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ABSTRACT:

This thesis project seeks to unpack how older adults living in assisted living facilities maintain and deepen their social connections. According to established research, social support systems and active lifestyles are major factors in improving quality of life. By sitting down with residents in the assisted living division of Menorah Park in Syracuse, and conducting a series of research activities, a better understanding of how older adults live in assisted living facilities.

One potential design solution currently being explored to keep older adults socially engaged could be the design of a social hub terminal that encourages residents to congregate daily to find out what types of events and programs are occurring in the facility as well as in the local community. Based on their daily routines, the terminal interface was designed based upon the participant's favored activities.

Facilitating Social Support Systems for
Adults in Assisted Living Communities

by

Kathryn M. Detwiler

B.A., Susquehanna University, 2014

Thesis

Submitted in partial fulfillment of the requirements for the degree of
Master of Fine Arts in Collaborative Design.

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Syracuse University
December 2017

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ABSTRACT

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By sitting down with residents in the assisted living division of Menorah Park in Syracuse, and conducting a series of research activities, a better understanding of how older adults live in assisted living facilities.

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LITERATURE REVIEW

The articles and books listed in this section of the booklet are some of the ones that supported the beginning research stages of my thesis process. I was inspired to design for the assisted living population when visiting my grandmother in her assisted living residence in Pennsylvania. Wanting to see what current research had to say about older adults in assisted living, what their social lives were like, how mental health plays a part in their lives, and current design trends, I found these following sources which gave me supporting information, as well as some confirmation about my suspicions that some residents in assisted living are socially isolating themselves due to a lack of mental health care and social support. These sources helped develop the concept for the final design.



THE AGING POPULATION: WHO IS AFFECTED?

The following articles are focused on the demographic of people that I was interested in designing for. These articles cover topics from social activity to their willingness to use mobile devices and similar technology.

AGING IN COMMUNITY: MOBILIZING A NEW PARADIGM OF OLDER ADULTS AS A CORE SOCIAL RESOURCE

By: Kathy Black, Debra Dobbs, and Tiffany L. Young, 2015

In this article, Black et. Al. researched social patterns from older adults that lived in communities independently. They used this research as an initiative to create a better understanding of aging ‘with dignity and independence’. In their findings, they discovered six themes that contribute to healthy and independent aging. Those six themes are: meaningful involvement, aging in place, respect and inclusion, communication and information, transportation and mobility, and health and well-being.

Despite this article being written about community-dwelling, independent older adults, I believe that some of the themes they found are meaningful and applicable to those living in assisted living communities. These themes are ones that I used to develop parts of the interface, and see as goals for residents to achieve a healthy, semi-independent life. While many residents of assisted living communities need assistance as the name suggests, it does not

mean that they are no longer able to think for themselves or want independence in choosing social activities.

I focused on four of the six themes found in Black et. Al.’s research. Each of the themes identified “disclose the the prevalence and importance of..’person-to-person’ in maintaining and enhancing dignity and independence...” (Black et. Al. 230). Each of the four themes I focused on are an important piece to creating meaningful social interactions that will lead to a feeling of independence, and thus a greater connection to their community (in the case of the assisted living residents, their home facility).

For the first theme, ‘meaningful involvement’, the study respondents told researchers that they, “wanted freedom to personally choose areas of interests in which to become involved: ‘...having choices and having a voice’ (Black et. Al. 231).

While this may be easier for community-dwelling adults, opportunities for choosing

one’s own activities becomes more limited once someone moves in to an assisted living arrangement.

The second theme I focused on was ‘respect and inclusion’. Study participants cite that to be able to age with dignity, one’s life is, “enhanced by respectful behavior and social inclusion throughout the community...” (Black et. Al. 232). In the case of this study, ‘dignity’ is defined by their participants as, “being recognized as a full adult who is due respect, whatever the physical condition or appearance” (Black et. Al. 232). This is very important when designing for an aging population because sometimes it is easy to view residents in assisted living as a thing rather than as individuals. By focusing on individual interests and allowing them to make choices for themselves, we are personifying them rather than objectifying.

The third theme is ‘communication and information’. This quote from their report is incredibly important, and is a huge inspiration

for my final design, “Access to information and resources is vital to aging with dignity and independence. Staying connected with events and activities and the ability to obtain timely, practical information to manage one’s life is necessary to meet daily personal needs. Yet many report being unable to find information or are unaware of supportive services to assist aging in communities” (Black et. Al. 233-34). Again, this study was conducted with community-dwelling adults in mind, but if older adults who are seen as independent are feeling this way, then it can be assumed that this is a problem across all older adult living situations. This fact was later confirmed by interviews I conducted with assisted living residents, which will be explained further in the Research section of this booklet.

The final theme I focused on was ‘transportation and mobility’. In this study, mobility refers to access around their town or local area, but can also be applied to residents in assisted living

facilities as well. Transportation is the key to being self-reliant, and when many adults can no longer drive, or choose not to because they are wary of safety issues, a huge portion of their independence is cut out of their lives.

“Participants described self-reliance as the key to both their dignity and independence and indicated not wanting to burden or rely on others for assistance in meeting their transportation needs, yet many expressed concern about future social isolation...” (Black et. Al 235). Not only does their independence get taken away when transporting themselves is gone from their lives, it also is a large factor in older adults socially isolating themselves. According to one participant, “It’s just the beginning and I don’t like what I see for the future. I don’t drive as much or as far. My world is getting smaller” (Black et. Al 235). This is a quote from someone who lives independently within their community, so it is natural to think about how lack of transportation outside of one’s home can

affect older adults in assisted living situations. This was also brought into the final design so that regardless of living arrangement, and older adult can feel as though they have the freedom to move around town as they would if they were still driving themselves.



SENSE OF COMMUNITY IN HOUSING FOR THE ELDERLY

By: Johnathan Zaff, and Ann Sloan Devlin, 1998

This article was written about the psychological benefits of having a connection to one's community, or "having a sense of community". When someone feels that they are appreciated, involved, and that they are making a difference within their community, their mental outlook is likely to remain positive and they have overall better psychological health and a better quality of life. "The elderly spend about 75% of their time inside their dwelling units" (Zaff 381). This is a shocking statistic! Because they are spending so much time in their dwellings this creates a social climate within the facility that fosters social isolation rather than maintaining social relationships, and vice versa. There are several factors that are key to having a strong sense of community. Residents must be satisfied with their physical environment, being comfortable and feeling as if they are "at home". That comfort allows them to be more motivated to interact with those around them and participate in activities that are happening on a daily basis. Social interaction

is key to feel a sense of community. Yet when the culture of the residence is being molded into one that promotes spending time in their rooms, it becomes difficult to feel that connection to the community. This article suggests that a way to get residents to create social interaction is to participate in planned activities. "The acquaintances arranged through these activities deepen the level of involvement, in turn, leading to disclosures that focus on new...areas" (Zaff 385). This essentially means that when someone goes to activities that are planned by the facility they have the opportunity to meet new people and create new relationships, thus creating social interactions and fostering a sense of community. But what happens when the activities that are planned don't interest the residents? What if they aren't fully accessible? What if the daily schedule isn't communicated to residents in a way that can be remembered or even heard? These are pain points that emerged during my

interview stage and were vitally important that they were addressed in the final design.

REDUCING THE DIGITAL DIVIDE CONNECTING OLDER ADULTS TO IPAD TECHNOLOGY

By: Julie A. Delello and Rochell R. McWhorter, 2015

This article from the Journal of Applied Gerontology looks at adults living in adult care facilities and how iPad technology can help eliminate social isolation in older adults living in senior care residences. "It is well documented that as adults age, many experience social isolation from their friends and family members resulting in psychological difficulties such as feelings of loneliness, depression, anxiety, and lowered self-esteem." (Delello 4). The psychological effects of social isolation start a vicious cycle of decreasing physical health, and due to a lack of transport or resources the health issues can add to the depression and anxiety that they have developed. In their research, they discovered that ICTs (information and communication technologies) were documented to have positive effects on older adult's general well-being. When speaking with their study participants, they discovered that a major reason that they stayed away from

technology was that the design of the technology was daunting or confusing. Specific reasons they noted were small buttons, complicated interfaces, and "fiddly" controls. These are typically hard for older adults who may not have grown up learning about technology, or have decreased manual dexterity. Mobile devices like iPads were ideal for teaching technology to older adults because their settings could be modified to the specific needs of the user. Residents participated in the study met bi-weekly to learn how to use the iPads themselves, as well as how to download apps, connect to their local library, and connect to the internet and social media. At the end of the study, 90% of participants rated their iPad use as "average to great" and would participate in further training sessions if they were offered. The attitudes of the participants in the study towards learning technology, if it is designed to accommodate their needs, is demonstrative

for how other adults in the same age range and living situation would be towards other touch screen technology.

AN UPDATE ON SOCIAL ACTIVITY AND DEPRESSION IN THE ELDERLY: A BRIEF REVIEW OF RECENT FINDINGS AND KEY ISSUES

By: Matt R. Merema, 2014

According to Merema's study, the impact depression has on older adulthood is "extensive". Attributing to patient and caregiver burden, public health costs, and an increase for vascular dementia. What he found was that social activities are particularly helpful in alleviating or preventing depression in the aging population. After doing a cross-sectional study on nine different experiments, he found a pattern that suggested that when there are higher levels of social activity, that there are lower levels of depression. This is an important finding, because it is the basis of my desire to design for this population. By designing a system that will help foster social activities, there will be a greater opportunity for older adults exhibiting signs of depression to take a hold of their mental health and start to improve their symptoms.





PSYCHOLOGY: HOW DOES DEPRESSION AFFECT THEM?

These articles focus on mental health and the effect social support has on the older adult. Mental health is just as important as physical health when it comes to having a great quality of life.

RESILIENCE FROM THE POINT OF VIEW OF OLDER PEOPLE: 'THERE'S STILL LIFE BEYOND A FUNNY KNEE'

By: Janine Wiles, et. al., 2012

This article covers a topic known as resilience. This term is typically used in child psychology, but has recently been used to examine older adults as well. There are varying definitions for resilience, in this article they have one definition for it as, “an enduring and yet fluid personality characteristic that enhances individual adaptation and positively influences the process of successful aging” (Wiles et. Al. 416). While this seems like a valid definition, others define it as “a dynamic process by which individuals respond to environmental stimuli, posited as a system which can be learned at any point of life” (Wiles et al. 417). I am more likely to accept this second definition more so than the first. Older adults have had so many life experiences, ones that have challenged them physically and emotionally, and they have been able to come out the other side. That to me shows resilience. I agree that it is a dynamic process, as some have had experiences that challenge them more than others, but that does not mean that because someone has “less challenging” life experiences

that they are less resilient. The study conducted by Wiles et. Al. interviewed 121 older adults living in New Zealand who also lived in senior care communities. The respondents were able to list various ‘resources’ or factors both internal and external that contribute to one’s level of resilience. The internal factors that were most discussed during the interviews were attitude, ‘counting blessings’, and having a purpose. For attitude, many cite that being positive and not dwelling on negative issues is an important factor in remaining resilient. When discussing ‘counting blessings’ they go to say that it is important, especially in times of adversity, to be thankful for what they have and not to worry too much about what they don’t. Many respondents included their Christian beliefs as a motivating force for counting their blessings. Finally, they discussed having a purpose in life. Many of the adults they interviewed (both in focus groups as well as one-on-one settings) said that being with other

people was the best way to extend life. An example, one of the focus groups was comprised of members of a gardening group. The group meets regularly to work in the garden together and it makes them feel as if they are making a valuable contribution to their space as well as feel good about being around other people for a period of time. The biggest and most frequently talked about external resource was having social resources. One interviewee had this to say, “Health’s number one. Friends is number two.” (Wiles et al. 421) noting that having an active social life is equally important as their physical health. It is the theory of resilience in older adults that is so important to my design. By giving access to social opportunities to older adults living in assisted living centers, gives them a chance to become more resilient, and thus improve quality of life.

PERSONAL MEANING, OPTIMISM, AND CHOICE: EXISTENTIAL PREDICTORS OF DEPRESSION IN COMMUNITY AND INSTITUTIONAL ELDERLY

By: Gary T. Reker, 1997

This article by Reker is one of the first that I read in relation to my topic. It takes on a psychosocial approach to mental health of the older population, and discusses factors of someone’s life that may lead to either a major or a minor case of late-life depression. Reker begins by saying that in contrast from early onset forms of depression, that late-life depression is less influenced by genetics, and more influenced by environment (situation). Part of the psychosocial model of mental health that he uses to examine the older adults posits that several factors contribute to older adults getting late-life depression. Those factors include: loss of self-esteem, loss of meaningful roles (having no work productivity since retiring), loss of significant others, loss of social contact due to health concerns and financial limitations, dwindling financial resources, and a decrease in coping mechanisms for stress or other emotions. His study looked at both older adults living independently in the community, as well as older adults in senior care facilities.

