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Simplifying Technology for Seniors
Dr. Richard Vasquez, M.D., FACS
SafeStart Medical Inc.
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Executive Summary

Our project is nonprofit and aims to help seniors understand how to use technology in their daily lives by creating videos that are simple and easy to follow. As in this day and age seniors are afraid to use their smart devices other than the basic call function which can prevent seniors from receiving the benefits associated with the use of apps that could track their medication, allow them to video call, and etc. These seniors are therefore being left out from the increasing digital society. In order to accomplish this goal, we are creating instructional videos on the uses of technology. Seniors will be able to follow simple instructions demonstrated in our videos on what smart devices they want to learn how to use. Also many new healthcare apps such as PGHD (Patient Generated Healthcare Data) and patient monitoring apps require the user to have some proficiency with smart devices. While doing this project we learned how to make videos that are clear and concise, as well as how to reach out to retirement homes to assess their need for a project such as this. Through script writing for our videos, we have also learned how to cater to our target audience so that our videos will be a reliable source for them. Much thought has been put into how we can better serve our audience through our resource project. Our mentor has worked with us to develop an effective method to combat the issues seniors face in this day and age. We have seen firsthand how projects are first drafted based on the needs of the consumer and then put into action after careful planning. Our internship project has also taught us how to interrogate the marketplace for similar products that might exist, reach out to our target audience and meet their needs, and the marketing that is involved in order to get our product out to the public.

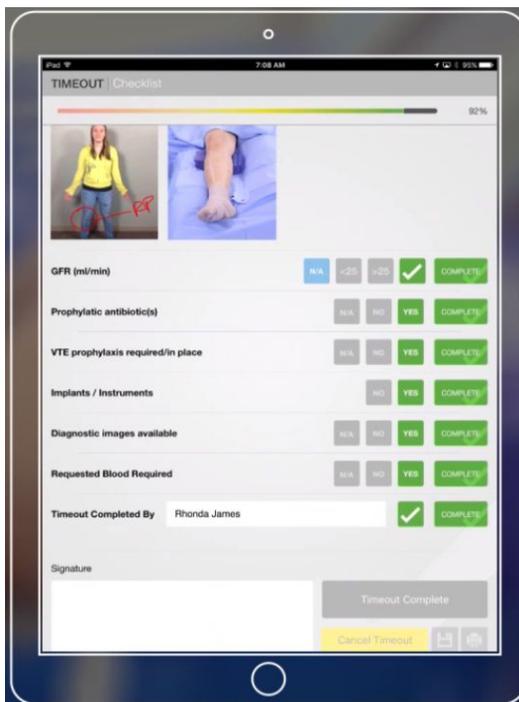
Business Context

For the duration of my internship I was working from Merchandise Mart, a business incubator located in downtown Chicago. There were many showrooms, shops, and companies located at Merchandise Mart. While interning at a company there I was able to meet professionals who were working in or for the medical field. Through MATTER (a healthcare startup incubator), an area that contained many businesses that are focused on healthcare, I was able to see how businesses are a major part of the healthcare industry. While sitting through my mentors meetings and meeting those working on making their ideas into a reality, so that our medical field can continue growing. I saw the need for many of the products and ideas that they were discussing. Those who are not directly affected may not notice how the healthcare system is not

exactly up to date causing more mistakes, stress, and etc. Therefore there were many companies working in MATTER to fix problems such as these.

SafeStart is a company that uses mobile technology to create HIPAA compliant records of the patient in order to help combat the issue of Never Events. The SafeStart app allows complete records to contain photos of surgery sites that have been initialed by the surgeon to prevent errors of the surgery site, clinicals documents, allergy information forms, consent forms, and many other features. The records are reviewed multiple times by clinical staff, and the patient, allowing the procedure to be able to begin on schedule safely. Never Events can be described as medical errors that should have never happened such as having surgery done on the incorrect body part; a foreign tool/instrument being left in the patient after a surgery was done; giving a blood transfusion but the blood types are not a match; an error in the medication given to the patient, are all examples of what never events are.

