Deadline for Submission: 16 August 2018 Group ID: 10-29

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:

In the futuristic scenario, the younger generation do not listen to and give the elderly what they want. For example, Mdm Lee told Jason that she did not want the 'Elderwatch Sensor' in the house but to no avail. She felt that 'youngsters did not know how to listen to their parents'. This will, in the long run, cause the elder generation to despise the new 'technological benefits' even more and will be unwilling to cooperate with future products and gadgets which may ultimately be beneficial to them. Hence, I feel that youngsters should adapt to their parents' choice of living in the future to keep them healthy and satisfied. If the elderly does not wish to have these electronic devices in their houses, then we, the younger generation must cooperate to give them a home that will suit their needs.

Research: According to The International Caregiver, it is important to speak to the elderly in a non-threatening way so that they feel their needs, desires, wants and feelings are being respected to allow them to choose what they think is best for their daily lives at home. We should allow elders to take an active role in making choices

Challenge #2:

In the futuristic scenario, the elderly face constant loneliness as in the scenario it states, "And now that Jason is here, she still feels mildly irritated by the interruption to her routine. Maybe she is too used to being alone."

The elderly is used to the feeling of it and they do not need to interact with others physically anymore as supported in the scenario that, "With the replacement of markets and cafes with drone deliveries, there really is no need to interact physically with others."

Therefore, this would affect their social lives for the worst as they do not need and have people by their sides.

Research: According to Survey of Social Isolation Health and Lifestyle, a slide titled: Why is loneliness important? states that "Social relationships, or the relative lack thereof, constitute a major risk factor for health - rivalling the effect of well-established health risk factors such as cigarette smoking, blood pressure, blood lipids, obesity, and physical activity. (House, Landis, and Umberson; Science, 1988)"

Challenge #3:

In the futuristic scenario, it is seen that with the growing elderly population, there is a shrinking workforce but the younger generation having to bear a heavier burden of higher taxes to support the older ones. In the scenario, Jason was not satisfied with the government policies where there were higher tax rates because of the higher population of seniors, and the bills for operating the sensor systems were extremely high, which then puts a heavier burden on working adults like Jason. Jason was also unhappy with the fact that he had written numerous letters to the member of Parliament for an explanation, but it seemed that the government cared more about the youths of tomorrow than the elderly of the past. Without proper attention from the government, the problem of ageing population cannot be properly tackled.

Research: By 2030, our country is expected to have only 2.3 citizens of working age per older adult. Today, households tend to be much smaller. Many families may have just one or two children. This means that when the parents become older, the responsibility of caring for them would fall on the shoulders of just the one or two children.

Challenge #4:

From the Futuristic Scene, The Moonbucks Coffee advertisement further heightened the importance of the need of improved geriatric care. Elderwatch Senior neither was helping elderly's own welfare even though physical health is monitored. Geriatric care services that target elderly emotion and welfare must be considered, as shown by Mdm Lee's dissatisfaction towards the robots. With the elderly unhappy and lonely at home, these monotonous robotic monitors do no better than a physical nurse, which is cheaper and does not need constant maintenance.

Research: According to an article titled "Who would want to be cared by a robot?" written by Michele Hanson a columnist from the Guardian. "Any elderly human with half a brain left will realise that robots don't care about them," says Fielding, an elderly woman who commented on MiRo, a robot by Sebastian Conran Associates, is a "biomimetic companion robot" dog that will transmit news of any problems to a hub. Many of the elderly who tested MiRo were devastated by the startling sudden and creepy actions of the robot, such as them being carried out of bed unwillingly and even being consistently followed around.

Challenge #5:

From the Futuristic Scene, Mdm Lee stated that she was uncomfortable with the "Elderwatch Sensor" monitoring her at home. A problem that might occur is that these new machines/robots that are supposed to bring convenience to the elderly are not welcomed by people like Mdm Lee, and they might have to be removed from the elderly. The government might then have to look for other ways to take care of the elderly, and most of these methods take a toll on the financial resources and the quickly shrinking workforce population of Singapore.

Research: According to a study done by Claes and colleagues, that study investigated older adults' beliefs regarding contactless sensors. These sensors enable tracking of older adults' personal safety, health status and activities of daily living. According to the vast majority of the participants in this study, although it was proven that contactless sensors were useful for ageing to take place, only 15.5% of the participants were willing to accept contactless monitoring in their lives. This shows that despite the vast benefits technology can bring towards the elderly, they are still not very open to it.

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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.