These factors were pointed out in both populations of older adults – community dwelling as well as residents of senior care residences. As I narrowed down my topic to focusing on assisted living residents, the residents (what he terms as ‘institutionalized elderly’) were what I focused on more during my examination of this article, and ultimately my thesis project. The results of his study yielded that adults living in senior care facilities, “were found to be significantly more depressed, had a lower sense of personal meaning, perceived less choice, were less optimistic, had fewer meaningful social contacts, and were in poorer physical health” (Reker 711). His conclusion after the study was completed showed, “the importance of personal meaning, choice, and optimism in the prediction of depression in community and institutional older adults” (Reker 714). Similar to the results of Black et.al’s article, the importance of meaningful social contact is noted for the betterment of an aging adult’s

quality of life. The hypothesis I had made that older adults in assisted living facilities are in need of more socialization was supported by this article as well as others in my preliminary research. It brought me to asked questions about what causes adults to feel so isolated in their individual facilities. Did it have anything to do with the culture of the place? Was it simply an individual’s actions that caused their isolation? These were important questions to have answers to, as it would have a significant impact on the final design and its functionality.

SOCIAL SUPPORT MEDIATES LONELINESS AND DEPRESSION IN ELDERLY PEOPLE.

By: Lijun Liu, Zhenggang Gou, and Junnan Zuo, 2016

This study conducted in China examined how older adults exhibiting symptoms of depression.

They wanted to see what might be able to reduce these symptoms and improve the mental health as well as quality of life for older adults.

“Studies subjects with depressive symptoms and depression suggested that both are associated with intense loneliness, less perceived social support, poor physical condition, and high perception of poor health status” (Liu 750).

This means that actual isolation, or at the very least perception of being isolated is causing older adults to exhibit symptoms of depression.

In their primary research, they found that loneliness and diagnosed depression are positively linked. They found that depression was also linked to poor quality of life, and negative emotions. So how did they approach this problem? They concluded that at its core, loneliness can be defined as either qualitative or quantitative deficiencies in social relationships.

They categorized two types of loneliness: emotional and social. Emotional loneliness is

caused by a lack of an intimate relationship with another person, while social loneliness is caused by not having a social network of people with common interests. For their own study, they provided social support to older adults exhibiting depressive symptoms. In this case, “social support” is defined as “the perception that one has assistance available, receives actual assistance, or is integrated into a social network” (Liu 751).

At the end of their study, conducted with 320 participants, they found a positive relationship between loneliness and depression, and that older adults who have high levels of loneliness are more likely to develop more serious depressive symptoms.

They also concluded that “social support is a potential protective factor for lonely elderly persons” (Liu 756). Thus, when using this study in relation to my own project, it backs up my theory that social interaction is helpful in mediating depressive symptoms in older adults.



DESIGN: WHAT CAN WE AS DESIGNERS DO TO HELP?

Now that both the demographic population and the psychology of older adults have been examined, it is time to look at the design considerations that are needed when designing for an aging population.

INCLUSION AND INTERACTION: DESIGNING INTERACTION FOR INCLUSIVE POPULATIONS

By: Patrick Langdon, and Harold Thimbleby, 2010

This article discusses the need for inclusive design when designing interfaces. When designers are creating interfaces, we focus on the “user”, but “often the ‘user’ is rarely precisely specified demographically, and rarely described in a way that represents the variance in abilities” (Langdon 439). Therefore, by learning more about inclusive design and narrowing your focus to specific demographics for different projects, you can design a more effective interface. In the case of this article, Langdon talks about older adults, noting several factors that need to be considered when creating an interface that will be used by older adults. One factor he discusses is that as adults age, “between the ages of 45 and 75, there may well be significant loss of static and dynamic visual activity and contrast sensitivity, color vision, focusing and adaptation to the dark” (Langdon 439). Because of these health factors, the interfaces’ design will need to take them into consideration so that all the elements on the screen are clearly visible to users in this

demographic. Other important guidelines to keep in mind when designing an inclusive interface are to create special purpose for the design to solve issues with potential needs, customizable designs so that they can be changed based on specific needs, and creating ‘user aware’ design that extends design of mainstream products to accommodate to as many users as possible. Langdon suggests that when approaching a new design project, to think of the specific populations first and what they might need in the design, then think of the generalized population. This way the design will include to the largest audience possible instead of excluded specific populations like older adults who may have certain needs of the interface.

KEEPING IN TOUCH: TACTILE INTERFACE DESIGN FOR OLDER USERS

By: Victoria Lynne Claypoole, et. al., 2016

This article written by Claypoole, et. Al. outlines nine practices for interface design so that it can be inclusive for older populations. They focus on “tactile-interface” or touch screen applications that older adults can interact with, and that due to the growing presence of touch screens in our world, they give these guidelines so that older adults can easily understand and use the interfaces and touch screen devices. Their first guideline is to “make it easy to find important information”. By centralizing icons (literally) and put them in the middle of the view designers are allowing them to focus on what is most important. Older adults can have issue with periphery of vision and by placing targets right in the center you are ensuring that they are not missing aspects of the interface. The second guideline is to allow for other forms of input besides touch-only. Typing on a touch keyboard can prove difficult for older adults. Therefore, allowing for hard keyboards and a mouse to also be used for input on the interface is important for successful

usage by older adults. Third, it is important to design functionality after normalized mental models. By creating functions in the interface that reflect how one would perform the same task in the real world, it becomes easier for older adults to understand what is being asked of them through the interface. Next, allow the interface to accept imprecise touches. Older adults will have difficulty touching small targets, so by allowing a larger radius for response, it will be easier to use. Other design guidelines include: being transparent about what functions that buttons will do, keep designs simple and uncluttered, and choose appropriate fonts, colors and sizes for elements on the interface screens. By following these guidelines, a designer can create an interface that is inclusive for older populations to use, and will hopefully encourage them to embrace future touch screen interfaces that they come in to contact with.

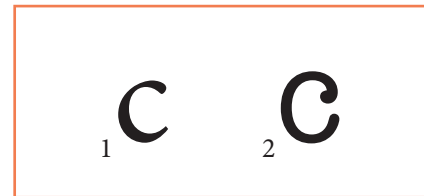
DESIGN EXAMPLES

TYPEFACE



Look for typefaces that have distinct letter forms, and can easily be distinguished from one another.

Also be sure that there are wide horizontal proportions, as this will help with readability.



Look for typefaces with low stroke contrast, and consistent stroke weight.

The letter “c” on the left is an example of low stroke contrast, and the “c” on the right is an example of high stroke contrast.

1- Minion Pro

2 - American Typewriter

MORE TYPEFACE GUIDELINES:

- Pronounced ascenders and descenders
- Pronounced counters (the shapes inside the letter forms like those found in “o” or “e”)
- Distinct apertures (the openings in letters like those found in the letters “e” or “n”)
- Older adults can read 10pt font, but having a 12pt or above is preferred.

Only when absolutely necessary, use fonts smaller than 12pt.

These are tips and tricks for designing for an aging population. These will allow for maximum readability and understanding of a design.

OTHER DESIGN GUIDELINES

- Use concise and plain language
 - Establish a clear visual hierarchy
 - Sort text into smaller, logical chunks
 - Avoid visual clutter
 - Do not rely on color to communicate information.
- Not all colors are as easily seen by older populations.

EXAMPLE:

designing with a grid

Grids are used when designing a page layout. Page layouts are found in magazines, newspapers, posters, anything that is printed!

Some grids are simple, and some grids are more complicated. It all depends on what you are designing!

why use a grid?

- Grids organize your content
- Grids help to visually plan the space you are filling
- Grids create a flow for the reader

Wide Horizontal Proportion

Sort text into small chunks

Distinct Aperture

Pronounced Counter

Visual Hierarchy

* The information found on this spread is sourced from “Exhibitions for Adult Care Facilities: Design Tips and Tricks” 2016, Michael Flanagan and Rebecca Mushtare



ANALYSIS & SYNTHESIS

In the fall semester of 2016, I spent time conducting preliminary research and developing the idea for potential design solutions for the aging population.

During the Analysis and Synthesis process, it is customary to approach a potential design topic with both divergent and convergent thinking. The divergent approach allows us to accept many ideas and concepts that could potentially lead to a design solution. After thinking broadly in the divergent phase, convergent thinking is what narrows down the thought process to find more specific ideas to consider for a final design. This process is likely to repeat itself several times before a designer is ready to move forward with a potential design solution.

HOW THE WORLD IS AGING



APPROXIMATELY 15% OF ADULTS AGED 60 AND OLDER SUFFER FROM A MENTAL DISORDER [29].

NORWAY

A Norwegian study reported that prevalence of depression increased with age.

Of Norwegians 80 years and older, depression was reported in 20%. [3]

CHINA

In 2016 a study was found that there is a positive relationship between depression and loneliness.

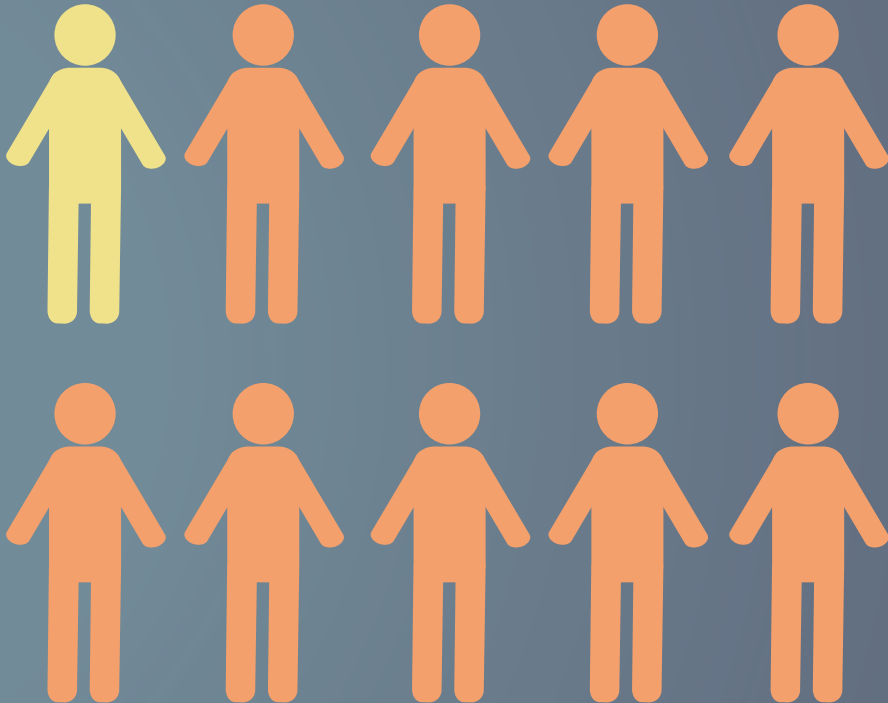
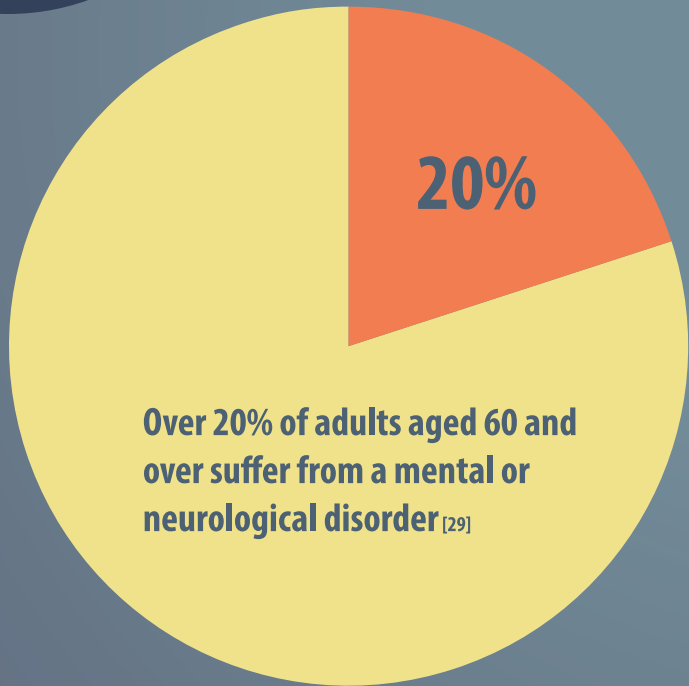
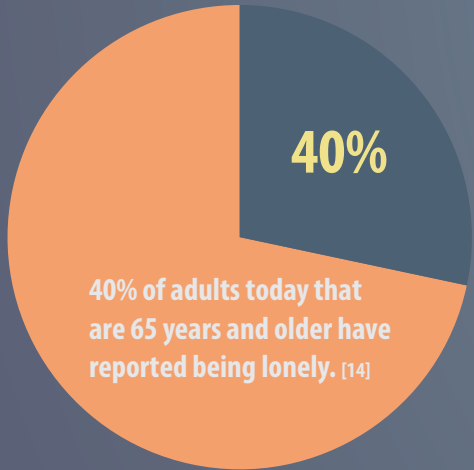
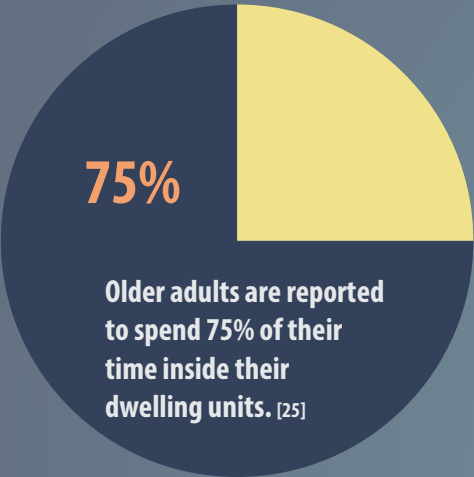
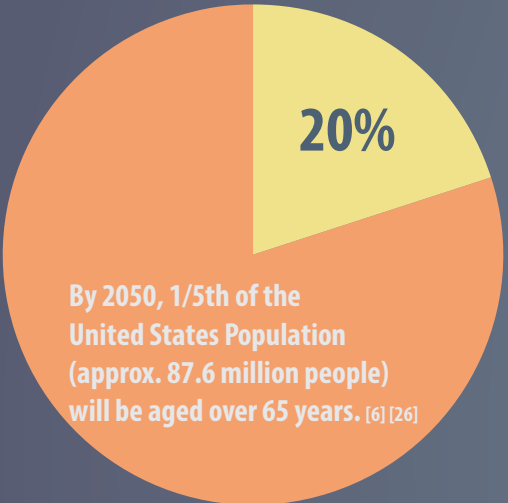
If older adults find a larger social support system, they are likely to improve their depressive symptoms [14].

