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Simplifying Technology for Seniors  
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## 1. Executive Summary

Within our project, my partner and I aimed to fulfill the goal of simplifying technology usage for senior citizens. Seniors are often left behind in terms of technology, often because no one has taken the time to sit down with them and explain how to utilize their devices. There is a need to be technologically fit in today's society, and by educating older generations on these topics, we can move them forward into this technological age. We went about addressing this problem by creating a series of interactive, informational videos that go over the basics of everyday technology, such as smartphones, laptops, tablets, and more, and how to optimize this technology for a senior's own use. By assessing senior citizens' technological needs in the Aurora community, we were able to determine the exact need for a project such as this. Working under the guidance of our business mentor, we developed carefully written scripts for step-by-step videos on various technological topics. We wanted to ensure our videos would not only be a reliable source for seniors, but also a tool that was easily accessible and available to them. At SafeStart Medical Inc., we have witnessed firsthand how a project is often created to address a need of the company, and is then placed into action after careful planning. Our project was built around this concept. Seeing a critical need in the community, my partner and I developed a solution through assessing our target audience's needs and carefully planning to ensure our solution is effective.

## 2. Business Context

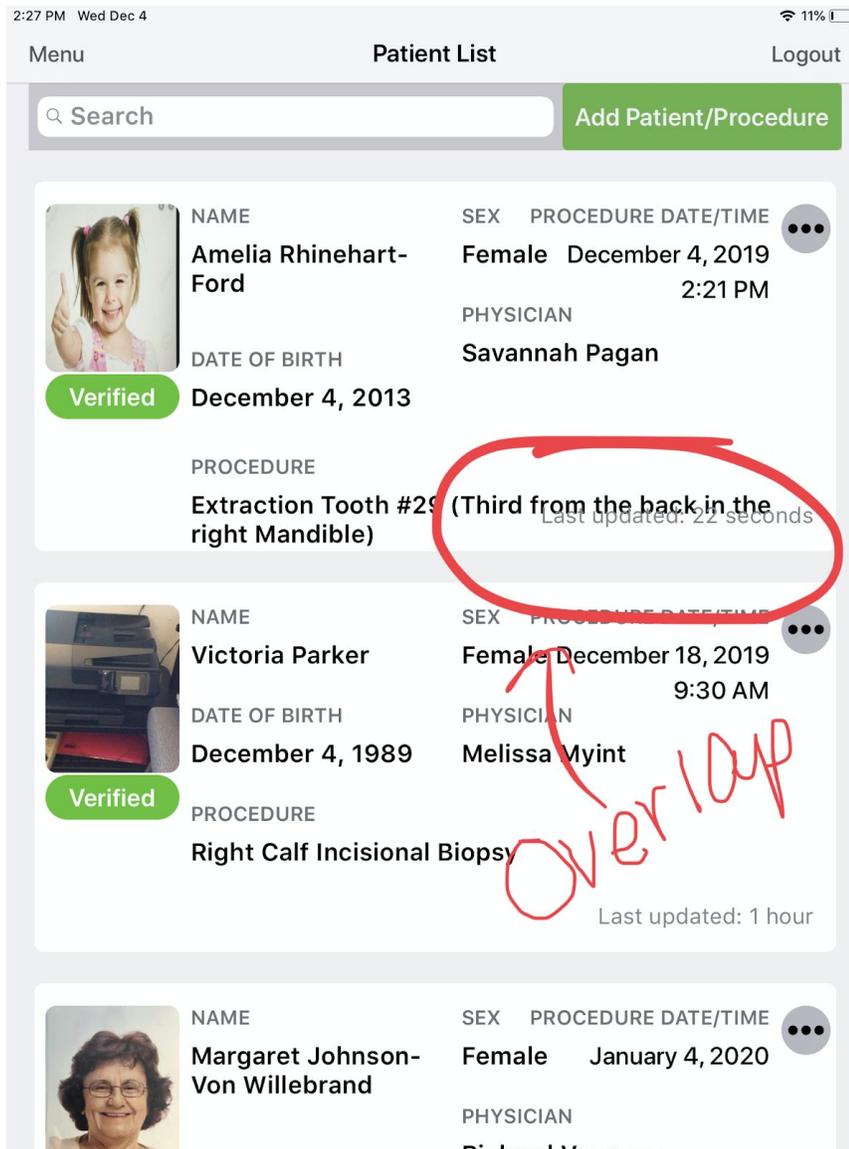
During my internship, I worked on location at Matter, a business start-up incubator, at the Merchandise Mart in Chicago. I was able to work and meet with various business professionals, especially ones within the medical field. SafeStart Medical Inc. is a start-up company that combines aspects of the medical field and technology, to launch an application targeted towards hospitals and their patients. Within the medical industry, there is a growing need for various kinds of innovations.

