

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 elderly will suffer from a lack of jobs due to the development of many robots designed to do their various jobs better, faster, and much more efficiently. This could be a problem in the future with the large amount of progress being made in researching and creating of robots, this scenario has a very high probability of happening. In the long run, the lack of jobs for elderly will cause many elderly who have no children to be unable to feed themselves and pay bills.

Challenge #2: The future scene states that drones are taking over markets and there being no need to interact with others physically. This could be a problem as without proper interaction with others, many elderly might suffer from loneliness and isolation. This can be detrimental and might most probably harm their mental health in the long run.

Challenge #3: The future scene states that there is a rise of many healthcare issues, such as the lack of healthcare facilities. This could be a problem as if elderly do not have enough healthcare facilities, they might not be properly be taken of. In the long run, this might cause many elderly to suffer from health complications due to the onset of many diseases not being properly treated and cured at the early stages which causes it to snowball.

Challenge #4: The future scene states that elderly are overly cynical towards efforts made to help them and are resistant to change. This could be a problem as if the elderly are unable to be reached, they might not receive proper care and help when they suffer from an injury at home. In the long run, this might cause a spike in the mortality rate as elderly might suffer from severe injuries at home that cannot be treated quickly as no one will know about it and the elderly might pass away.

Challenge #5: The future scene states that there are elderlies and their families are struggling with many monetary issues. This could be a problem as the children of many elderly are already struggling with their own living expenses and with the increasing taxes and skyrocketing prices of healthcare items, they will struggle with the prices due to their meagre salaries. This will eventually result elderly might also not be able to obtain healthcare items, causing their health to deteriorate in the foreseeable future.

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 and 3_____

Underlying Problem: Seeing how there is a lack of sufficient healthcare facilities and workers, how might we improve the quality of healthcare for the elderly so that they will not fall victim to mental and physical illnesses and diseases easily in the year 2040 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: ROGUE Programme - Most Original Solution

In order to encourage elderly to step out of their houses and go down to healthcare centres and facilities, ROGUE Programme can be introduced to help persuade them to visit healthcare centres for their wellbeing. The ROGUE Programme is kick-started by enthusiastic elderly and adults that will oversee the programme. As most elderlies shun strangers who offer assistance to them, elderly recruits will be ideal as they can call their friends to encourage them to take part in the ROGUE Programme. As more and more people start to take part in this programme, healthcare facilities will no long be abandoned, as elderly will attend more health check-ups to keep their health in top shape.

Solution #2: Human-Friendly Robots - Most Researched Solution

In order to improve human interaction that elderly receive, interactive robots can help with chores or tasks that the elderly need to do can be introduced. This robot will be programmed to mimic a human as much as possible to interact with the elderly. As seen in our Most Researched Challenge, a lot of elderlies suffer from dementia, Alzheimer's and other mental diseases. Age UK states that more than 2 million people in England over the age of 75 live alone, and more than a million older people say they go for over a month without speaking to a friend, neighbour or family neighbour. This leads to loneliness, thus human interaction is for the elderly, which can be provided through the human-friendly robots.

Solution #3: Digital Wristbands

In order to check how frequently elderly visit the hospital for medical check-ups, we will implement the idea to give every citizen aged 65 and above a digital wristband that can pinpoint the exact date of each visit- the elderly have to tap their wristbands when they enter the hospital. These wristbands will be able to monitor how often the elderly visit the hospital for checkups, and make sure that the elderly go for regular checkups. If it is detected that the elderly are not going for regular health checks, the wristband will notify and ask them why they have not been doing so, and encourage them to go for their checkups. Cardiologist Seth Martin, M.D., M.H.S says that “Many people who have high cholesterol die from complications of heart disease before reaching an advanced age”. Therefore, regular health checks are important to find out about diseases before its effects take place. These wristbands will enable the elderly to go for health checks frequently and prevent or take action in its early stages.

Solution #4: Elderly Specialised Housing Blocks

In order to increase human interaction and improve safety among elderly, housing blocks can be specially allocated to elderly above 65 years old. Elderly Specialised Housing Blocks will enable the elderly to interact with each other, as staying near each other makes it easier to organise activities, or just for them to mingle and chat with each other. This also makes it safer for elderly, as elderly that live alone are more prone to home incidents, due to there not being anyone to check on them. In these blocks, elderly will check on each other and ensure everyone’s safety, decreasing the chances of any dangerous incidents occurring around the area. These blocks will also be lower in price in order for elderly to be able to afford them, as many elderly have little to no income.