TURKEY

In a 2017 Turkish study, researchers use group therapy to treat depression.

Treatment of geriatric depression is key to improve quality of life among older adults [7].

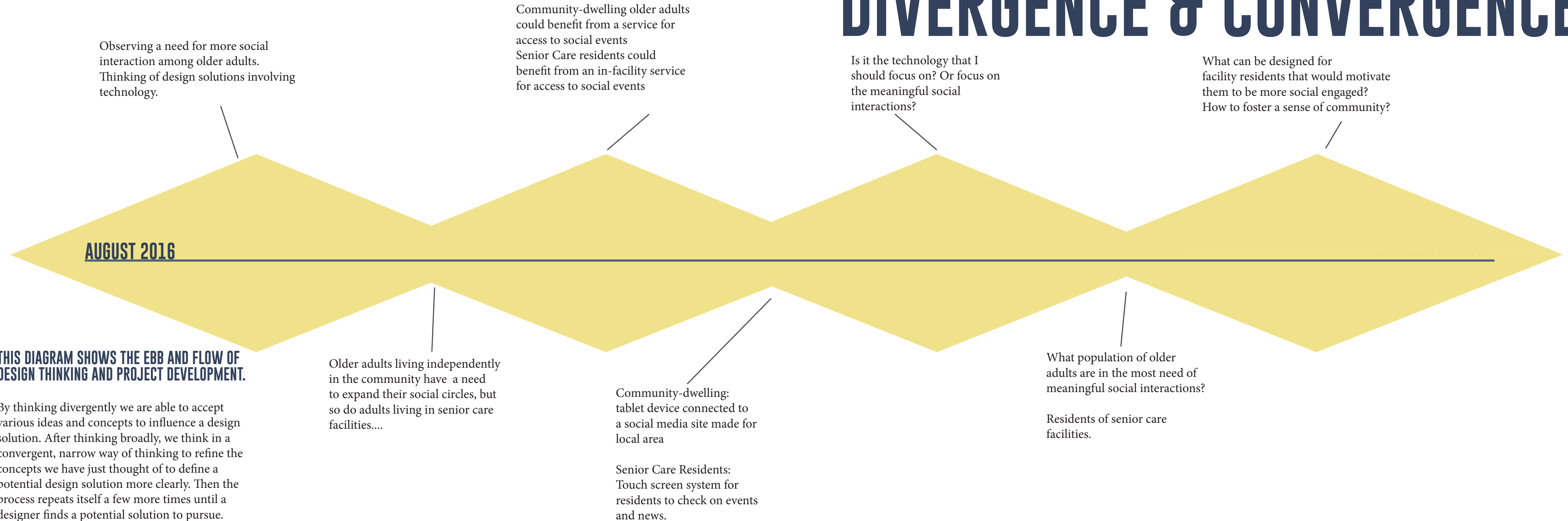
MODERN STATISTICS ON AGING



1 in 10 older adults experience elder abuse [29].

Elder abuse can lead to both physical and long-term psychological consequences, including depression and anxiety.

DIVERGENCE & CONVERGENCE



THIS DIAGRAM SHOWS THE EBB AND FLOW OF DESIGN THINKING AND PROJECT DEVELOPMENT.

By thinking divergently we are able to accept various ideas and concepts to influence a design solution. After thinking broadly, we think in a convergent, narrow way of thinking to refine the concepts we have just thought of to define a potential design solution more clearly. Then the process repeats itself a few more times until a designer finds a potential solution to pursue.

RESEARCH



Once the synthesis and analysis phase of the project had been completed, it was time to move forward with research on a potential design solution.

This section depicts the steps taken to explore this possible design solution.

RESEARCH PROBE



Examples of card used in research probe

While awaiting on the approval from the IRB, I began to think of ways to learn about resident's social lives. I decided that finding out what a typical daily routine looked like would be a good way to find areas that could be improved with a potential design solution.

I created a research probe that involved a set of cards with depictions of daily activities on them. These cards are three inches by three inches - large enough to be easily held, and also large enough so that text and imagery could fill the card and visible to someone with impaired vision.



These color swatches are the ones used on the various research probe cards.

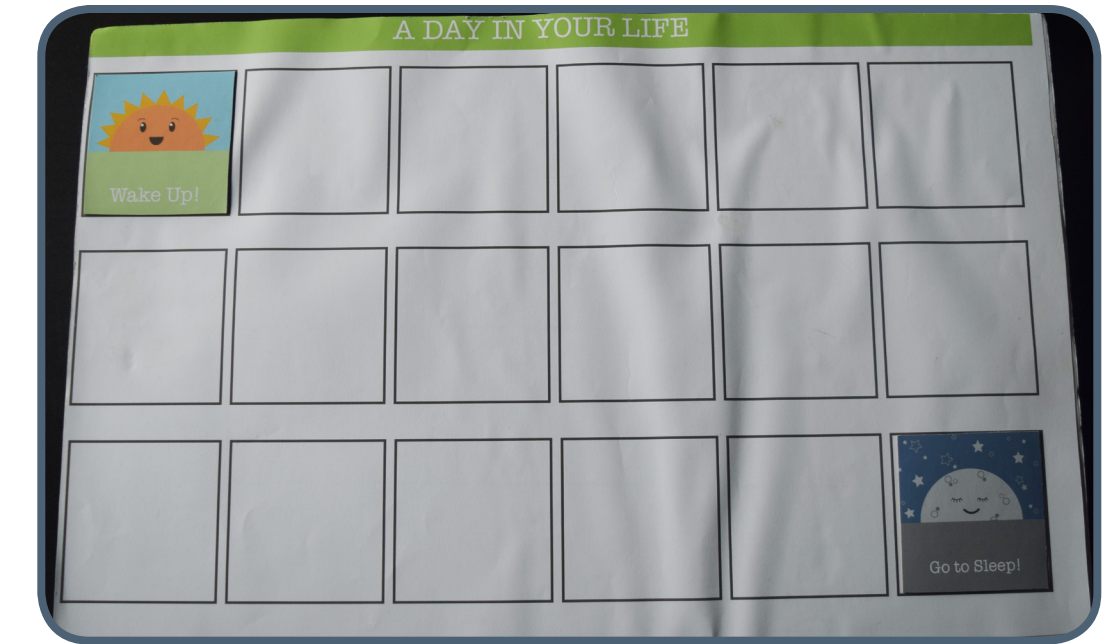
COLOR

When deciding on color choices for these research probe cards, I wanted to use ones that were bright. In a past design project in collaboration with Museum Studies students we learned that as eyes age, they tend to add a yellow tint to what they see. With the use of bright colors, the cards are more distinguishable from one another. Another reason was for my own benefit. The bright colors made it easy for me to identify patterns of activities from looking down at the cards after the interviewee had laid them out.

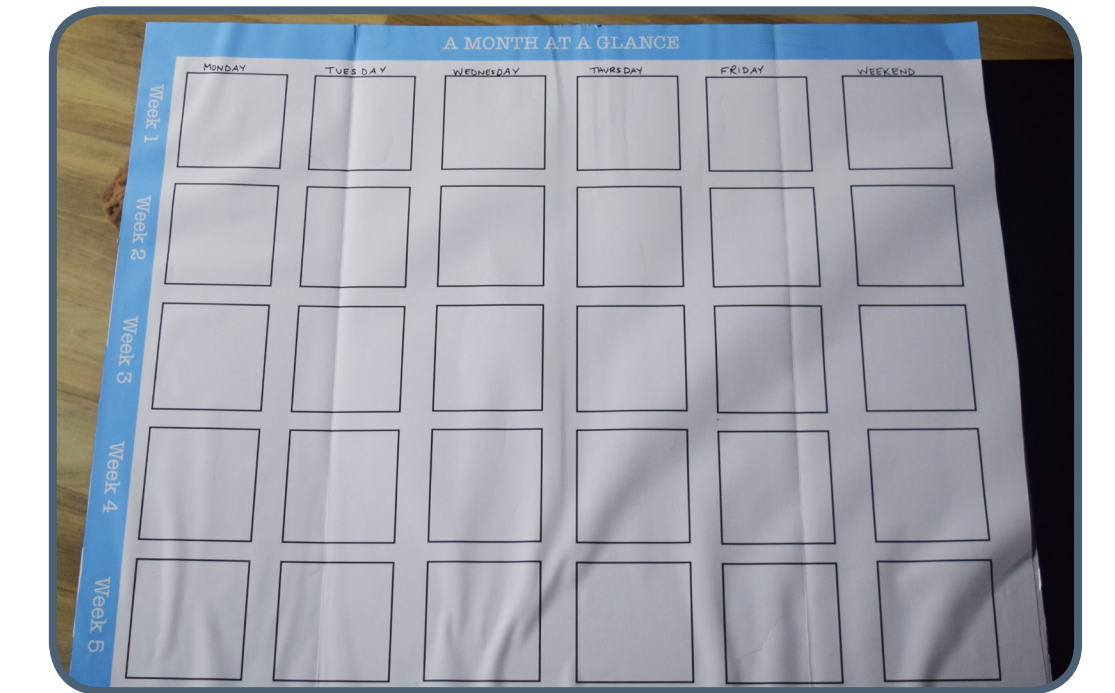
TEXT USAGE

The text phrases used on the cards were left intentionally vague. This allowed me to probe further about a certain activity and ask them to discuss more about it. For example, one card simply said, "exercise". If a resident placed it down, it would then prompt me to ask them, "What kind of exercise do you do?" - thus expanding the conversation and allowing for a more detailed look into their life.

The font I chose for the text was a serif font, a "typewriter" style, and a large point size to make the copy easier to read.



caption



DAY BOARD

The board where residents placed their routine cards has two sides.

The first side is to track the daily activities, or at least on a typical day in their week. The board is designed with a “Wake Up” image in the very first slot on the board, indicating the start of their day. After this image, there are several blank squares for the probe cards to be placed on, similar to placing a game piece on a board game square. The very last spot on the board is filled with a “Go to Sleep” image. This indicates the last thing that they do in their day. Aside from these two prompts that are fixated on the board, there are no other instructions on what direction to place the cards in. This is because I wanted the interview sessions to be semi-structured. This meant that I wanted to guide the conversation just enough, allowing the interviewee to be able to talk to me about anything they felt comfortable to discuss. By keeping the board simple, it allowed me to have as much or as little control over the interview as was warranted.

MONTH BOARD

The opposite side of the board is the monthly view. This side was included after it was suggested by the director of family services at the facility I conducted my research at.