Underlying Problem:
Given that our group has identified Mdm Lee's dissatisfaction and frustration towards the Elderwatch Sensor(condition), how can we improve the moral welfares of the elderly (key verbs) so that they can live their golden years happily in Singapore(purpose) in the year 2050 and beyond?(future parameters)

Deadline for Submission: 16 August 2018 Group ID: <u>10-29</u> 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:

Solution #2:

We, the Ministry of Geriatric Care, will work with the government to organise fortnightly family outings with children and their elderly parents for a trip around Singapore, and to all elderly (above 65 years old). This can allow elderly to bond with their children and give other elderly the opportunity to have a fun time. This allows the elderly to be less lonely. For elderly with children, they can also be happy as they can enjoy their golden years with the accompaniment of their children. We aim to have this plan to be in action by the year 2040 for its testing stage, and with a full implementation of this after collecting feedback by the year 2048.

Research: Based on an article by CARE2 HEALTHY LIVING, "Older individuals can have a difficult time staying busy and active, especially if they are retired and living_alone. For some, leading a mostly solitary life can result in less of an incentive to keep a residence tidy, cook decent meals, and engage in self-care. A lack of interest in these activities can also be a sign of depression, or there may be other factors at work. For example, if an elder has mobility issues or painful arthritis in her hands, then she is unlikely to do her physical therapy exercises, gardening, ironing, or baking without some help." Therefore, they need companions.

Solution #3:

We, the Ministry of Social Welfare, will aim to implement more elderly-friendly facilities in public areas/public facilities. This way, the elderly would be more attracted to visit public places like hawker centres, libraries etc. When they visit these places more often, they can have more face-to-face interaction with their friends that might come along with them, therefore they will be less lonely. We aim to implement this in all public facilities in Singapore by 2048.

Research: According to a Straits Times Article, dated December 31, 2017, new elderly-friendly features have been implemented into the newly renovated Bukit Merah View Food Centre and Market. These include wider walkways and accessibility ramps. To the elderly, this means a much easier trip to and from from their homes to the market. Other facilities also include barrier-free access, wider ramps, and slip-resistant flooring. These facilities are all put in place so that a larger group of elderly can patronise the market more frequently, and in my opinion, one way that the elderly would not be so cooped up in their homes and bothered by robots.

Solution #4:

We, the Ministry of Geriatric Care, will work with the government, to implement a policy for home of elderly to be within 500m of children's homes, or their workplace. This will encourage the younger/working generation to visit their parents more often. Even when they are tired from work, they still can have the opportunity to visit or rest at their parents' home, thus boosting face-to-face interaction and their parents could rely on them more often. This policy will be enforced island-wide and will be tabled for Parliament discussion by 2030.

Research: Results from a study recorded in the book "Journal of Transport Geography", published in December 2015, Volume 49, pages 76-84 concluded that distance from parent's home and children's home and commuting time significantly constrain frequency of face-to-face contact.

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Solution #5:

We, the Ministry of Animals, will work with the Ministry of Geriatric Care and SPCA to have elderlies that are living alone in their homes to have a permanent pet (dog, cat etc). This will allow the elderly to be less lonely, and for the old-aged who love animals and want to rear them, this would be a perfect opportunity for them to have one. Although this solution does not concern a human, it still can make the elderly's life an enjoyable one as he/she at least has a companion.

Research: Based on an article by CARE2 HEALTHY LIVING, "Older individuals can have a difficult time staying busy and active, especially if they are retired and living alone. For some, leading a mostly solitary life can result in less of an incentive to keep a residence tidy, cook decent meals, and engage in self-care. A lack of interest in these activities can also be a sign of depression, or there may be other factors at work. Therefore, they need companions such as animals to accompany them.

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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 cost-efficient for the government and the Silver Generation Office so that maximum productivity could be achieved to improve the elderly's welfare?

Criterion #2:

Which solution would be the most convenient for the families of the elderly such that the elderly will not be a hindrance to the younger generation's lives?

Criterion #3:

Which solution would be the most accepted among the elderly such that they do not feel any form of insecurity or discomfort when the solution is implemented?

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		(Criteria	1	
Sol'n #	Solution Idea	1	2	3	Total
#1	Silver Generation Office workers to offer their Humanitarian Services i.e. doctors to check on elderly mental and physical health	1	4	2	7
#2	Activities for family members to spend time together	4	1	4	9
#3	More elderly-friendly facilities in public areas/estate	2	3	3	8
#4	Policy for parents' homes to be 500m of workplace or children's homes	3	2	5	10
#5	An animal to accompany elderly	5	5	1	11

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.