Never events cause great physical and mental harm to the patients and have a negative impact on doctors, nurses, their facilities, and other medical personnel who are involved. SafeStart focused on designing an app that could help eliminate mistakes such as operating on the wrong patient, doing the wrong operation, or even operating on the wrong area. The SafeStart app process starts when the patient walks in for their pre-op prior to their procedure. A nurse or medical staff will take pictures of the patient, their surgery site, include allergies, consent forms, and if underage signatures from their legal guardian. SafeStart's app helps prevent Never Events and helps prevent delays and cancellations in the operating room that might cause patient flow to be disrupted.

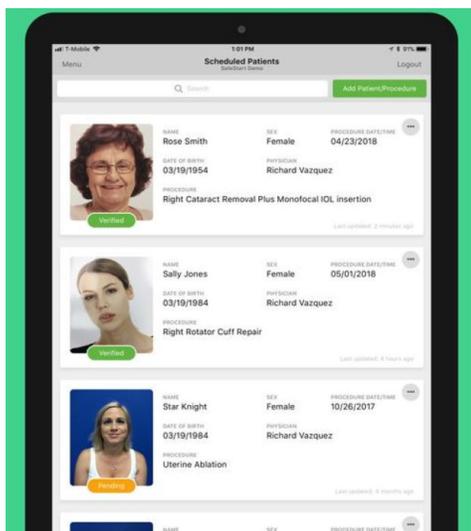


This iPad shows what the app looks like and how detailed the information would be so that in the operating room no confusion arises.

Business Project Description

I was employed at SafeStart Medical Inc. to help with the initial testing of their app, and to research marketing strategies that could be used for the app to be known to its target audience. During each I-Day my mentor set up an account for me to test the app as a doctor to see whether the app was working for both the patients and the doctors. I would enter made up patients and try to test its many functions to see if anything I did would cause the app to crash and therefore fail to perform the requested task. While I was creating new patients and taking pictures to upload I was able to get a good grasp at how well the app was working in terms of whether I was able to mark a 'surgical site' with my initials and if the app would properly show follow-up instructions for those who were underaged.

Another major part of the app testing was to see if the app would send an email to the patient to ask for a verification of all the information entered previously by the medical staff. An email of the completed form is also sent to the doctor so that they are able to recheck any details that are important for the procedure to occur. Most of my I-days before I was given a specific project were spent testing the app, but I also was learning about how to cater to an intended target audience. To do this I was given a list of similar startup companies so that I could research their social media and how they were able to get the word of their product across to their consumers. Also by learning the target audiences issues and needs I was able to research new ways to cater to their needs.



As shown above this is an example of what entered patients appeared like on the app. When the image is tapped on more in-depth information on the procedure they are to have done will appear.

For my IMSAloquium business project, I wanted to find a way that incorporated the company but also expanded to the community. I began having meetings with my business mentor and partner, Savannah Pagan, to discuss what we could do to incorporate what the company was trying to establish based off of the need within the community. After discussing, my mentor, Dr. Richard Vazquez, M.D., FACS, thought about a personal experience he had with his own mother. He explained that her knowledge in technology was very limited and even with the help of her daughter she did not find a reason for needing to learn how to use her technology properly. While my mentor thought that initially his mom just was not interested in learning, it actually turned out to be that she did not want to ask for help and would rather just not use her devices completely. Once Dr. Vazquez understood what was stopping his mother from using her devices; he sat down with her and taught her the basics of how to use her mobile devices. That sparked her to learn more so that she could access her devices more conveniently as she began to see the many uses and benefits that came with being able to use devices such as her cell phone. We then discussed that the seniors around us were quite like Dr. Vazquez's mother, this helped us realize that seniors lacking knowledge on how to use their technology was quite common. From there our project idea began as we realized this could be a project that can reach many seniors who need technology for things that involve their health and other basic functions.

