Future Trends Written Report

Organisation studied: Silver Infocomm

STEP 1: Identifying challenges

Challenge #1: Loneliness

In 2030, communication using technology will be even more common than in the present and when elderly do not know how to use mobile devices or technology well, it will be hard for them to communicate with others and will feel lonely when they are unable to communicate with each other. The proportion of older adults (aged 60 years and over) in the population living alone is currently about 8%, and is projected to increase to 19% by 2030, according to the Singapore Ministry of Health. In Singapore, the number of seniors (aged 65 years and above) living alone has tripled from 14.5 thousand in 2000 to 42.1 thousand in 2014, and that number is expected to double to 83 thousand by 2030, according to the Ministry for Community Development, Youth and Sports

Challenge #2: Elderly do not know about the available technology

Many elderly do not know about technological services available to them, and with technology advancing further, those elderly will not be able to keep up with society. According to Singapore's Digital Government Blueprint on June 5, 2018 by Deputy Prime Minister Teo Chee Hean, the DGB will allow all citizens to access to every single government transaction digitally by 2023. If the elderly do not learn how to use the technology available to them, they will be at a disadvantage.

Challenge #3: Elderly do not know how to use the available technology

In 2030, technology will advance greatly and the elderly may not be able to catch up. On our site visit to help the elderly, the person in charge told us that an average of 30-40 elderly visit that library seeking for help on mobile devices within the session which lasts for around 3 hours. We were told to have a 20 minute time limit per person as there was a large number of elderly. Also, according to today online, Madam Yang, 59, often feels "lost" in a wired-up society seemingly fuelled by technology on steroids. In the next decade, many things will be automated/ digitised such as Singapore trying to go cashless. Hence the elderly may not be able to understand what is happening. Even for simple things like paying for their food in a hawker centre, they may struggle.

Challenge #4: Needing to work

Many elderly may not know how to use technology to manage their savings efficiently, using less effort and also less time. Thus, more and more of them are needing to work in our current day and age. In Singapore today, one in four seniors are still working. The employment rate for those aged 65 and older jumped from 13.8% in 2006 to 26.8% in 2018. For seniors aged 65 to 69, employment rate has hit 40% by 2015. If our seniors do not make full use of technology to educate and manage their savings effectively, in 2030 even more of them will be working or even worse, jobless and there will be lesser jobs then. WIth technology, they can save time for example instead of going to a bank to check their savings, they can do it online.

Challenge #5: Possibility of online scams

Due to elderly not being as educated as the younger generation on the internet and its risks, elderly are more prone to falling for scams. Elderly are also more likely to suffer from dementia which would cause them to be even more naive about such dangers. According to the Straits Times, figures from the police showed that elderly across Singapore lost S$88, 000 in loan scams and S$960,00 in love scams involving elderly between January and September of 2018. With technology becoming more prominent in our societies, it is only a matter of time before elderly are exposed to the internet and are at risk of coming into contact with such scammers.

STEP 2. Craft the Underlying Problem

Incorporating Challenge(s) # _____1,2,3_____

Underlying Problem: Given that technology will greatly advance in 2030, how can we educate the ageing population(elderly) to keep up and make full use of the technology available to them?

STEP 3. Produce solution ideas

Solution #1: Educating the elderly through hologram projections (In the future)

According to eLearning Industry, visuals help people to store information longer. By using hologram projections to educate the elderly, it allows people to teach them more about technology without physical contact which saves time and effort, and also allows the elderly to be more connected with the mentor, as if the conversation was face to face, physically. This will allow us to strike a balance between the effort it takes to teach an elderly, and also the quality of the teaching, which is improved as it is more interactive than videos and also does not take that much effort as compared to having more outlets like Silver Infocomm to educate the elderly.

Solution #2: Setting up more workshop outlets like Silver Infocomm

By setting up in more locations across Singapore more often, the elderly will not only have a convenient access point to learn about technology, but this might also attract more elderly to start using current technology as they see how accessible aid is for them in order to reduce risks of using technology. Volunteers at these outlets would also give the elderly a confidence boost as long as the volunteers encourage them and teach them well. The interaction between volunteers and elderly will also induce the elderly to feel less lonely. According to Mind, "making new connections" can help with loneliness.

Solution #3: Having simulations to educate the elderly on how to deal with real life scams

By allowing the elderly to play a simulation, they are able to learn what to do or not to do on their smartphones or on the internet, and put into practice these skills, so they do not repeat the same mistakes and do not get scammed. According to SERC, simulations have the power to engage people in deep learning.

Solution #4: Using videos to educate the elderly

Videos allow us to save manpower as once they are made, the elderly can rewatch them over and over and little to no manpower is needed. If an elderly forgets a certain concept, they can rewatch the video and there would be no need for someone to supervise him. The elderly can also slow down the video to a speed that suits them and also have subtitles to the language they are comfortable with. This is especially useful for beginners that may take a while to grasp the basics. According to LinkedIn, the brain responds to visuals fast, better than text or any other kind of learning material. Remembering stuff from the picture is retained in the mind for a longer time. Through videos, students get to process information fast.

