

**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:**

**The future scene states that the elderlies are so used to being alone at home that she feels irritated when her children came to visit her. This could be problematic in 2030 as if this trend persists, the elderly could lose their communication and social skills, leading to more social isolation.**

**Research:**

- According to Hawthorne, G, PhD in psychology (2008), social isolation—the absence of social relationships—is typically considered unhealthy when people spend excessive time alone, particularly when they no longer benefit from time spent alone. Socially isolating oneself can mean staying home for days, not talking with friends or acquaintances, and generally avoiding contact with other people.
- According to Alexis Blue, from the University of Communication, Poor Social Skills May Be Harmful to Mental and Physical Health. Poor social skills often lead to stress and loneliness, which can negatively affect physical as well as mental health. ... "We've known for a long time that social skills are associated with mental health problems like depression and anxiety,"

**Challenge #2:**

**The future scene states that more elderlies are suffering from dementia and degeneration of the brain due to being cooped up at home. This could be problematic in 2030 because if this trend persists, it may lead more complicated healthcare issues, resulting in a drastic increase in healthcare costs.**

**Research:**

- According to Mr Heng Swee Keat, the minister of finance predicted an annual MOH budget of "at least" \$13 billion from 2020 due the growing demand of better medical technologies.
- According to the Aon report, Singapore's Aon medical inflation index (AMII) is 95.1 higher than most countries, including China, South Korea and Philippines.
- According to the ministry of health, between 2011 and 2016, Singapore's average annual healthcare inflation rate was 2.4% compared to the OECD average of 1.6%, which will continue to increase in the span of 30 years

**Challenge #3:**

The future scene states that monitoring devices are used to monitor the behavior of the elderly, making sure the elderly would be. This could be problematic in 2030 as if this trend persists, the society would be too dependent on technology, resulting in lesser face to face interaction between people

**Research:**

- According to a research conducted by Elon university, it shows that out of the 100 students that were surveyed, 46% of them communicate more frequently with friends and family via technology than in person, indicating strongly that face-to-face interactions have decreased both in quality and quantity
- According to Sir Victor, the former chairman of Lloyds TSB, acknowledged that technology is a massive aid to communication, however it takes away regular face-to-face or direct conversations, which is vital to keep relationship alive.
- In a recent Ted Talk (What make a good life), psychiatrist Robert Waldinger discussed the findings of a 75 year study on adult development at Harvard University, which concludes that we will grow increasingly more reliant on technology for social interaction and the amount of time spent physically with other people will also be reduced.

**Challenge #4:**

The future scene states that tax rate would increase due to the shrinking workforce. This could be problematic in 2030 because if this trend persists, more young adults would feel financially burdened or stretched, leading to some taking up several jobs just to sustain the family, which could result in a generation of working adults spending lesser time with their family.

**Research:**

- According to strait times, a recent survey conducted by a group of students from NUS, one in 10 of the 700 respondents spend six hours or fewer with their immediate families a week, and about half of the respondents spend over 36 hours a week (or about five hours daily) with immediate family members.
- According to strait times, there is a growing number of Singaporeans with those aged 65 and above forming 11.7 percent of the citizen population this year, up from 7.8 per cent in 2002.
- This year's Population in Brief report also showed that the old-age support ratio - which is the number of citizens in the working age band of 20 to 64 needed to support one older citizen - is decreasing rapidly.

**Challenge #5:**

The future scene states that there is a big strain on healthcare services and facilities which are caused by long queues and so on. This could be problematic in 2030 because if this trend persists, more elderly are unable to seek medical treatment due to inadequate provision of healthcare, leading to more elderly being vulnerable to diseases and ailments.

**Research:**

- By 2030, it is projected that more than 60% of this generation will be managing more than 1 chronic condition.
- The cost increases with the number of chronic conditions being treated, taking into account the expected twice as many hospital admissions and physician visits for Baby Boomers by 2030
- There are also certain diseases more likely to be suffered by people in older generations, including ones linked to being overweight such as diabetes. The above chart shows how the proportion of people suffering the illness increased with age in 2012.
- With the increased demands that an older population will place on healthcare, it seems that planning will be needed to make sure these demand can be met.

**Deadline for Submission: 16 August 2018**

**Group ID: \_\_10-38\_\_**

**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) # \_\_\_\_\_1,3,4\_\_\_\_\_

**Underlying Problem:**

Given the inference that we have made that the community in 2030 have a perception of elderly being a burden, how might we **increase communication between the younger generation and the older generation** such that we can foster an empathetic society that embraces healthy and active aging in the year 2030 and beyond?

**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 ideas in the space provided. . Include applicable research with appropriate in-text citations.