SafeStart is a medical application tool that is used for the primary purpose of simplifying patient/doctor interactions and preventing "never-events" in hospitals and clinics. Never-events are events that should never occur in hospitals, such as the incorrect body part being operated on within surgery. By preventing these "never-events", not only is SafeStart ensuring the health of the patients, it is ensuring that the hospital's professional integrity remains intact. SafeStart works to prevent "never-events" by acting as a safety "checklist" in operation rooms, general patient

visits, and more. Currently, the SafeStart application is in the beta testing stage, and is being piloted at various hospitals within the US and other countries.

### 3. Business Project Description

I was employed at SafeStart Medical Inc. to aid them in the beta testing of the SafeStart application, research, and customer outreach. I spent each I-day working with the newest build of the application, and continually using and testing it to find bugs and to essentially “break” the app. I also gave input on the user experience (UX) of the interface, the overall ease of use, and other design features. I would test the application on different devices, like my iPhone or iPad mini, as the application needed to be formatted differently for different devices. I would add and check-in fake “patients” through the application, paying close attention to how the app responded to my actions and whether it completed each action correctly or not. In order to report bugs or formatting errors, I would take a screen capture of the app and describe the bug or issue. For example:



In this screen capture, I was testing the application on my iPad mini and noticed a formatting issue. When the device was in portrait mode, some of the lines overlapped if the description of the procedure was too long, which I noted in the picture. After taking the screen capture, I reported it to my mentor, Dr. Vazquez, and the developers working remotely, so that they were aware of the issue and could take the necessary steps to correct it.

On other I-days, I would work on various research assignments for the company and company outreach. For example, some of the research involved finding contact information for hospitals, clinics, and other companies that SafeStart could potentially work or partner with in the future. I would often organize data and information like this into spreadsheets for my mentor's convenience. I would also research various medical procedures and their purpose for my own knowledge and insight into what the application could be used for.

I also spent one of my I-days attending a class at the Northwestern University campus in Chicago. My mentor, being a doctor, was invited to watch and give feedback to a class of students presenting their ideas for potential medical products. These students are currently in pursuit of their Master of Science and Law degree at Northwestern. Watching these presentations was extremely interesting, as I learned of various issues within the medical world that I was not aware existed. I appreciated the innovativeness of their proposed solutions to these issues, and it sparked my own further interest in the medical field. For example, one group of students talked about the faultiness of current insulin pumps used to treat diabetes and their unreliability, and proposed an alternate solution. I appreciated having the opportunity to hear these presentations and the feedback on various product ideas.

When developing my business project for IMSAloquium, I conferred with my business mentor and my fellow internship partner, Melissa Myint. We wanted to develop a project that would align with SafeStart Medical Inc.'s ideals and have a positive impact on the community, and searched for a common issue that needed a solution. When brainstorming, my mentor, Dr. Vazquez, began telling us about his mother, and problems that people of her age have with using various technology. He remarked that his mother almost seemed afraid of devices such as her phone, and was afraid to ask for help for fear of looking unknowledgeable on the subject. Dr. Vazquez continued by telling us that after sitting down with his mother for a couple of hours and educating her on the set-up, usage, and tips and tricks of her smartphone, she picked up the content almost right away. From this, our initial project idea was born. We realized that it was more than likely that many seniors felt this way towards technology.