Action Plan derived from Solution #_5 :

By 2048, this solution will be implemented by the Silver Generation Office in this process:

It can collaborate with the Housing Development Board to check on elderly living alone (i.e. in single-room flats or when their children are out at work), and some of its employees could conduct a survey on them if they liked animals and want to adopt one. If they are willing to adopt one, the Silver Generation Office will also collaborate with the SPCA to let an elderly take care of it. Some animals that can be used are dogs and cats. Furthermore, if the elderly is willing, a professionally trained member of the Silver Generation Office will come and take care of the animal once/twice a week. Such activities include washing the animal, walking it out with the elderly and ensuring that the animal is well-treated, and the owner is not abusing/ neglecting it. The Silver Generation Office member can also ask the elderly whether they are less lonely now as compared to before.

Also, according to an article by CARE2 HEALTHY LIVING, "Older individuals can have a difficult time staying busy and active, especially if they are retired and living alone. For some, leading a mostly solitary life can result in less of an incentive to keep a residence tidy, cook decent meals, and engage in self-care. A lack of interest in these activities can also be a sign of depression, or there may be other factors at work. Therefore, they need companions such as animals to accompany them.

Also, according to a study done in 2014, Psychiatrists at the University of Rochester Medical Centre examined 830 primary care patients over age 60, and their main aim is to determine if social-connectedness, especially pet ownership, could promote health and well-being in senior citizens. In other words, would owning a pet decrease an elderly person's loneliness and improve their health. Results have shown that the group most likely to report feelings of loneliness was those living alone without a pet. When the psychiatrists adjusted for living status (alone or not alone), age, and happy mood, they found those living with pets were 36% less likely than non-pet

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

(Action Plan Continued)

Thus we have that through the introduction of animals into the elderly's

Bibliography

Cite the resources you consulted using the APA format.

List of References:

- House, Landis, and Umberson(1988); Science.(not stated)
- Shelly Webb(2015). Ethics and the Elderly: Treating the Aged With Respect and Dignity[On-Line]. Available:

http://www.intentionalcaregiver.com/ethics-and-the-elderly-treating-the-aged-with-respect-and-dignit y/ (26 May 2018)

 The Guardian(2017). More than 70% of US fears robots taking over our lives, survey finds[On-Line].

Available: HYPERLINK

"https://www.theguardian.com/technology/2017/oct/04/robots-artificial-intelligence-machines-us-surv ey"

https://www.theguardian.com/technology/2017/oct/04/robots-artificial-intelligence-machines-us-survey (15 June 2018)

- Sebastiaan Peek(2017). Understanding technology acceptance by older adults who are aging in place: a dynamic perspective. Tilburg: Tilburg University
- Ho, T. (2018, May 12). Singapore's Ageing Population: The Financial Implications Of Our Country Growing Old. Retrieved from https://dollarsandsense.sg/singapores-ageing-population-financial-implications-country-growing-old/.
- Kendrick Smith. (2017). Why companionship is important for the elderly[On-Line]. Available: http://www.cpscare.net/why-companionship-is-important-for-the-elderly (3 June 2018)
- · Life Advancer. (2017). 6 Reasons Spending Time with Family is Important[On-Line]

Available: https://www.lifeadvancer.com/spending-time-with-family (4 June 2018)

- Aaron Smith(2017). Americans' attitudes toward robot caregivers[On-Line]. Available: http://www.pewinternet.org/2017/10/04/americans-attitudes-toward-robot-caregivers/ (15 June 2018)
- The Straits Times(2017). Seniors cheer elderly-friendly features in renovated Bukit Merah market[On-Line].

Available: HYPERLINK

"https://www.straitstimes.com/singapore/seniors-cheer-elderly-friendly-features-in-renovated-bukit-merah-market"

https://www.straitstimes.com/singapore/seniors-cheer-elderly-friendly-features-in-renovated-bukit-merah-market(6 June 2018)

- O. Rubin(2015). Contact between parents and adult children: The role of time constraints, commuting and automobility in Frank Witlox.(Ed.). Journal of Transport Geography. Britain: Transport Geography Research Group of the Royal Geographical Society and the Institute of British Geographers
- E.Ward(2015). Pets Help Cure Loneliness in seniors [On-Line]. Available: http://www.pethealthnetwork.com/news-blogs/a-vets-life/pets-help-cure-loneliness-seniors (8 August 2018)