Prior to interviews, I spoke with the director about her impressions of activities in the residence, and she mentioned that there is no such thing as a “typical” day, since each day could be different dependent upon how active the resident is. By creating a monthly view of the board, it allows for residents to talk about activities or events that may only happen once a month. This added to my research, because I was able to get a more complete picture of each resident’s life.

The monthly board is set up by having days of the week on the X axis of the grid, and week numbers listed on the Y axis. Because each month varies in the amount of days it has, I didn’t want to include numbered days, but rather this simplified version of a monthly calendar view so that as the conversation flowed, the cards could be placed in a way that made sense to the resident.

“HAVE TO” ACTIVITIES

As the name suggests, these activities are ones that a person has to do during the day. Most of these activities include personal care and medical treatments. If a resident showed in their daily routine layout that the majority of the activities they partake in are “have to” activities, it could mean that resident is isolated and in need of more social interactions.

“CHOOSE TO” ACTIVITIES

These activities are ones that a resident might choose throughout the day that go beyond serving basic needs. All of these cards represent recreational activities. If a resident showed in their routine layout that there were more “choose to” than “have to” activity cards, it could indicate a couple of things. 1) The resident is getting a sufficient amount of social activities and that they are quite active. Or 2) The resident is neglecting their “have to” activities and must find a balance. For the second, it all depends on the level of medical care that the resident needs throughout the day.

WHEN EVALUATING THE DATA, IT WAS IMPORTANT TO NOTE THE TYPE OF ACTIVITIES THE RESIDENTS ARE PARTICIPATING IN. THUS, I DIVIDED UP THE ACTIVITY CARDS I CREATED INTO TWO TYPES: “HAVE TO” AND “CHOOSE TO” ACTIVITIES.

The cards with these colors indicated a **“have to”** activity. They indicate:

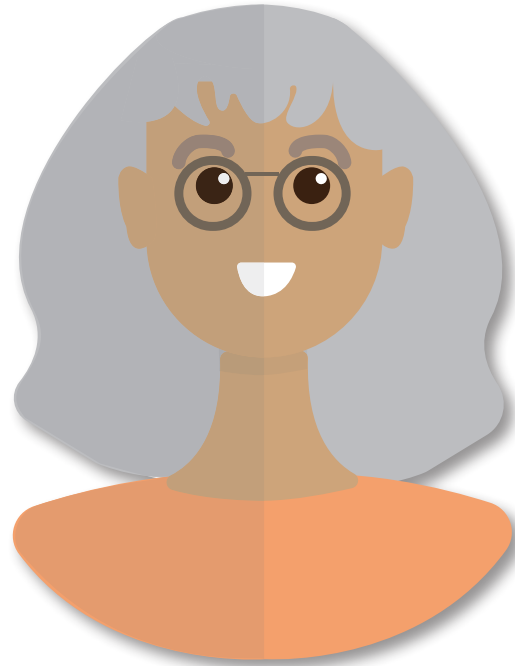
- Meals
- Snack
- Treatments/Take Medicine
- Personal Hygiene
- Rest and relaxation
- Doctor’s Appointments

- Enjoying Music
- Excursions
- TV Time
- Talk with Friends
- Talk with Family
- Fun and Games

The cards with these colors indicated a **“choose to”** activity. They indicate:

- Group Activity on their floor
- Group Activity NOT on their floor
- Exercise
- Special Event
- Individual Religious Observance
- Group Religious Observance

INTERVIEWS



EDITH

Edith's daily timeline that resulted from this interview can be found on pages 26 and 27 of this booklet.

Edith is an older woman who has been living in assisted living for fifteen months, and whose age is undisclosed. "I'm going to count backwards from now on!", she told me while we sat in her living room.

"So what would you like to know?" she asked. I told her to tell me about the kinds of things she might do on a typical Friday, which was the day of the week the interview was happening. Edith told me about her day thus far, and about her family. She sees her family pretty regularly, but not as regularly as she'd like.

I ask her to tell me about what kinds of planned events she attends in a day, and throughout the week.

Once a week she attends a community discussion group, as well as a residence committee meeting. At these meetings

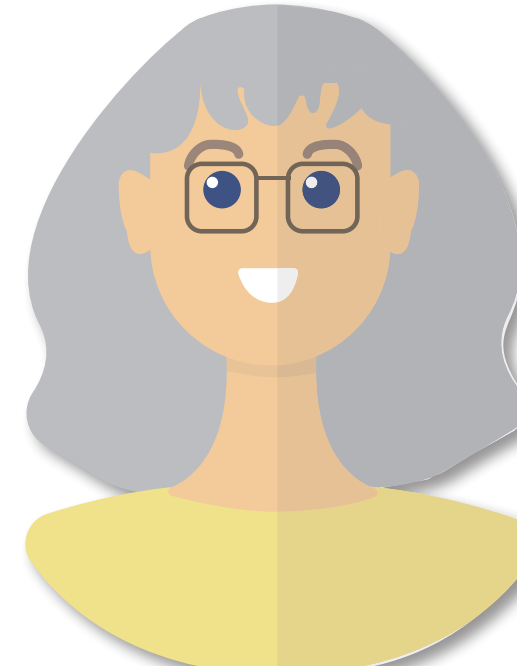
attendees talk about service projects they can do to stay more active at the facility, and in the area and compile any complaints that they may want to have addressed, respectively.

She frequently attends music events that are planned, and happy hours in the common areas.

Edith is a social person, attending facility-planned events very frequently, but she also valued her alone time to relax.

She is an avid reader, despite some visual impairment, reading both newspapers as well as books.

Because of the interests she shared with me, aspects of the final design will be tailored to highlight those interests. Edith is a moderately active person, and that activity level will also be a factor of personalization for her in the final design.



JUNE

June's daily timeline that resulted from this interview can be found on pages 26 and 27 of this booklet.

June is 91 years old, and proud! We sat at her dining table and talk, it is after her lunch and she is glad to be sitting again. Her walk from her room to the dining room and back becomes a tiring feat, and she needs a little rest before getting back up again.

She is excited to talk with me. When she tells me about her day, she is very detailed; from telling me about how many pills she takes to the order in which she gets dressed.

Even though she needs to rest between activities, she likes to attend facility-planned events. Particularly, Bingo which happens twice a week. She shows off her Bingo prizes to me, many stuffed animals and trinkets.

June feels limited in the activities she can attend at the facility.



She goes to Bingo and weekly church services,

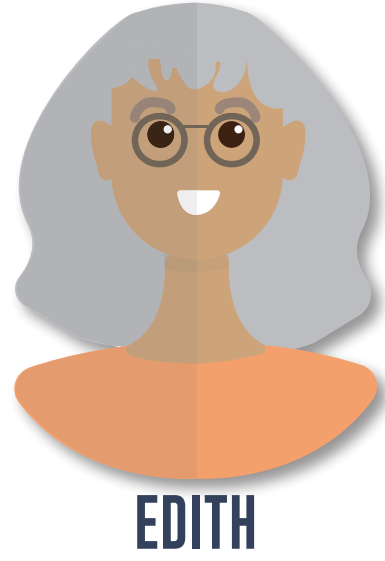
but has little interest in the other planned activities that are available. She also has a hard time hearing the daily announcements made in the dining room every morning. Besides a small paper calendar, this is her only way of staying informed of the goings-on around the place.

Based on June's interests in Bingo and church services, the interface would be tailored for her to find these activities.

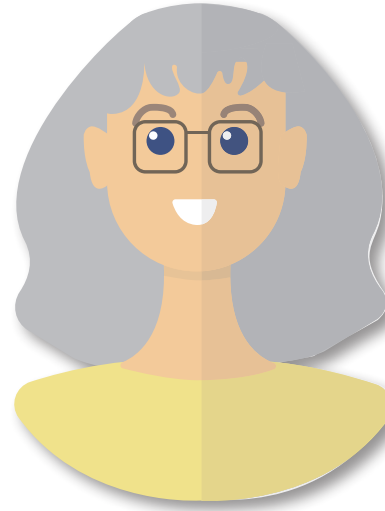
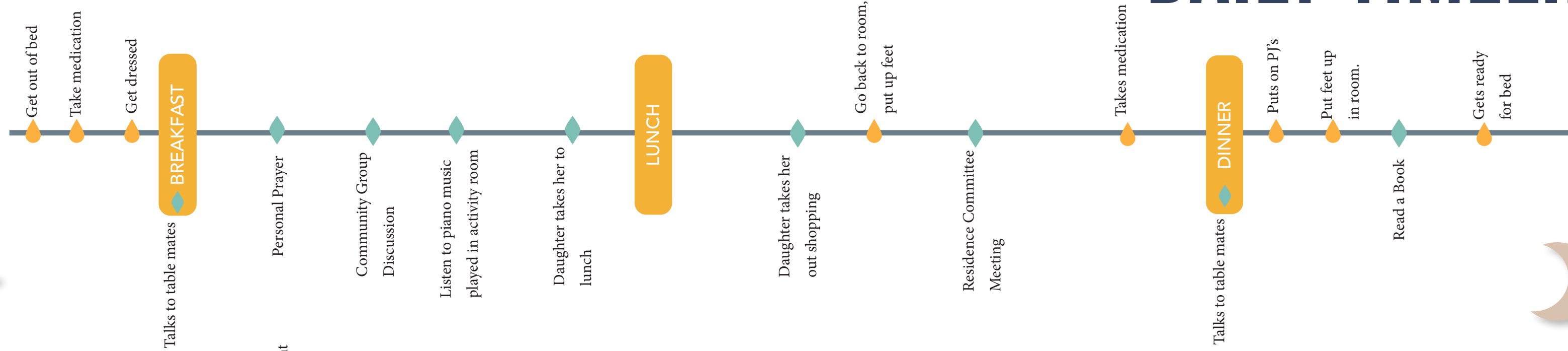
Other areas of personalization to her will include providing a hearing device at activities and notifying her when off-facility events will have hearing devices available for use, and taking her personal activity level in account when making suggestions for possible activities to attend.

DAILY TIMELINES

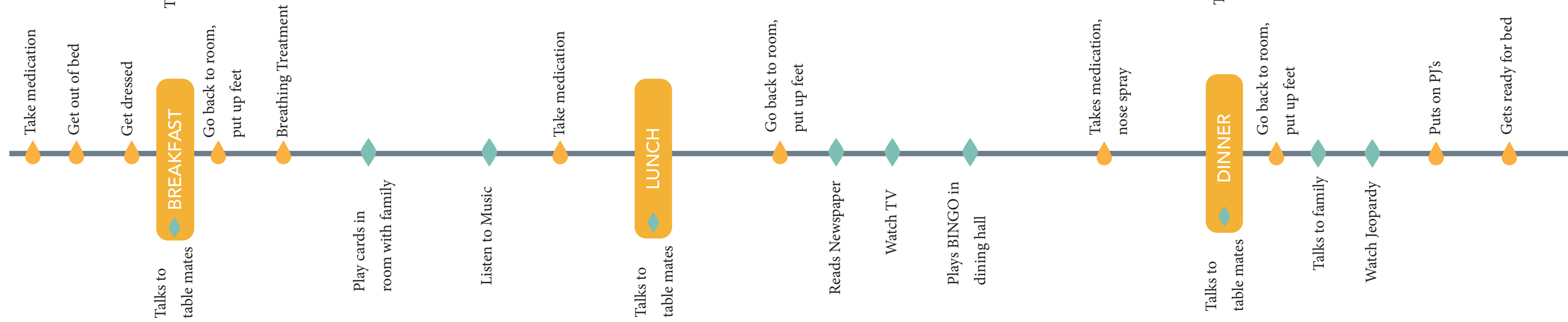
KEY:  "Have to" Activities
 "Choose to" Activities



EDITH



JUNE



FINAL DESIGN



After analyzing the results from my interviews and using the primary literature resources to supplement what I found, I began to ideate potential design solutions for the problem that social isolation can be.

I sought to design a solution that would entice residents to come out from their rooms at the very least once a day to check in at a place somewhere within their facility. This solution would allow them to find activities to partake in and be out in the common spaces with others while this check-in is happening.

The final design solution uses a custom interface that can be easily taught to residents and staff alike, and is fun to use!

SOCIAL HUB:

A SOCIAL INTERFACE & SYSTEM TO FACILITATE SOCIAL SUPPORT FOR OLDER ADULTS

The design solution that I believe is the best to facilitate social support systems is the Social Hub. The Hubs address the design problem in several ways: making information easily accessible, allows for independence and choice, is personalized to tailor the Hub experience to each resident, and allows staff a way to keep track of physical and emotional health of their residents.