Once our project idea was settled on we had to determine what method we wanted to use to reach our seniors in the most safe and effective way. Therefore my partner and I determined that the best solution was to make videos that would allow the seniors to safely follow at their own speed. After settling on the idea of making videos on the basics of mobile smartphone usage we had to determine which models and brands we should do first. After discussing with my partner we decided to begin with the more known brands such as Apple and Android devices. Before we began with our videos we wanted to see whether this project had potential interest so we sent out emails to some local senior living communities.

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	https://reserveatoswego.com/Contactus.asp#
Bright Oaks of Aurora EMAIL SENT	(630) 492-1712	info@brihtoaksofaurora.com
Monarch Landing EMAIL SENT	(630) 300-1300	info@MonarchLanding.net
Tabor Hills Retirement Community - Invitation sent via LinkedIn	(630) 305-5400	

During our I-days we researched a few senior living communities that were local and sent them a video made by my partner and myself that introduced who we were and what project we were working on. Along with the video we sent the survey and requested that they fill the form out so that we could gauge their interest on this matter. The picture above shows some of the local senior living centers that we reached out to.

Business Project Research

How do we help seniors feel less hesitant about approaching technology? What is the best resource that we can provide to help them become more confident in their ability to use their technology?

To research I used the sources and studies previously done that were accessible on the internet to study why seniors were so hesitant about using technology. I was able to ask around and had strangers give stories of seniors that they personally knew who stayed away from using technology as they did not want to ask others for help. My partner and I also reviewed data from an interest survey sent out previously to figure out if this was a needed resource.

After initial research my partner and I began to realize that the absence of technology understanding was an issue that although has improved over the years is still an ongoing problem for the seniors. As in today's world technology is an essential in everyday life. Learning how to use their devices opens up a whole new door for seniors that puts them in connection with friends and family, stores reminders for their medicine,

and there are so many other uses that their mobile devices can allow them to access when they learn how to manage their technology.

While looking through many internet sources we were able to recognize that there were many attempts at addressing the problem in their own way. We realized that seniors lack the knowledge of technology usage mainly because they are not given the resources or tools they need to thrive. There were many companies that offered in-person lessons to seniors but they were charging large fees each hour they taught. The high prices seemed unbelievable and seemed like a resource that was not accessible by all who wanted or needed it. We realized that these high prices and lack of resources once the instructor was no longer present would be barriers to our target audience. With our project, we decided that making videos where seniors could follow even without a direct face-to-face instructor. My partner Savannah and I also addressed that we could do video calls and answer questions they may have had while watching the instructional video.

We also researched other resources that were already out and saw that there were technology resource centers such as AARP Tech Training Builds Connections and Confidence for Older Adults. They offer instructional videos on how to use mobile devices and how to surf the web in general (“AARP Tech Training Technology Resource Center”, 2018). After watching these videos we saw that they were from previous years and did not include resources for newer models. Another resource center that I found was called OATS (Older Adults Technology Services) and this allowed seniors to connect online face-to-face for instructions (OATS Client Projects, n.d.). While that is a great idea, in order to get this resource a senior must first navigate their website that does not contain many resources for seniors to complete in their own time. Connecting this way may be considered a hassle for seniors with already limited knowledge of how to use their device causing them to be deterred from continuing in their learning process.

Even from the initial search for resources we found them hard to navigate and did not find one that was easy to access and did not have many barriers for seniors to access. Therefore, my partner and I wanted to continue learning about the reasons behind the lack of technology usage in seniors. We had wanted to do research on devices that were still relevant and were thinking about passing on the project to future interns at the company in order to keep the information up to date.

Due to the COVID-19 pandemic my partner and I were not able to complete as much as we had hoped but made a good start on this project that will be continued by future interns at SafeStart. Other than the pandemic having limited resources on our project ended up being limitations to our project.