**Solution #1:**

We, Elder Cafe, a social enterprise cafe where there is collaboration between robots, the young and older generation to run the cafe. The ratio of elderly working to young will be 7:3. The cafe makes use of high-tech robots which will help deliver the food items to people's homes using a drone system or even to aid the working elderly who are physically challenged. Elderlies working here get to interact with their fellow colleagues who are of a younger generation by creating new recipes for the cafe or even just by working with each other. At the same time, they can earn some money to support themselves. This Elder Cafe would be built near all community centres island-wide by 2034

**Research:**

- By interacting with and learning from youth, they can have a better grasp of new technologies and expand skills they already have.
- Seniors can also mentor younger people, which can give the senior a sense of purpose and accomplishment.
- URL: <https://www.bethesdahealth.org/importance-connecting-young-people-seniors/>
- Laura Carstensen, Stanford psychology professor said, "Older adults are exceptionally suited to meet these needs in part because they welcome meaningful, productive activity and engagement. They seek – and need – purpose in their lives."

**Solution #2:**

We, the Exercise Activist Group, plans to partner with the Housing Development Board to send our staffs and volunteers to the residences of the elderlies to conduct an interactive exercise program with the elderly on a weekly basis. This will promote healthy ageing in Singapore and will help to ensure that the elderly will have an adequate amount of exercise. This initiative will be tabled for parliamentary discussion and launched island-wide by 2030.

**Research:**

- To encourage seniors to stay active, the Health Promotion Board (HPB) launched its second exercise campaign, "You Can Get Moving", to reach out to seniors aged 50 years and above, including those with reduced mobility, to do 7 Sit-Down Exercises that help to build strength, improve balance and flexibility\*
- The national movement for sports, ActiveSG, wants to get more elderly folk to exercise regularly and grow the proportion of those aged above 55 years old who are members under the movement.

**Solution #3:**

We, the Eldertech company, will work with the Housing Development Board (HDB) to sponsor virtual reality headsets to multi-generation households, where the elderly can play multiplayer games with the younger generation which will help increase their interaction with one another. Both parties have to have teamwork and this also increases communication between the elderlies and the grandchildren. This initiative will be tabled for parliamentary discussion and launched island-wide by 2030.

**Research:**

- One way to promote socialization by incorporating group virtual reality in nursing homes. Several people can put on different VR headsets and travel across the world or participate in events together.
- It makes it easier to socialize because participants don't have to directly see the person they're interacting with, but at the same time still bond over a shared experience – similar to talking to someone online without seeing their face.
- URL: <https://www.pnrfunding.com/virtual-reality-for-the-elderly>
- The software syncs headsets together, so users can join together in a virtual world, visiting childhood homes, exotic locales, sports games, or a relative's wedding across the world.
- URL: <http://health21initiative.org/virtual-reality-provides-cognitive-therapy/>

**Solution #4:**

We, the ExO INC. company, would manufacture the Exosuit that is specially designed for elderlies with mobility issues, so that they have a chance to participate in sports activities with the young and old. This could increase communication between the elderlies and the youth when they play sports together like basketball, which will also enhance their physical health. The first prototypes of the exosuits would be introduced to the elderly society by 2030

**Research:**

- “For an elderly or general population with reduced mobility due to injury or disease, [the suit] could restore mobility and independence and therefore increase the quality of life,” says Volker Bartenbach
- Researchers in Italy and Switzerland have developed a prototype device can detect a disruption in the pace of walking, most likely due to a trip and help its wearer avoid falling. If perfected, a system like this could one day help millions of elderly people and amputees maintain balance and avoid serious tumbles

**Solution #5:**

We, the ElderBike Company, will partner with the Land Transport Authority (LTA) to push out 2 seated bicycle that are specially designed with technologies that can maintain its own balance and is easier to manoeuvre. This bicycle can be only be unlocked when an elderly and a youth cycle together. This form of activity will increase communication with the young and the elderly and also promote healthy aging at the same time. These bicycles will only be initiated in safer places like parks in 2030.

**Research:**

- According to a blog post written by Samford university student Kathryn Harroff, Sporting events provide a much longer and more lasting communication strategy. Not only does it happen during the event, but also many people will talk about their experience for days to come.
- Regular cardiovascular exercise, such as brisk walking, cycling or light housework – anything that raises the heart rate - will increase blood flow to the heart and boost your overall health.
- Being sedentary in later years can increase the risk of developing dementia, according to a recent study published in the Journal of Alzheimer’s Disease. The study, which analysed more than 1,600 older adults over five years, found that those who did not exercise were more likely to develop dementia than those who



**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 is the most sustainable in the long term for the elderlies, such that the problem of elderlies not interacting enough with the younger generation will not be a permanent problem?

**Criterion #2:**  
Which solution most promotes physical interaction between the elderlies and the younger generation, such that the problem of isolation would be resolved as quickly as possible?

**Criterion #3:**  
Which solution requires the least manpower for the Government of Singapore so as to ensure that the burden on society will not be too big as a result of carrying out the initiatives?