INFORMATION IS ACCESSIBLE

In many current assisted living residences, activity calendars are handed out at the end of every month to inform residents of the upcoming month's activities that have been planned. The issue with these is that they are easily lost, and typically printed small, which can be hard to read. These paper calendars are supplemented by announcements made over the PA system or announced in the dining room each morning. This allows for miscommunication of information which makes attending planned activities difficult.

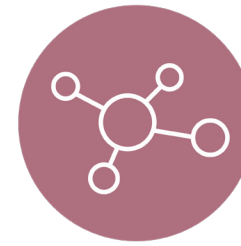
By creating a place to facilitate social interactions, residents have more opportunities to create more meaningful social interactions. Once a resident logs in with their fingerprint, they are taken to a home screen that allows them to choose from several menu options where they can choose where and what type of activity they'd like to participate in.

TECHNICAL FUNCTIONS

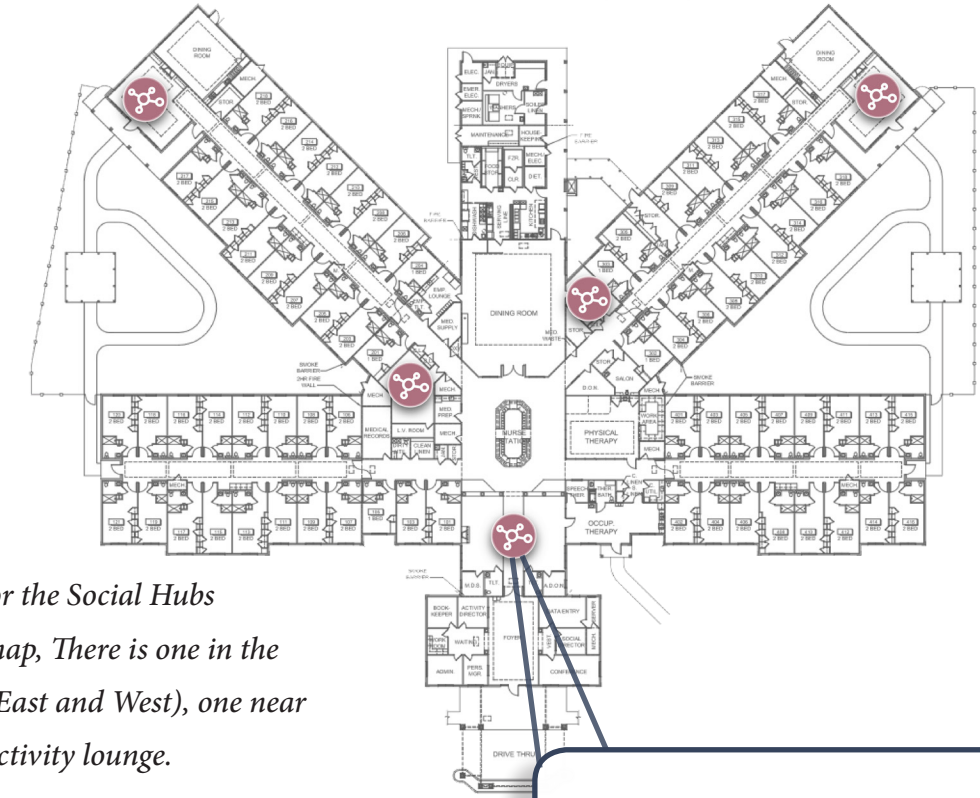
This appearance of the interface uses pastel colors, this is different from those used in the probe, because according to research, pastels are easy to see and attractive for older adults. The more attractive it is to interact with, the more people are enticed to use it. The touchable screen is equipped to scan and read fingerprints of each of the residents so they can "log in" to the system and receive personalized activity recommendations based on past activity usage. The more a resident uses the interface, the more accurate the recommendations will be.

CHECKING IN AND KEEPING TRACK

In addition to personalized activity recommendations, when a resident "logs in", they have a check-in screen that allows them to click on a smiley faced lichert scale to check-in on how they are feeling that day. This information is recorded and kept track of by nurses and medical staff to follow a resident's progress both emotionally and physically. If a resident has checked in for the day by answering the question: "How Do You Feel Today?" with 'feeling bad' or "feeling very bad", a nurse is sent to check in with them personally to find out why they are feeling badly and to offer extra assistance. The data compiled from the daily check ins at the Hubs can be used to increased personalized care and boosting morale of the residents.

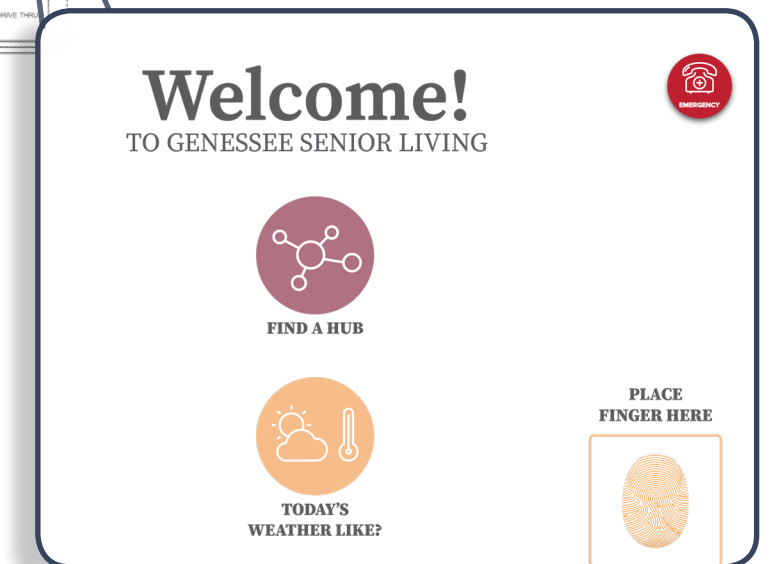


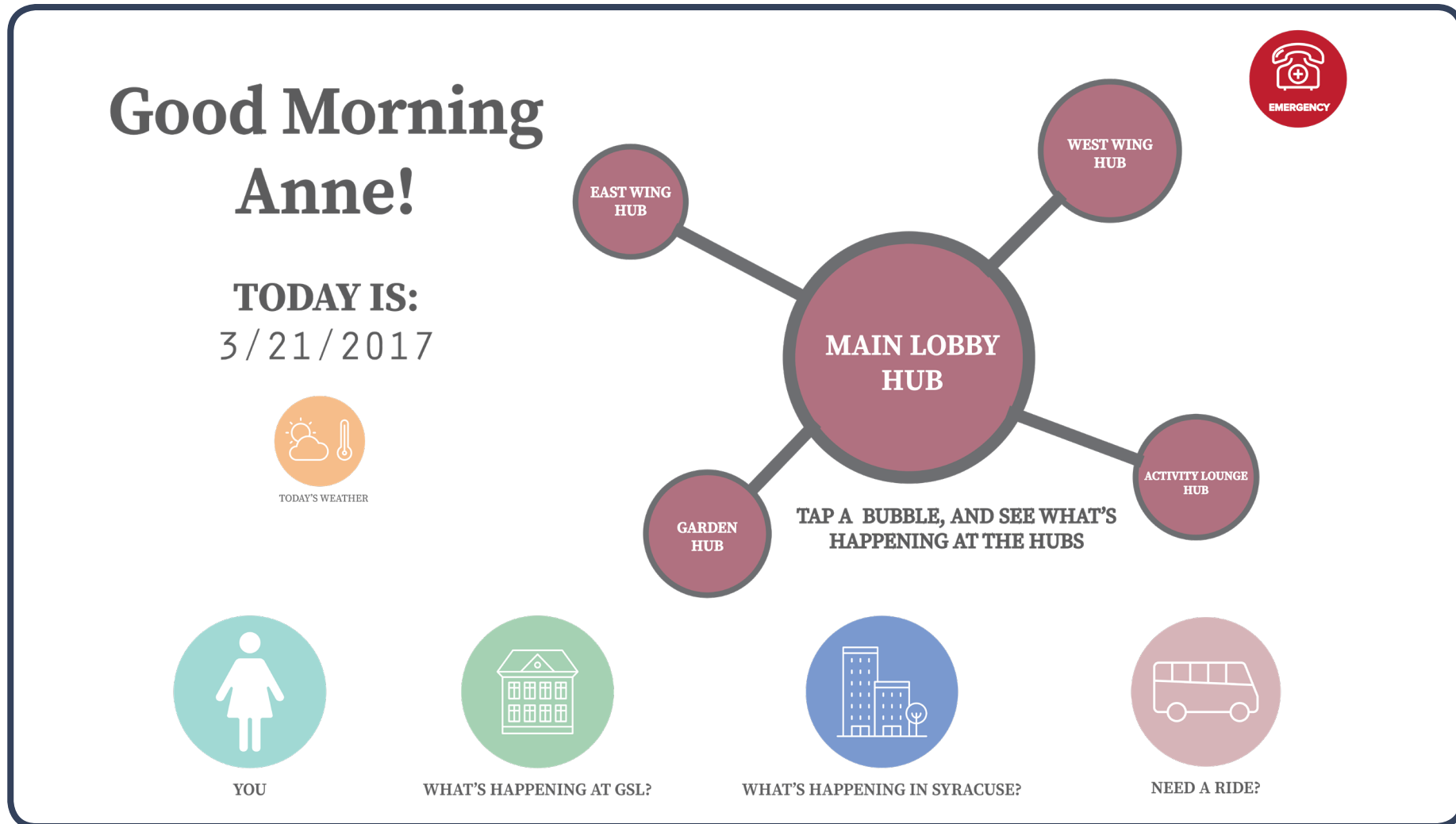
WHERE ARE THE HUBS?



Above is an example map of placements for the Social Hubs within an assisted living facility. On this map, There is one in the main lobby, one in each residential wing (East and West), one near the outdoor garden area, and one by the activity lounge.

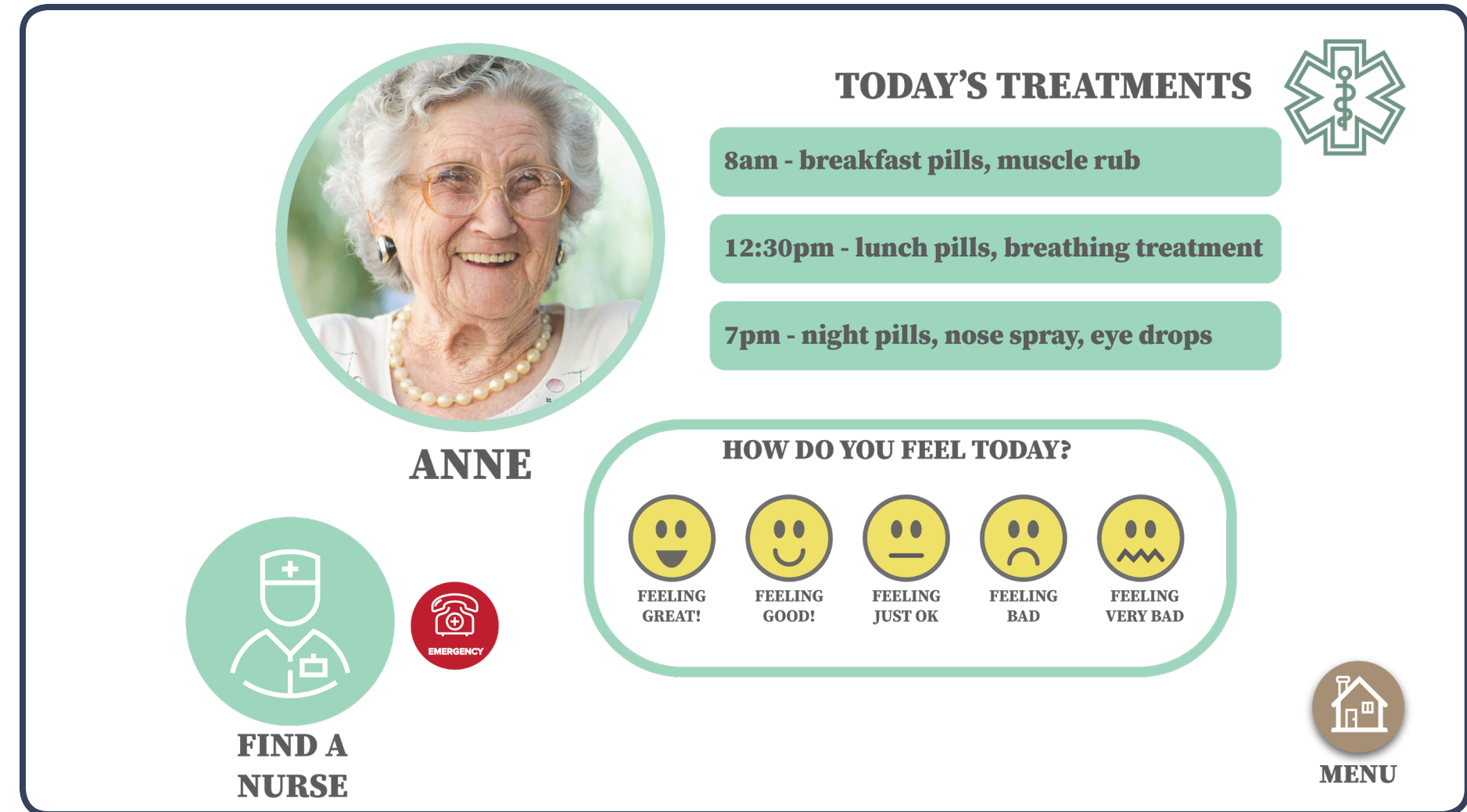
To the right is what is displayed on the Hub screen prior to log in. Anyone is able to find a hub in the building, check the weather, or call for help in an emergency without having to log in. This allows visitors to call for help in the event of witnessing an emergency in the facility.





