for-teaching-technology-to-seniors.html>

Solution 2:

From TheOnlineMom

Retrieved 12 July 2018

TheOnlineMom: "7 Technologies That Can Help Keep the Elderly Safe"

Retrieved from:

<http://www.theonlinemom.com/7-technologies-that-can-help-keep-the-elderly-safe/>

Solution 3:

By Vincent Chang

Retrieved 12 July 2018

The StraitsTimes: "SGIno Simple 3G, a simple and elderly-friendly phone"

Retrieved from:

<https://www.straitstimes.com/tech/smartphones/sgino-simple-3g-a-simple-and-elderly-friendly-phone>

By Dave Oliver

Retrieved 12 July 2018

WIRED: "Simple mobile phones and feature handsets put to the test"

Retrieved from:

<http://www.wired.co.uk/article/super-simple-phones>

Solution 4:

From CapTel

Retrieved 12 July 2018

CapTel: "The benefits of technology usage for seniors"

Retrieved from:

<http://www.captel.com/2014/05/benefits-technology-usage-seniors/>

Solution 5:

From FoxHill

Retrieved 12 July 2018

FoxHill: "18 Unexpectedly Innovative Apps for Seniors"

Retrieved from:

<https://foxhillresidences.com/18-unexpectedly-innovative-apps-seniors/>