It was not that they did not want to use it and explore its capabilities, it was that they did not know how to and were either afraid or too proud to ask. Melissa and I decided that we wanted to develop a resource that would explain the basics of various technologies, such as laptops, smartphones, tablets, clearly and concisely to seniors.

When deciding what form we wanted this resource to be available in, we realized that it would be most effective to have it conveniently available to all seniors online, at any given time. My partner and I discussed the option of visiting senior communities and educating our target audience on-site and in-person, but quickly realized this would be ineffective, as we would not be reaching the large audience we wanted to reach. Visiting senior communities was also not a viable option as many of the people that live there are often sick or more susceptible to contracting various diseases. By visiting in-person, we would potentially be bringing foreign pathogens from the outside, and we did not want to heighten that risk. After coming to this conclusion, Melissa and I decided that we would implement a series of videos on major brands, such as Apple, Samsung, and Android, and their products, ranging from the basic set-up and usage, to more advanced concepts. Before we went any further, Melissa and I wanted to ensure there was a definite need for a resource such as this, and as such, we developed a survey to gauge interest. During our I-days, we researched senior living communities local to IMSA and developed a spreadsheet with their contact information:

Name	Phone Number	Email Address
Senior Services Associates	630-897-4035	
Aurora Township Senior Center	(630) 897-4305	
Independence Village		
Plum Landing EMAIL SENT --> invalid email address, didn't work	630-896-5031	info@plumlanding.com
Jennings Terrace - Invite sent via LinkedIn	(815) 401-1533 ext. 22	
Presence Fox Knoll - Invite sent via LinkedIn	630-844-0380	
Sunnymere EMAIL SENT	(630) 898-7844	Sunnymere@sunnymere.com
Presence McAuley Manor - Invite sent via LinkedIn	(630) 859-3700	
Alden Horizon Independent Senior Living Community	(630) 499-1890	
Asbury Gardens - Invite sent via LinkedIn	(630) 896-7778	
North Aurora Care Center - Invite sent via LinkedIn	(630) 892-7627	
Arbor Terrace Naperville - Invite sent via LinkedIn	(630) 219-3670	
Bickford of Aurora	(630) 631-5555	
Symphony of Orchard Valley EMAIL SENT	(630) 896-4686	jcarroll@symphonypan.com
The Reserve at Oswego - Invite sent via LinkedIn	(331) 454-7540	<a href="https://reserveatoswego.com/Contactus.asp#">https://reserveatoswego.com/Contactus.asp#</a>
Bright Oaks of Aurora EMAIL SENT	(630) 492-1712	info@brightoaksofaurora.com
Monarch Landing EMAIL SENT	(630) 300-1300	info@MonarchLanding.net
Tabor Hills Retirement Community - Invitation sent via LinkedIn	(630) 305-5400	

I sent out multiple emails and messages via LinkedIn to establish contact with these communities and survey their residents. After hearing back from a couple of

communities with mostly positive responses, we determined that there was most definitely a need for this resource. We developed scripts for these videos, and planned to use a combination of both screen-video captures and videos of actual phone usage, with a voice-over narration and explanation of what was being shown on screen. Because it can be difficult to understand and grasp concepts through video, Melissa and I aimed to make the videos as interactive as possible, and appeal to them as seniors by showing how to do things physically, rather than simply speaking about it. Unfortunately, due to the COVID-19 pandemic, we were unable to continue our internship in-person at Matter, and as such, our project has been on-hold since then, though we are continuing to develop scripts and test the SafeStart application remotely.

#### **4. Business Project Research**

##### **Questions:**

How do we correct the issue of seniors feeling scared/unsure of how to approach technology? What kind of resource would be the most effective for them to learn from?

Within my research, I utilized internet sources about the senior community and technology, information on what is currently being done to combat this and what resources are available to them, and reviewed the data from the survey my partner and I designed to gauge interest and need.

My partner Melissa and I wanted to approach our project by first understanding what had been done in support of this issue beforehand. The lack of understanding and connection between seniors and technology has been an ongoing issue. In today's society, having a basic understanding of technology is essential, as the world we live in is becoming more and more dominated by technology.