PERSONALIZED MAIN MENU SCREEN

After the fingerprint scan, the Hub takes a resident to this screen. It greets them with a “Good Morning/Afternoon/Evening” message and the day’s date. Users can check what’s happening at each of the specific hubs for the list of activities taking place there that day. If they want a more selective list, they can click the green button to get the personalized recommendations the system has curated for them. The same can be done for the local area button (blue, and in this case, Syracuse). Users also have the option to check weather, and call for an emergency if need be.



PERSONALIZED CHECK-IN SCREEN

When a user clicks the “you” button on their main menu screen, they are taken to this screen. At the top is are the check in ‘smiley’ buttons for users to press with their daily update. Below the check in buttons, there is a list of treatments that user needs throughout the day. This is included so that users can plan around these times if need be. In addition to the treatment list, is a function to find the closest nurse’s station to the hub the person is at. When the button is clicked, it takes them to a map of all of the stations, but highlights the closest and gives wayfinding directions.



WHAT WOULD YOU LIKE TO DO TODAY?

4/14/2017



Religious Meetings



Fun & Games!



Musical Activities



WANT MORE OPTIONS?
TRY SOMETHING NEW!



MENU

PERSONALIZED ACTIVITY MENU SCREEN

When the user clicks the button to view activities in the facility, they are taken to this screen. It shows them the three most common searches they've done in the system over time and suggests them first. They can then click on one of the buttons to see a list of all of the events of that category for the day. If they would like to take part in a different kind of activity than their most frequented, they can view the full category list by pressing the green button at the bottom of the screen.



GROUP MEETINGS

THANK YOU!

You have expressed interest in the **food committee meeting!**

We'll save you a seat!

FOOD COMMITTEE MEETING
10a - 11:30a - East Wing Hub



MENU

ACTIVITY SIGN-UP CONFIRMATION SCREEN

After a resident has found an activity they'd like to go to, they can then reserve a spot if there is a limit to participants, or just let the facilitator know that they expect to be coming. This screen gives them a confirmation and reminds them of the time and place of the activity they chose.



TODAY'S EVENTS IN SYRACUSE

4/14/2017

TAP A BUTTON, EXPLORE THE TOWN!



Religious Services



Cultural Activities & Other Fun!



Music Concerts & Music Groups



Theatre & Stage Shows



Reading Groups



Movies & Entertainment



Exercise



Parks & Outdoor Recreation



MENU

LOCAL AREA EVENTS MENU

If a resident is looking to go out into town that day, they can see what is going on in their local area. In this case, that area is the Greater Syracuse Metropolitan Area. The category buttons show types of events people can go to, and after time, these categories will be personalized to the user like the facility-planned activities are. Each category leads to a map view of the Syracuse (or local) area and points to the location of events taking place that match that category.



TODAY'S EVENTS IN SYRACUSE

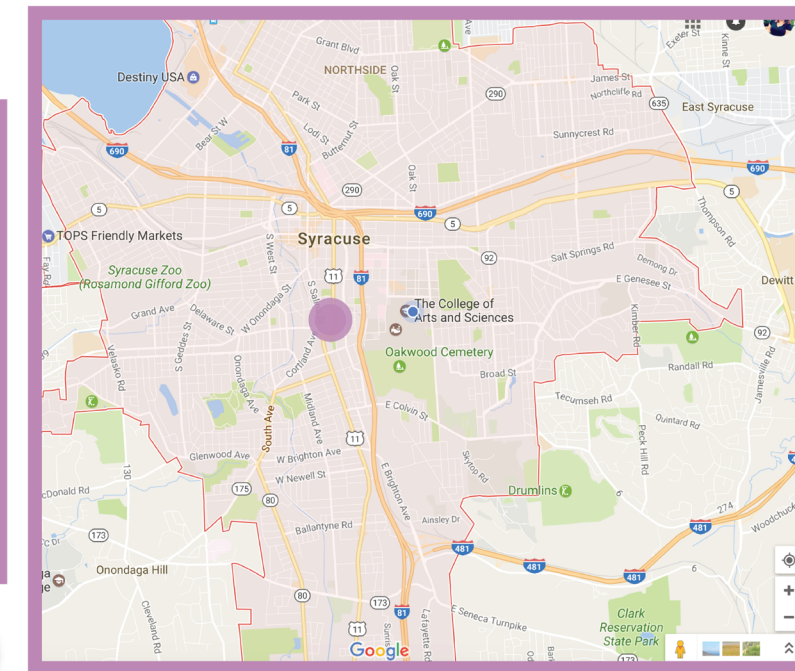
4/14/2017

Free Bowling!

Genessee Lanes

11am - 2pm

* Canned good donations are encouraged in place of bowling cost *



powered by Google



MENU

EXAMPLE EVENT AND MAP SCREEN

After an event is chosen, the user is given the contact information, times, and address for the event, as well as any instructions they may need. In this case, this screen shows a free bowling opportunity as the event they have an interest in. If they wanted to attend one of the classes listed, they would need to call the instructor at the number listed on this screen. This relieves a bit of the burden from facilities as well as giving back some independence to the resident. From here, if they are in need of a ride, they can press the teal button under the map to be taken to the ride share screens and can organize a ride for themselves.



RIDE SHARE PROGRAMS

4/14/2017

Your assigned
rideshare company is:
SENIORS ABOUT TOWN



TAP TO ARRANGE A RIDE!



MENU

PERSONALIZED RIDE SHARE SCREEN

This is the screen for the ride share system. Each resident of the facility is assigned a specific ride share company that has partnered with the facility to provide transport for residents. This resident has been assigned the company "Seniors About Town". To arrange a ride appointment, they would click the green button and be taken to a screen to input their information (name, preferred time of pickup, destination) and schedule their ride.



THANK YOU!

YOU HAVE CONFIRMED A RIDE APPOINTMENT

WITH: SENIORS ABOUT TOWN

YOUR DRIVER IS: GINA P.

**TO CANCEL THE APPOINTMENT, PLEASE CALL
315-442-7334**

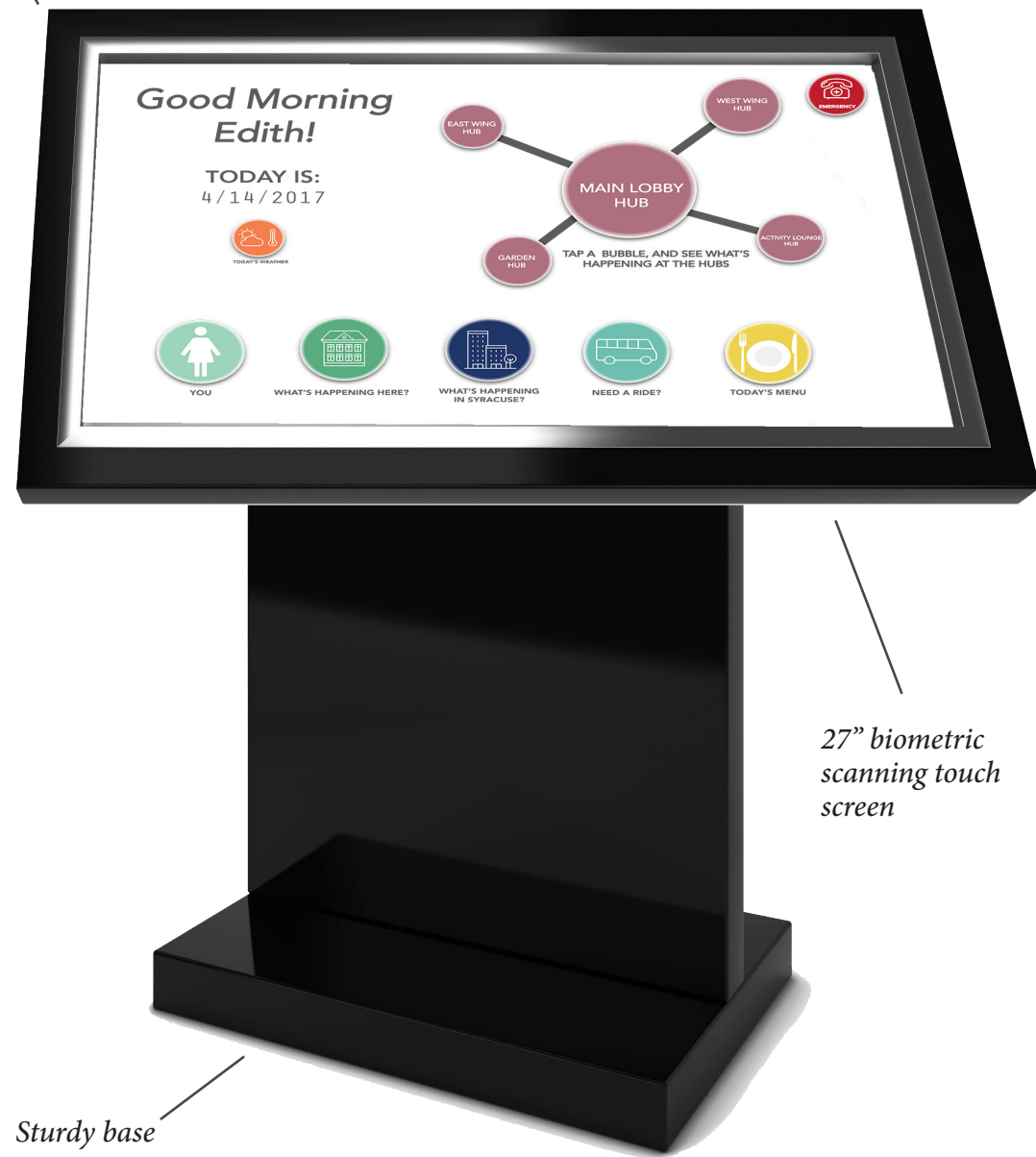


MENU

RIDE APPOINTMENT CONFIRMATION SCREEN

After they have put in all of their information, they are given a confirmation screen. This screen repeats the company they are getting a ride from, gives them their driver's name, as well as a phone number to call in case they need to change or cancel this pickup appointment.

Maximum height - 44"



27" biometric scanning touch screen

Sturdy base

APPEARANCE

The Social Hub kiosks would look like the one on the left. It would have a heavy, sturdy base to keep it from tipping or being pushed if someone were to lean or bump into it. The base is a small rectangular shape to prevent from tripping around it. It allows for foot space when people walk up to it.

The biometric touch screen will be around 27" big. This allows for plenty of space to click around, and the resolution will make the content on the screen large and readable.

In accordance with the Americans with Disabilities Act (ADA), the kiosk is no taller than 44", so that the maximum reach is no longer than 48", in case someone using a wheelchair is using the kiosk. The screen is angled at 40° to accommodate viewing from all angles, seated or standing.

'Casino-style' chair



Swivel attachment to base

FEATURES

The Social Hub kiosk has a chair that swivels around the base to accommodate those who wish to sit at the Hub to use it. The seat of the chair folds up so the whole chair can be stored behind the Hub if a user would prefer to stand while using it, or are a wheelchair user and may use the Hub while seated in their own chair.

The seat is modeled after those found at casino slot machines. Swivels around the base, and the seat itself swivels to allow for a user to easily get in and out of the seat.



Once placed within facilities, kiosks will be put in places that are easily accessible to residents and visitors. One will be placed in the main lobby of the building, in each residential wing, in a community/activity room, and/or in a garden or potentially outdoor space.

Above is an example of a Social Hub kiosk in a common space in the facility.