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!

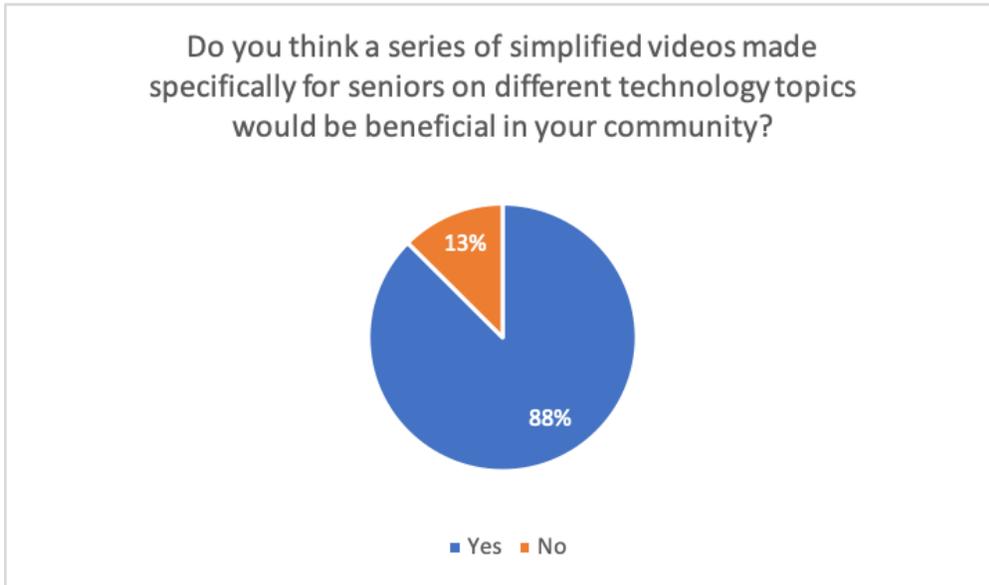
Within your assisted living community, how would you rate the level of comfort a typical senior has operating a phone or another device? (1 being completely incapable and 10 being extremely proficient)

1	2	3	4	5	6	7	8	9	10
<input type="radio"/>									

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

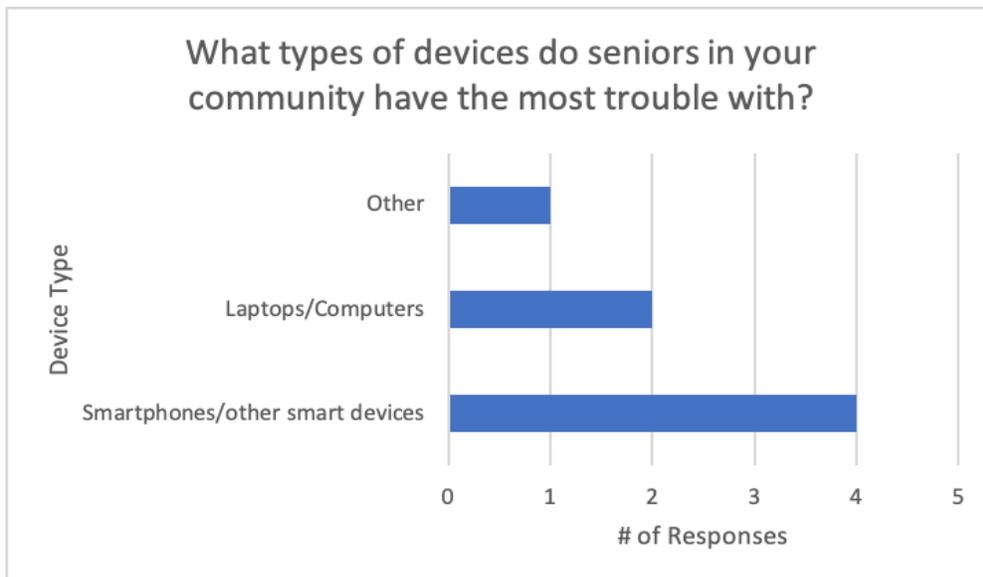
- Smart phones
- iPads/Tablets

The picture above is the survey that my partner and I used to measure whether a resource such as this was needed. There were a few questions that were either on a 1-10 scale or multiple choice so that seniors would have an easier time taking the survey. This allowed us to get necessary data from our local senior community.