Currently, there are many efforts being done to recognize and address this problem. It was obvious to us that typically, it was not the actual understanding of technology that was the issue. It seemed the actual problem was giving the older generation the resources and tools that were necessary for proper understanding. When researching, we found faults with some of the ideas or plans that are currently being implemented. For example, The Gadget Guides, a company that offers face-to-face instruction within homes and senior communities on various aspects of technology, are charging upwards of \$70 per hour for a one-on-one session (Freeman, 2020). This price seems outrageous for what is being offered, and requires planning and scheduling ahead of time. This is also not a resource that consumers would be able to review, as after the person has gone, they are left on their own. With our

resource, we aim to improve upon this by making it readily available at any time, and to any consumer. Our videos would also be able to be played back or paused when needed. By ensuring our videos are simple and break down individual tasks through an interactive interface, we can facilitate greater learning among our target audience.

Other resources, such as a video series about technology that the AARP provides, were more along the lines of the goal of our project. The AARP TEK Technology Resource Center offers multiple videos on technology basics, such as internet surfing or navigating social media websites (“AARP TEK Technology Resource Center”, 2020). These videos seem slightly dated though, and are not up to date on current smartphones and other devices. These videos are also not directly advertised on their website, and are slightly difficult to locate and access. Unless previously made aware, no member of the senior community would know of their existence. We wanted to ensure the resource we were developing was easily accessible, and covered topics relevant to current and future applications and smartphones, tablets, laptops, and other devices. In order to ensure that the resource stayed relevant and current, my partner and I had planned to pass this project on to other future interns after developing it further. Unfortunately due to the COVID-19 pandemic, we did not have the chance to develop as far as we would have liked. Nonetheless, this project will still be passed on and continued by future SafeStart interns.

With these two examples in mind, my partner and I wanted to learn more about the data behind the senior community’s lack of technological knowledge. As stated before, we sent out a survey to various local senior living communities to gauge interest and the need for a product like this.

## Seniors & Technology Interest Survey

Hello! This survey has the intent of learning more about seniors and their knowledge and comfortability using various technology, such as cell phones and other devices. We want to learn more about seniors and their needs surrounding technology, as my intern partner and I are developing a project to help seniors further develop their skills in everyday technology usage. Please fill out the following survey and share your opinions with us. Thank you!

Within your assisted living community, how would you rate the level of comfort a typical senior has operating a phone or another device? (1 being completely incapable and 10 being extremely proficient)