Solution #5: Using a smartcard

In order to help elderly manage their funds and pay more conveniently, elderly can be each given a Smartcard. The Smartcard is given out and controlled by the Ministry of Elderly Welfare, and is directly connected to the elderly's bank account and CPF account. This card can be used at stores hawker centres or with taxis. The purpose of this card is to ensure the elderly spend their money wisely, as many elderly, especially those with dementia and mental illnesses, do not know how to manage funds properly and may end up spending all their money in a short period of time, causing them to waste all their savings. The cards limit each elderly to a certain amount of spending in a day and in a week, thus making sure that the elderly uses their money wisely and thriftily, if they do not have much funds.

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 of our following solutions will be the most feasible for the elderlies so that it can be possible for the elderly to be less likely to fall victim to mental and physical illnesses and diseases easily?

Criterion #2: Which of our following solutions will be the most cost-efficient for the elderlies so that they can afford healthcare and will not fall victim to mental and physical illnesses and diseases easily?

Criterion #3: Which of our following solutions will be the most eco-friendly for the elderlies so that it does not harm our environment while the elderly do not fall victim to mental and physical illnesses and diseases easily?

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 | ROGUE Programme | 3 | 3 | 5 | 11 |
| #2 | Human Friendly Robots | 1 | 2 | 1 | 4 |
| #3 | Digital Wristband | 5 | 4 | 3 | 12 |
| #4 | Elderly Specialised Housing Blocks | 4 | 1 | 4 | 9 |
| #5 | Using a Smartcard | 2 | 5 | 2 | 9 |

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_: Our plan will enhance the quality of healthcare for the elderly by introducing the smart digital wristbands with many different functions such as the meet-up initiative app which is used to increase face to face meetings with perks if one goes out of their house to go to a checkpoint which may result in the elderly making new friends at the same checkpoint playing or not playing the game, the secure door app keeps the mostly defenseless elderlies at home safe from any thieves or robbers and the healthcare app reminds the elderlies to go for regular medical checkups should it be detected that they have not. Our plan will contribute in helping the elderlies mental and physical health. Our meetup initiative app help the elderly have more physical interaction with their friends or even others to make new friends. This prevents them from being too lonely which will eventually lead to the degeneration of the brain, improving and boosting their mental health. The secure door button keeps the elderlies safe from any physical harm that are resulted from break-ins or robberies. The healthcare app will also keep them healthy physically as elderlies be reminded and advised to attend health checkups according to their heart rates measured by the wristband, the wristband will also alert the family members of the elderly and a nearby healthcare centre if the elderlies do not want to get up and moving to nearby healthcare centres. This research and the development of the wristband will begin on 2020, and by 2025, prototypes will be released for public testing. It will be fully launched in 2030. However, one primary obstacle is some overly cynical elderlies that are unwilling to make use of this wristband. We think that the best way to solve this obstacle is to have the elderly encourage each other as while elderly might not trust random kind hearted strangers, they will most probably trust their friends. We have decided to have enthusiastic elderly persuade their elderly friends to start using these wristbands, and over time, more and more elderly will start to follow suit and use these smart digital wristbands. Opposers to this action plan will come largely from private companies in the elder care industry. The longevity economy is expected to top \$13.5 trillion by 2032 in the USA (Oxford Economics). The introduction of these wristbands will cause a sharp drop in the overall income for the private companies.

(Action Plan Continued)

The supporters of our action plan will likely be the descendants of those elderly that have physical and mental illnesses as this allows them to be less worried about the safety of their parents. We think that our plan is humane as these wristbands are eco-friendly. These wristbands will be largely made of recycled rubber, as tree-derived rubber is friendly to the environment. Harvesting and using latex has less impact on the environment, in fact, it has been found that the Para rubber tree is an ecologically sustainable crop and actually contributes to the maintenance of the global carbon balance in the atmosphere. This way, elderlies will have a much more convenient life with these wristbands and an active lifestyle when they go out to meet their friends with the meet-up initiative button. Families need not be concerned and overly stressed over their elderlies safety and healthcare.

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Cite the resources you consulted using the APA format.

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