The graph above shows the results of what seniors thought about whether simplified videos being made would help the senior living community that they currently resided in. The results show that 88% of those who were surveyed believed that simplified videos would be a good resource for them and the community they were in. This gave us further data about what seniors in our local community thought about our project and the resources that this could potentially serve for them.

Through our research and the results shown on this graph my partner and I realized that simplified videos could be a great resource for seniors who are wanting to learn how to use their devices in a world that is driven by technology.



The graph above shows our data on the types of devices that seniors in their own communities are struggling with. Through learning what devices seniors were having a hard time with allowed us to focus where we would start with our project. Our survey results showed us that seniors were struggling the most with using their mobile phones. Therefore, my partner and I decided to begin with mobile phones and began writing scripts for our videos. We were able to split up and do both Apple and certain Android phones. Unfortunately due to the COVID-19 pandemic we were not able to progress much further than that.

Business Project Key Learnings & Recommendations

My business mentor and the project that I was given to work on with my partner has really helped me learn about how to turn an idea into an actual project that I spend my time working on and developing with others to meet the needs of our intended target audience. I learned that even prior to beginning your project a lot of research was needed to scope out what was already available and what I could do differently so that it would be more efficient and accessible to my target audience. I was able to apply what I had learned from my mentors into an actual project where I got first hand experience on what it is like to attempt a project. I was also able to learn about an aspect of the medical field that I had not thought about previously such as Never Events.

I was able to learn how to reach out to others to get the word out about the project being worked on and was able to see how much marketing is needed. Even after a product was completed that was not the end of the road for a project was a big take-away for me as I saw how much time was going into figuring out how to get the word out to the intended audience. Through much designing and working with others the product and marketing sides began to come together to help promote the product in the best light and show why there is a need for such products.

Dr. Vasquez and the whole SafeStart team have been amazing in allowing me to get experience on another side of the medical field that I had not previously considered. The meetings and testing of their project really shows me how much time and effort goes into developing a product. After learning that Dr. Vazquez has wanted to create an app like this based on his observations while he was a surgeon was also inspiring as a small idea he had has become an app that may save patients and medical staff from harm and worries. I also learned from other members of the SafeStart team how important marketing was and getting to know your target audience because only when you know their needs can you aim to cater to them. I was able to experience and learn so much from the whole SafeStart team from how an app is tested, how to reach out to your intended audience to get data, and how to combine all of it together to make a

project. The whole SafeStart team had a positive outlook on the medical field and were continually looking on ways to improve it. Allowing students to learn about the medical field while learning about what aspects could be done more efficiently and safely allows for the development of a new perspective. I would recommend my mentor to keep having students learn and sit in on meetings to really show what it's like to work on the business side.

Reference List

“Client Projects.” OATS, oats.org/client-projects/.

Frank, David. “Tech Training Helps Older Americans Socialize.” *AARP*, 24 July 2018, www.aarp.org/home-family/personal-technology/info-2018/technology-training-for-older-adults.html.

“SafeStart Medical.” *SafeStart Medical*, www.safestartmedical.com/.

Appendices

1. Attendance was taken on the ImBlaze app so I do not have weekly timesheets
2. This is the link to the introduction video that was filmed by my partner Savannah and myself. This introduction video was sent out with the survey:
<https://drive.google.com/file/d/1iheOIh8z3UxU5PSEg9sAI44Ia7mFIOol/view?usp=sharing>