1   2   3   4   5   6   7   8   9   10

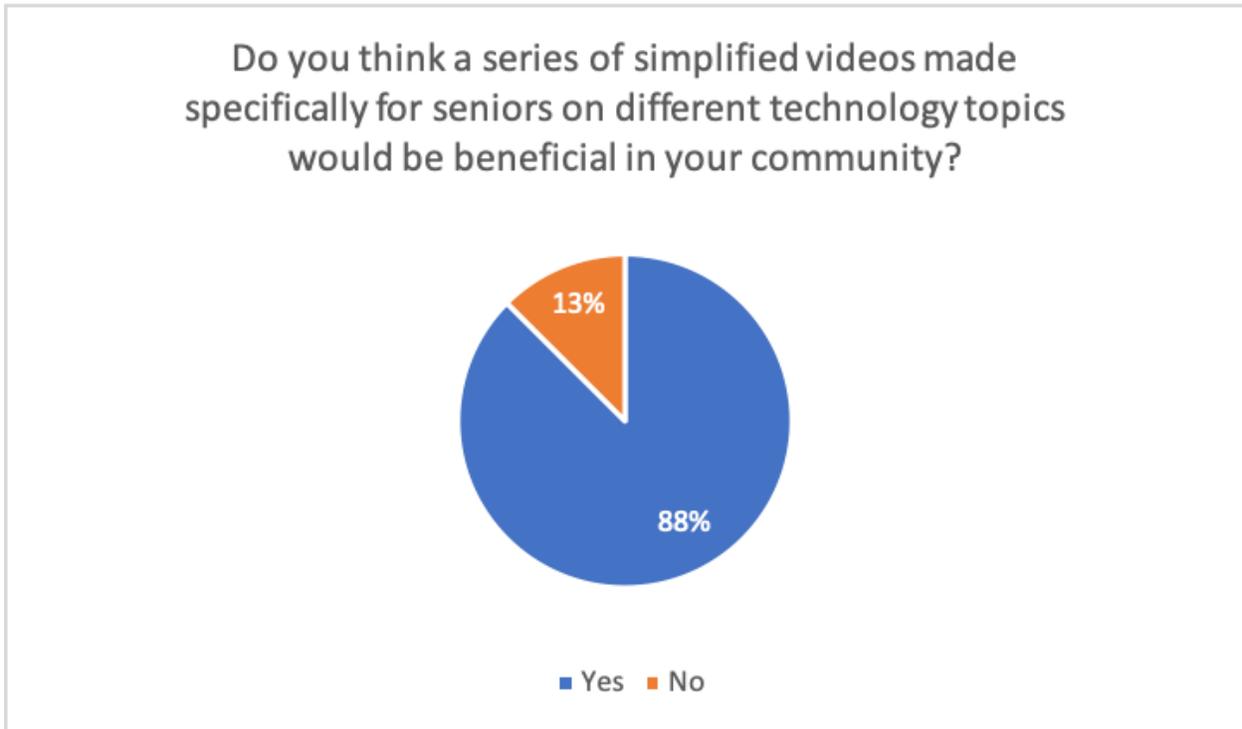
                         

What types of devices do seniors in your community have the most trouble with?