Above is an example of a Social Hub kiosk in a lobby area



Above is an example of a Social Hub kiosk in a residential wing

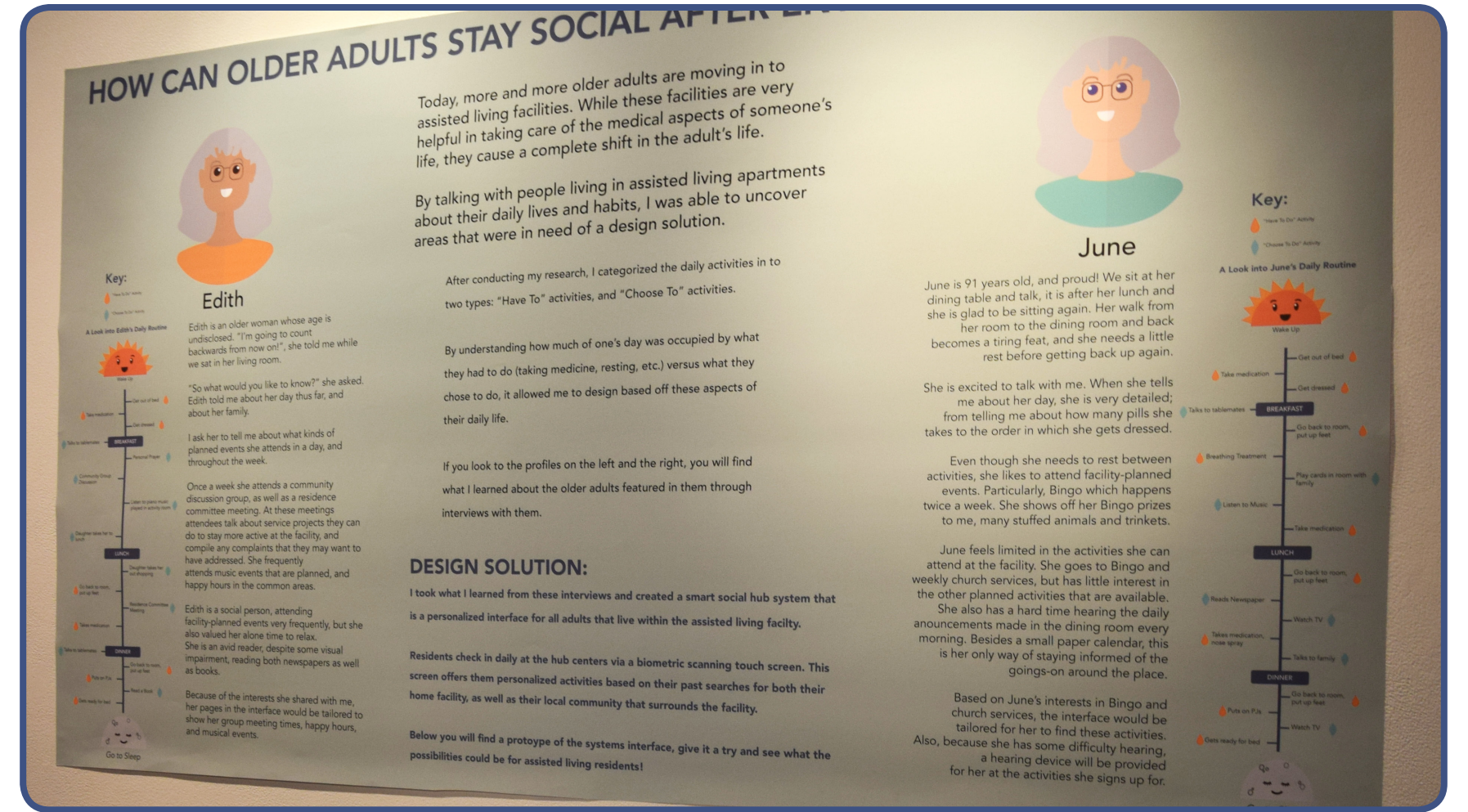




THESIS SHOW

During the week of April 10th to the 14th, the MFA candidates installed and presented their thesis projects to the public in the 914Works Gallery in downtown Syracuse.

This was an opportunity to showcase the work that had been done throughout the year, and create an experience surrounding the thesis work.



For my thesis show experience, I wanted to bring focus in towards my interface design. With the smaller kiosk design it highlight the touch screen and drew attention to it upon approach. The kiosk was kept white to blend in better with the wall behind it, to bring more focus to the interface.

This display was created specifically for this gallery space and exhibition, to give a preview of what the kiosk design would be similar to when models would be placed within facilities.

The poster that is placed above the kiosk is a abbreviated account of the research process. It discusses the reasoning for this thesis research, and leads into the explanation of the design solution. On each side of the poster is the daily routine and story of each of the interviewees.

CONCLUSION





THE FUTURE OF THE PROJECT

This project is definitely not complete. There are many design elements that I would like to incorporate that would make the hub stronger and more engaging.

For one, I believe it would be beneficial to incorporate a wearable device to alert residents of daily reminders such as when it is time for their next treatment. This will allow them to venture beyond their rooms without feeling as though they might miss out on an important event.

Also, I would like to incorporate portable “hubs” into the culture of the system after the Hub kiosks have been established.

These portable “hubs” would be tablet devices that allow residents to review activities they’ve signed up for and receive alerts in their rooms for activities they’ve expressed interest in.

I believe that just because an individual has moved into assisted living, this does not mean they are incapable of making their own decisions or have to settle for the activities that have been planned for them.

The Social Hub system allows for community connection to be created both in their home facility and throughout the local area.

It is this that I believe is the key to keeping residents of assisted living centers independent, happy, and satisfied with their overall quality of life.

**SYRACUSE UNIVERSITY
INSTITUTIONAL REVIEW BOARD**

Full Board Review or Expedited Review Application

Check which type of review is requested:

- Expedited Review- One signed copy of my application for **expedited** review.
 Expedited review covers research that involves only minimal risk procedures. See Standard Operating Procedure 012. <http://orip.syr.edu/files/SOP%20012%20-%20Expedited.pdf> for guidance.
 Full Board Review- One original signed hard copy plus 13 copies (14 total) of my application
 Includes research that cannot be reviewed using the expedited process involving more than minimal risk to the participant and requires review by the full IRB. See Standard Operating Procedure 013. <http://orip.syr.edu/files/SOP%20013%20-%20Full%20Board.pdf> for guidance.

Application Checklist:

All questions on the application have been answered.

The application has been signed by the investigator/faculty advisor and when appropriate, the student.

Copies of all appropriate, consent and/or assent documents (written, electronic, or oral consent script) are included.

Copies of any research instruments (surveys, questionnaires, interview questions, etc.) are included.

Copies of all recruitment tools (flyers, emails, posters, newspaper ads, etc.) are included.

All required appendices, including a list of references are included.

Copies of other IRB approvals or letters of cooperation are included. When the investigation is to be carried out in cooperation with another institution or with an investigator at another institution, a letter indicating the willingness of the institution to cooperate in the study must be included with the proposal.

The principal investigator/faculty member and student/research staff have completed the appropriate [Collaborative Institutional Training Initiative \(CITI\) Web-based Training Program](#) for Human Subjects required by SU.*

All students/research staff or any other individuals listed in the application who will have direct contact with participants and/or identifiable human participant data have completed the appropriate [Collaborative Institutional Training Initiative \(CITI\) Web-based Training Program](#) for Human Subjects required by SU.*

* Submission of CITI Training Certificate is required **only** if CITI training was completed at another institution.

I/We assure the IRB that the following statements are true: All information provided in this form is correct. I have evaluated this protocol and determined that I have the resources necessary to protect participants, such as appropriately trained staff, necessary facilities and equipment. I will seek and obtain prior written approval from the IRB for *any modifications* including changes in procedures, investigators/research staff, consent forms, questionnaires, surveys, etc. I will promptly report any unanticipated problems that may occur in the course of this study. I will report any significant findings which may affect the risks and benefits to participation. I will not begin my research until I have received written notification of final IRB approval. I will comply with all IRB requests to report on the status of my study. I will maintain records of this research according to IRB standards. If any of the above conditions are not met, I understand that approval of this research may be suspended or terminated.

Faculty Member/Principal Investigator

Signed _____ Date: _____

Name (typed): Don W. Carr

Student/Research Staff

Signed: _____ Date: _____

Name (typed): Kathryn M. Detwiler

This application must be typewritten and all questions must be answered. To complete form, tab to each field. Incomplete forms will be returned to the investigator for additional information. Outdated applications will not be accepted for review.

To edit the content of the form -unprotected the document as follows:

For Office 2003 Users (or below)

- Browse to View->Toolbars->Forms. The Forms toolbar will pop up.
- Click on the padlock icon on the right side. This will unlock the form.
- To protect the document again when you need to click on a checkbox, click on padlock.

For Office 2007 Users

- On the ribbon choose Review >Protect document>Restrict Formatting and Editing>Stop Protection.
- To protect the document again when you need to click on a checkbox, click on>Yes, Start Enforcing Protection>OK.

1. Protocol Information

Title of Protocol: Older Adult Community Engagement - What Can Keep Community Members Connected

NOTE The Principal Investigator (PI) must be a person who holds a faculty appointment or other administrative position of Director or higher. If you have any questions regarding this IRB requirement call the IRB office at 315.443.3013 for guidance.

Principal Investigator/Faculty Member Information

First Name: Don	Middle Initial: W	Last Name: Carr
Title: Program Coordinator		
Department: MFA Collaborative		College: Visual and Performing Arts
Design		
Campus Address: 116 Smith Hall		
Campus Phone : 315.443.2455		Fax : N/A
Email: dwcarr@syr.edu		Cell Phone (optional):

Student/Research Staff Information

First Name: Kathryn M.	Last Name: Detwiler
Graduate Student Undergraduate Student Other:	
Department: MFA Collaborative	
Design	
Local/Campus Address: 324 W Water St. Apt. 303	
Local/Campus Phone: 484-798-5082	
Email: kmdetwil@syr.edu	
Cell Phone (optional):	

2. Funding Information

2.1. Will/has the research been submitted as a grant or contract proposal?

Will/has the research been submitted through OSP?

Yes

If yes, who is the proposed sponsor and what is the title of the proposal submitted to OSP?

Sponsor:

Title:

No

Yes

No

2.2. Is this research currently being funded in part or in whole? No Yes (indicate below)

Internal Funding (check all that apply):

Departmental Funds	No cost study	Personal Funds
Gifts	Other, specify:	

External Funding (list all that apply and insert additional rows if needed):

Agency/Sponsor	Funding Mechanisms
	Grant Contract
	Grant Contract

2.3. Has the research been reviewed before the IRB? No Yes

If yes, please give the date of the review:
and the IRB# (if known):

**2.4. Is this research to be performed:
for faculty research**

No Yes

No Yes

for a masters thesis No Yes
 for a doctoral dissertation No Yes
 as part of a course requirement No Yes
 as an honors thesis No Yes
 Other (explain):

3. Study Rationale

3.1. Using non-technical language, describe the objective of this proposed research including purpose, research question, hypothesis, etc. From your description, the IRB should be able to determine how this proposed study adds to the knowledge on the research topic in order to judge the risks and benefits to the research participants. **NOTE:** A reference list citing relevant background information must be provided as an appendix with this application.

The objective of this research is to answer the question: 'Will technology assist older adults in staying socially engaged with their communities?' My hypothesis is that technology will help to foster positive and meaningful social relationships for older adults and keep their social engagement with their communities alive. Studies have shown that meaningful social relationships and the feeling of belonging with ones community is related to decreased levels of depression and improved physical health. This study will deconstruct social relationships in the older years of ones life and will produce a design solution to help keep those relationships strong and active despite any potential barriers a person may face due to living situations, health concerns and family relations. Any risk that may occur to the participants of the study will be minimal, and all precautions will be taken to ensure that they are aware of what they do or do not consent to.

4. Methods

4.1. Provide a detailed description of what participants will be required to do; including any technical terms or procedures.

Participants will be interviewed in their senior care facility. Interviews will be conducted in a private room in the facility for comfort and privacy of the participant, unless they prefer to have the interview conducted in another space. Most interviews will be conducted in person, but some phone interviews could also be conducted if it is preferred by the participant.

4.2. Describe how you will have sufficient time to conduct and complete the research?

Interviews will begin in the early weeks of the spring semester, and 1-2 interviews will be conducted per week for approximately 6 weeks in order to see as many participants as I am given permission for by the IRB. After interviews are completed , the remaining weeks of the semester will be spent analyzing the data and beginning to plan a design solution based on the data received through interviews.

4.3. Surveys, interviews, questionnaires will be conducted:

No (Skip to 4.4)

Yes Include all research instruments including surveys, questionnaires, sample interview questions, etc. as separate appendices. If the survey instrument is commonly used in your discipline, only

provide a citation to the instrument.