Solution #5: Encourage people to use technology to their full advantage and show them how it can help in a great way

Many elderly as proven in the problems, are afraid to use technology. By showing them how technology can positively impact their lives in a great way, they will likely consider using technology more often if they have not. By encouraging them, some are likely to just try it out and see how it can greatly help them connect with people and do many things more efficiently like buying detergent online, enabling them to spend less time and effort in many ways.

STEP 4a. Select Criteria

Criterion #1: Usefulness

The solution has to be useful in the sense that the elderly can apply it in their daily lives or it increases the amount of knowledge the elderly can have.

Criterion #2: Cost effectiveness

The budget that an organisation has may be tight and it helps if less money is spent as with the same amount of money can then be used for a higher quantity of the solution

Criterion #3: Manpower(the less manpower it takes, the higher the points on the decision making matrix)

Less manpower usage reduces the risk of manpower shortages. Manpower may be limited as like cost effectiveness, it helps if lesser people are required for a task as then with the available manpower we can reach out to more elderly

Criterion #4: How fast the elderly can grasp a concept with a certain method(speed)

We refer to this as in a period of time, which method can allow the elderly to learn more

about technology or its importance and how easily the elderly can grasp a topic using that solution. If the elderly can grasp a certain topic quickly, it results in more elderly being able to be served.

Criterion #5:Easy access(to solution)

When the solution is easily accessible to the elderly, they will feel like it is less of a hassle to learn how to use technology. They are more encouraged to learn and are more likely to enjoy it.

STEP 4b. Apply Criteria

	Videos	More outlets	Holograms	Encourage elderly	Simulations About scams
Practicality(5)	2 x 5 = 10	5 x 5 = 25	1 x 5 = 5	4 x 5 = 20	3 x 5 = 15
Usefulness(4)	4 x 4 = 16	5 x 4 = 20	3 x 4 = 12	1 x 4 = 4	2 x 4 = 8
Speed elderly can digest information(3)	4 x 3 = 12	5 x 3 = 15	3 x 3 = 9	1 x 3 = 3	2 x 3 = 6
Manpower (2)	5 x 2 = 10	1 x 2 = 2	4 x 2 = 8	3 x 2 = 6	2 x 2 = 4
Cost effectiveness (1)	4 x 1 = 4	2 x 1 = 2	1 x 1 = 1	5 x 1 = 5	3 x 1 = 3
Total	51	64	35	38	36

STEP 5. Develop an Action Plan and Evaluate its Feasibility

Action Plan derived from Solution #2 and #1

Action plan (continued): We, the Educating Elderly, will start more outlets of digital workshops like Silver Infocomm, thus the elderly will be given a more accessible and time efficient opportunity to learn about technology and be able to keep up with digital changes. Having more of these workshops in Singapore can also help to raise awareness about technology available to the elderly and that this technology is not only important but useful, or to families of elderly that the elderly are requiring more help with technology. This action plan can be implemented by reaching out to organisations that are already carrying out such workshops and assisting them in organising workshops around Singapore or increasing awareness of such workshops to increase the number of attendees or volunteers that help out. Our timeline for implementing this will be from now to year 2025, so that most elderly can learn the basics of technology, and thus in 2025 we can connect the elderly digitally when they know how to do so by then, instead of physically. From now until around 2022-2023, our goal is to spread the word of these outlets and from then to 2025, the elderly would likely have enough time to learn what they want to learn, mainly the basics. Some challenges we might face are that elderly are afraid to use technology or are just do not want to learn. However, these challenges can be overcome by (solution 5) showing the elderly that technology can make how they do things more efficient(less time and effort) and also encouraging the elderly to try out technology so they give it a go and can experience its benefits.

This action plan can solve the Underlying Problem as the elderly will not have to go through a syllables to learn the basics, thus they will not find it uninteresting after a

while or not applicable to them. By allowing them to ask the volunteers at the outlets about their problems, we are able to cater specifically to what each elderly needs and thus we can be very sure that what is taught to them will be helpful in their lives when they use technology.

According to TD Learning, many researchers and experts have found that the most preferred form of learning is face-to-face. Thus, having more outlets will allow more elderly to easily access this way of learning technology as there still may be some parts where there may not be sessions that are often organised there.

After the elderly have grasped what they have to learn by 2025, we, the Educating Elderly will use holograms which may possibly come out from then to 2030, allowing the elderly to use it as they have learnt the basics and gotten the hang of technology. With holograms, it allows for face to face interaction and it is more immersive than video calls. Unlike the outlets, it is also an efficient method of connecting the elderly and the volunteers and elderly can also be helped by a share screen feature.

Challenges we may face are that laser from a hologram may cause safety issues, but by 2025-2028, filtering optics are likely to have further developed to allow people to use holograms to communicate. According to LaserFocusWorld, optic filter performance keeps improving and thus we can be confident that it can protect the elderly well when they use hologram projections in a few years. Therefore, our action plan can solve our Underlying problem.

Feedback from our organisation Silver Infocomm: "A way that connects the elderly digitally and allowing the elderly to learn as quickly as the session in the outlets would be useful""

Secondary research: 81.7% of people we surveyed felt the outlets would help the elderly

These were the reasons we decided to use holograms.

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