**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	Design a social enterprise café that involved the collaboration of the robots, the younger and older generation	5	4	3	12
#2	Send exercise trainers to the residence of elderlies on a weekly basis	1	3	1	4
#3	Sponsor virtual reality headsets to every multi-generation household	4	1	5	10
#4	Invent an EXO suit that allow the disabled elderlies to play sports	2	2	4	8
#5	Invent a 2-seated bicycle that are specially designed and only activated when elderly and youth cycle together	3	5	2	10

**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 # \_\_1\_\_:**

## **Action Plan**

### **What?**

Eldercare is a social enterprise cafe where elderly and the younger generation collaborate with one another to help run a cafe that is specially designed to suit the needs and profile of both the young and old. There is shared ownership in the daily running of the business, such as the design of the food menu. The collaborative effort between both groups increases communication and interaction between the elderly and the younger generation, by tapping into the interests, expertise and experiences of both young and old.

### **Why?**

Through working with one another, the chances of the elderly communicating with the younger generation is increased and therefore bridges the generation gap. Moreover, the cafe can attract elderly to get out of their house and to socialize with the people at the cafe, young or old, inducing interaction.

Research:

- For seniors, developing various positive sources of social support also can reduce stress, ward off anxiety and depression, and reduce the risk of some physical health concerns.
- One study found that cognitive abilities declined 70 percent more slowly in individuals who had frequent social connections compared to those who had little social contact with others.
- Socialization may improve memory and longevity as it reduces stress and isolation.

Adapted from Livestrong.com

### **How?**

We will work with the Ministry of Manpower to ensure that the elderly who have been replaced by technology can have a place to go to, where they can contribute to the work force, so that they are meaningfully engaged and occupied. Their work at Eldercare could provide a source of income for them. Some elderly may choose to serve as volunteers at the Eldercare. We will also work with the Youth Executive Committees at the Community Centres to recruit a fair number of youth volunteers to support the running of the Eldercare.

### **When?**

**(Action Plan Continued)**

## Who?

Mainly elderlies aged 65 or above (that are retired)  
Young dedicated workers and volunteers

## Assistors

### Government Subsidies

The government can set aside a sum of funds to subsidise the total cost of the Eldercafe so that it will be able more sustainable in the long run.

#### Research:

- There are government agencies that help new businesses grow in Singapore, such as the Economic Development Board, Enterprise Singapore, Accounting and Corporate Regulatory Authority and SMEPortal.
- They could subsidise the cost of the production of a good or service by offering tax credits or reimbursements or by paying for part of the cost a consumer would pay to purchase a good or service.

Adapted from: <https://www.mom.gov.sg/working-in-singapore/starting-a-business>

### Childcare centres

As an additional monthly special or feature, we can partner with the neighbourhood's childcare centres so that the children can pay visits to the cafes to interact with the elderly there. Moreover, the elderly and youths can organise fun art and craft activities once a month, when the children visit the cafes.

#### Research:

- Mr Don Tan, centre manager and senior social worker at Tsao Foundation's Hua Mei, said: "Elders are generally more happy when there are kids around - the latter's spontaneity and energy is almost infectious.
- MacPherson MP Tin Pei Ling said that, "It ensures that the two generations don't just miss each other, but learn to understand each other and bridge that generation gap."

Adapted from: <https://www.tnp.sg/news/singapore/nursing-home-ageing-well-help-kids>

## Resistors

### More stiff competition

There are many other eateries and food social enterprises that may cause stiff competition in the cafe industry. This could potentially affect our business, causing it to shut down.

## Research

- According to CNBC, soaring rents and food costs, alongside labor shortages and stiff competition, have proved to be a tough wakeup call.
- According to figures from Singapore's Accounting and Corporate Regulatory Authority, nearly half of the 369 cafes that opened shop in 2011 have since pulled down the shutters. Of the 391 which registered last year, almost 100 have exited the market.

Adapted from: <https://www.cnbc.com/2015/05/26/singapores-cafe-wave-not-a-smooth-ride-for-entrepreneurs.html>

## High cost of rental, equipment and management

- Rental fees in Singapore is soaring high
- Equipments such as espresso machines are also very expensive
- A cafes that serve a proper food menu, the kitchen requires at least two to three chefs/cooks to function.

## Research

- Top range espresso machines – such as Synesso, Slayer and La Marzocco – and they cost around S\$25,000 to S\$30,000 each.
- For areas near the central business district such as Duxton Road and Tanjong Pagar, is around S\$10,000 to S\$15,000, while it can go as high as S\$30,000/month for a 2,500 unit.

Adapted from: <http://www.ladyironchef.com/2015/01/how-much-it-costs-to-open-cafe/>

## How do we solve the problem?

### Regarding stiff competition

- Partner with various media companies to advertise the benefits of Eldercafe so as to attract customers and inspire people to work here
- Make use of various social media platform like facebook, instagram and television to advertise our business
- Change the type of activities held at the cafe so as to attract people to the cafe. Partner with the community centre to place flyers around the neighbourhood to increase awareness of the cafe in the neighbourhood.

### Regarding the high cost

- Employ a group of experts in the field of communication, marketing and sales so that they are able to keep the business running profitably
- Attracting more private investors to fund the business so that it will be able to sustain

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