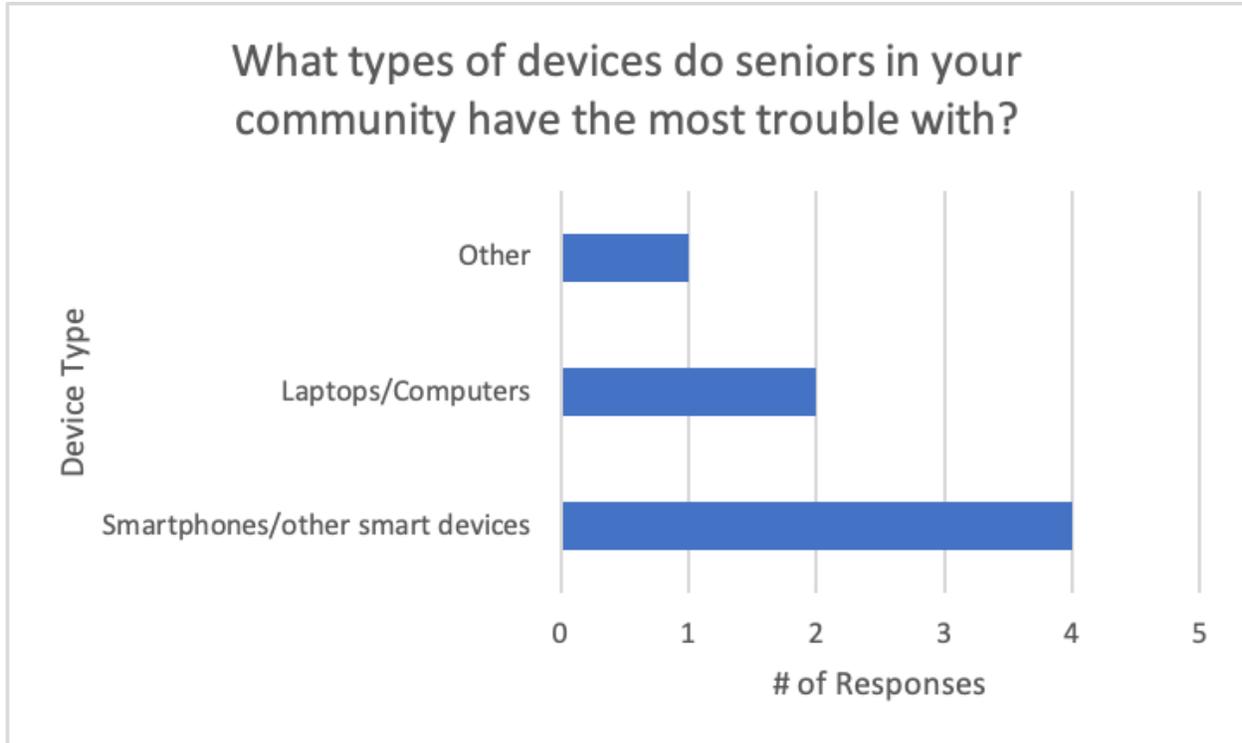
Smart phones

iPads/Tablets

This survey consisted of questions like the ones seen in the screen capture above. In order for us to move forward in our project, it was necessary to ensure that seniors being at a technological loss was a recognized issue observed in these living communities. Of the local senior assisted-living communities we attempted to survey, we received seven responses, and were able to evaluate our next steps based on the data.



Six of the seven communities surveyed agreed that a resource like ours would be beneficial within their community.



When surveyed on what types of devices seniors had the most trouble understanding or approaching, four out of the seven communities responded smartphones or other smart devices. According to the Pew Research Center, 77 percent of seniors surveyed say that they would require assistance to learn how to use a smart device. Of seniors that are already somewhat proficient in using the internet, 56 percent say that they would need assistance to connect with friends and family (Smith, 2019). This data coincides with the quality of data we received from our survey. With this in mind, we were able to confirm the need for a resource such as ours.

The effective completion of our business project was limited by the early end of our in-person internship at the Merchandise Mart due to the COVID-19 pandemic. As such, our success was limited, though my partner and I were able to conclude our research and develop scripts for multiple videos before this occurred. As such, we plan to pass this project down to future interns and therefore ensure its completion in the near future.

## 5. Business Project Key Learnings & Recommendations

After completing this project, I was able to appreciate the value of real-world work experience, and recognize the problems that lie within society and everyday life. I enjoyed working through the problem-solving process of first recognizing the issue at hand, researching what had been done to combat it and the statistics behind the issue, and then setting out to create a better, more efficient and effective solution. I appreciated being able to work with healthcare professionals, like my mentor, Dr. Richard Vazquez, Dima Elissa, and Adila Esaak, and many more. My internship at SafeStart Medical Inc. allowed me to pursue my interest in the medical field, while also gaining meaningful business skills. I am extremely grateful to have had this opportunity, as it has exposed me to invaluable workplace experiences and caused me to grow in both mind and skill set. I enjoyed sitting in on workplace business meetings and conversations and working one-on-one with Dr. Vazquez, whether it be to further my business project, test the application, or to just have a meaningful discussion. Throughout my internship, I was also able to see SafeStart Medical Inc. grow as a company, through initial beta testing and further development of the application to pilot programs of the application being implemented at multiple hospitals around the world. Although it seems this may be the end of my time at SafeStart, I am excited to see what becomes of this company and revolutionary application, and its impact on the medical world. The team at SafeStart Medical Inc. works incredibly well together, and they are extremely helpful and supportive in any workplace endeavor, and I could not have asked for a better workplace environment for my internship. I recommend that they continue to keep this mindset and work to truly show the medical field why SafeStart is essential in hospital rooms and clinics.

## 6. Reference List

AARP TEK Technology Resource Center. (2020). Retrieved April 22, 2020, from <https://videos.aarp.org/category/videos/aarp-tek-technology-resource-center?page=2>

Freeman, C. (2020). The Gadget Guides. Retrieved April 22, 2020, from <http://www.thegadgetguides.com/#>.

Smith, A. (2019, December 31). Attitudes, Impacts, and Barriers to Adoption. Retrieved April 22, 2020, from <https://www.pewresearch.org/internet/2014/04/03/attitudes-impacts-and-barriers-to-adoption/>

## 7. Appendices

Link to the introduction video we initially sent out with the survey:

<https://drive.google.com/file/d/1iheOIh8z3UxU5PSEg9sAI44Ia7mFIOol/view?usp=sharing>