4.4. Community Based Participatory Research (CBPR) is described as research that is conducted as an equal partnership between traditionally trained “experts” and members of a community. Is this research categorized as CBPR?

No. (Skip to 4.5)

Yes. Please explain:

4.4.1. In CBPR research studies, the community participates fully in all aspects of the research process including conception, design, and analysis.

With this in mind, describe how you plan to engage community members in your research study:

4.4.2. Describe how you plan to provide community members with appropriate training for human

subjects research? Include in your description what training will be provided.

4.4.3. Describe your plan to disseminate research findings with members of the community throughout the course of your study.

4.5. Will this research be conducted by SU investigators in foreign countries?

No. (Skip to 4.6)

Yes. An **International Research Form** must be completed and submitted with this application. <http://orip.syr.edu/files/International%20Research.doc>

4.6. Will this research involve genetic testing?

No. (Skip to Section 5)

Yes. A **Genetic Research Form** must be completed and submitted with this application. <http://orip.syr.edu/files/Genetics.doc>

5. Performance Site Information

5.1. Describe how you will have adequate facilities to conduct your study.

I have a been in contact with Judith Huober at Menorah Park in Syracuse, and she is will allowing me access to various participants in the facility. I have requested to meet with residents in a conference room in Menorah Park so that it is a neutral location for them, and they can keep their privacy of their homes.

5.2. List all Performance Sites Other than SU (insert additional rows if needed).

(This may apply when a SU investigator collaborates with a non-SU investigator or institution. Please check all that apply and add additional sites. Each will require a letter of cooperation and/or IRB approval.)

Check all that apply	Name of Performance Site (Just all participating sites below)	IRB Approval and/or Letter of Cooperation
	SUNY Upstate Medical University	Attached
	*Syracuse City Schools	Pending Attached
	*Other, specify site: Menorah Park - 4101 E Genesee St, Syracuse, NY 13214 (315) 446-9111 JHuober@menorahparkofcny.com	Pending Attached

*The following additional information is required: contact information for the site, if the site has an IRB, and whether the IRB has approved the research, or plans to defer review to SU's IRB.

5.3. Will this research be conducted in a school or is it funded by the US Department of Education?

No (Skip to 5.4)

Yes. If yes, complete the form found at: <http://orip.syr.edu/files/Research%20Sponsored%20by%20the%20US%20Department%20of%20Education%20and-or%20Conducted%20in%20Schools.doc>

5.4. Is this a multi-center research project in which Syracuse University will function as the coordinating center/lead institution? (A multi-center study is one where different PIs at different institutions are conducting the same study.)

No

Yes. If yes, describe the plans to manage information obtained in multi-site research that may

be

relevant to the protection of research participants such as: unanticipated problems involving risks to participants or others, interim results, and protocol modifications:

6. Research Qualifications

CITI training is required for the faculty member listed below and all researchers and research staff who have direct contact with participants and/or identifiable human participant data. **NOTE:** If training is not completed at the time of submission, approval of your application will be delayed.

6.1. List the names and research qualifications of the primary investigator/faculty advisor listed in Section 1 of this application.

Don Carr - "I am well suited for my role in this research endeavor due to my love of collaborative design and how it can change lives. I served as the IID program coordinator here at Syracuse University from 1997-2010 establishing sponsored projects with such corporations as LG Electronics, Welch Allyn, Motorola, and Bose. In 2014 I became the program coordinator for the MFA in Collaborative Design. This innovative masters' program has strong connections to both the Aging Studies Institute and Disability Studies on the SU campus.

Therefore, working with this IRB is a logical next step in using what I have learned with well-established companies and my involvement with the Aging Studies Institute to expose my students to working on collaborative design for older adults. I look forward to collaborating with different schools within Syracuse University and the surrounding community on this innovative research effort."

6.2. List the names and research qualifications of the student/research staff listed in Section 1 of this application.

Kathryn Detwiler - I am CITI training certified in human subject research. I have also taken a three credit design research class in the fall of 2015, and have a background in qualitative research through classes I took both here at Syracuse University, as well as in my undergraduate career as a sociology student.

6.3. List the name(s) and research qualifications of all other individuals who will be involved in this research and will have direct contact with participants and/or identifiable human participant data.

6.4. How will you ensure that all persons listed above are adequately informed about the protocol and their research related duties and functions?

Don and I will be meeting in person biweekly to discuss progress of the study, and will be keeping in touch via email and phone calls to remain in contact beyond the face to face meetings.

6.5. Explain how you will have adequate numbers of qualified staff to conduct your study.

Aside from Don Carr and myself, there will be no other staff involved in conducting this study. Due to the small number of participants that I am looking to interview, additional researchers will not be necessary.

7. Characteristics of Participants

7.1. Approximate Number of Participants to be recruited: 10

7.2. Sex: M F Both

7.3. Age Range-Check all that apply:

0-6 (Include parental consent form)

7-17 (Include parental consent form and child assent form)

18-64

65 and older

Exact ages to be included: No participant younger than 60

7.4. When the age range indicates an upper limit, provide justification: My focus for this project is to see how older adults (of or close to retirement age) interact with their communities and their peers. Since younger age brackets tend to have better access to social events in their communities it would be counterproductive for my study to include them in my research.

7.5. Does this study target one gender or specific social/ethnic group(s)?

No. (Skip to 7.6)

Yes. If yes, answer 7.5.1. and 7.5.2. below.

7.5.1. If yes, check all that are targeted/vulnerable populations (Code of Federal Regulations: http://www.access.gpo.gov/nara/cfr/waisidx_00/45cfr46_00.html).

*These additional forms can be found on the IRB Website under Special Populations:

<http://orip.syr.edu/human-research/forms-list/forms.html>

Children/minors - *Requires additional form*

Cognitively impaired - *Requires additional form*

Prisoners - * Requires additional form*

Pregnant women - *Requires additional form*

Legally restricted, non-prisoner

Educationally disadvantaged

Elderly/aged

Other, specify:

NOTE: These additional forms can be found on the IRB Website (under Special Populations):

<http://orip.syr.edu/human-research/forms-list/forms.html>

7.5.2. Explain the rationale for using this particular group(s): Older adults are less involved in social events in their communities and I would like to research what keeps them from attending such events and staying active in their social lives. Active social lives lead to decreased levels of depression and can improve the morale for their age bracket.

7.6. List the inclusion criteria:

Any adult 60 years old and older, any adult meeting the age requirement that lives in an assisted living facility in the Syracuse community, and any adult that is able to provide consent on their own.

7.7. List the exclusion criteria:

Any person younger than 60 years of age and any adult not living in a Syracuse-area Senior Care Facility.

7.8. Does this research involve participants likely to be vulnerable to coercion or undue influence?

No. (Skip to 7.9)

Yes. If yes, describe the additional protections included in the protocol to protect their rights and welfare.

At no time during the research process will the participant be required to continue in the event that they decide to revoke their consent. They will be informed that they can stop participating at any time and all previously collected data will be destroyed if the participant chooses to terminate their participation in the study.

7.9. General state of Health: (“Unknown” - *unless you will obtain health data on participants prior to beginning the study.*)
unknown

8. Recruitment of Participants

8.1. Describe in detail how participants will be identified and recruited. Include in your description how you will have access to a population that will allow recruitment for the number of participants required for your research. Do not merely state “Volunteers”. Residents of senior care centers will be recruited through contact made within the facilities. The program coordinators in the senior care facility will facilitate recruitment of residents to the study by forwarding my recruitment materials throughout the facility.

8.2. Describe who will recruit participants.

I (the student researcher) will be recruiting all participants for the study.

8.3. Identify all applicable recruitment methods that apply: NOTE:Copies of all advertising materials including flyers, posters, ads, letters, scripts or detailed descriptions; including graphics **MUST** be provided with your application. ([See SOP 036 for Recruitment/Advertising](#)).

Flyers	Mass E-mail Solicitation	SU Today News
Service		
Internet	Posters	
Television	Newspaper	
Letter		
Departmental Research Boards		
Telephone	Radio	Social
Media		
Other (describe):		
Not applicable		

8.4. Will participants be compensated?

No. (Skip to Section 9)

Yes. If yes, answer 8.4.1. and 8.4.2. below.

Note: All information regarding compensation must be included in consent/assent documents.

8.4.1. If Yes, specify the method of compensation (e.g. monetary, course credit, gift card, toy, etc.), the amount of compensation, and how the compensation will be awarded (per task, per session, etc.).

8.4.2. Describe how compensation will be awarded if the participant withdraws after beginning the study. Compensation must be pro-rated in a manner that recognizes the time and effort of the participant prior to withdrawal.

9. Informed Consent Procedures

Consent is required for all human subject participants. Final copies of ALL consent/assent documents (including electronic or oral scripts) must be provided for IRB approval and date stamping. Informed consent/assent documents must be on *official SU departmental letterhead*. For guidance regarding informed consent, consult SOP 017-Documentation of Informed Consent <http://orip.syr.edu/files/SOP%20017%20-%20Document%20of%20Informed%20Consent.pdf>. For consent form instructions/sample visit: <http://orip.syr.edu/files/Consent%20Form%20Guidelines.doc>

For assent form instructions/sample visit: <http://orip.syr.edu/files/How%20to%20Prepare%20a%20Child%20Assent%20Document%20and%20Assent%20Sample.doc>

9.1. How many consent documents are included with this application? 1

9.2. How many assent documents are included with this application? 0

9.3. Is more than one consent/assent document included with this application?

No. (Skip to 9.4.)

Yes. If yes, follow instructions below (9.3.1 and 9.3.2).

9.3.1. Assign form numbers to each individual document and add it to the footer of the document-e.g. Consent form 1, Consent form 2, Assent form 1, etc.

9.3.2. Create a separate log as an appendices identifying each document-e.g. Consent form 1-parental consent, Consent form 2-adult participant consent; Assent form 1-child assent, etc.)

9.4. Indicate the type of consent you will obtain for your study (check all that apply).

9.4.1. Written Consent (ATTACH COPY)

Provide a brief statement of what will be said when the consent process is initiated:

9.4.2. Electronic Consent (ATTACH SCRIPT) (*This is a request to waive the required element of documentation of written consent, e.g. internet studies.*)

9.4.3. Oral Consent (ATTACH SCRIPT)

Provide the justification for the waiver of written consent:

9.4.4. N/A Data Analysis Only, no consent form required.

9.5. Who will conduct the consent interview?

The Student investigator, Kathryn Detwiler

9.6. How will you ensure that prospective participants have sufficient opportunity to consider whether or not to participate in your study?

I will speak with them about the consent process, make them aware that they can revoke this consent at any time, and allow them time to read the consent form and either sign or orally consent to the agreement.

9.7. What steps will be taken to minimize the possibility of coercion or undue influence?

Participants will be reassured that they can choose not to consent and decline participation of the research process, or area allowed to revoke consent at any time during the research and their data will not be used.

9.8. An ASSENT statement is required for participants who cannot legally give consent themselves. Assent statement:

No (Skip to 9.9)

Yes (ATTACH COPY)

9.8.1. From whom will consent be obtained and by what means for minors or the individuals considered to be cognitively impaired in their decision making ability? N/A

9.8.2. If subjects are minors, will they still be involved in the study when they reach the age of majority (18)?

No

Yes. If yes, outline your plan to re-consent these participants when they reach the age of majority.

N/A

9.9. Will non-English speaking individuals be participants in the research?

No (skip to Section 10)

Yes If yes, indicate how consent will be documented from non-English speaking participants?

A translated written informed consent document in a language understandable to the participant.

This should be an accurate translation of the full informed consent. (ATTACH COPY)

Identify the name of the individual or translation service that provided the translation of

the consent document.

List the qualifications of the individual or translation service that provided the translation of the consent document.

Orally, using a qualified translator to translate the English informed consent document to the participant, and a translated short form in a language understandable to the participant (ATTACH COPY)

Identify the name of the individual or translation service that will provide translation for the consent process and during the conduct of the research.

List the qualifications of the individual or translation service that will provide translation for the consent process and during the conduct of the research.

A confidentiality statement from

10. Potential Financial Conflict of Interest

A conflict of interest exists when any investigator or personnel listed in this research protocol's financial interests may reasonably be affected by research, scholarship, educational or other externally funded activity. Or, when the immediate family* of anyone in such a role, have significant financial interests that may compromise, or have the appearance of compromising, an investigator's professional judgment that could directly and significantly affect the design, conduct, or reporting of the research, proposed or funded.

Federal Guidelines emphasize the importance of assuring there are no conflicts of interest in research projects that could affect the welfare of human participants. If this study involves or presents a potential conflict of interest, additional information will need to be provided to the Vice President for Research.

The following significant financial interests must be disclosed if interest is in the sponsor of the research or the product being tested:

Anything of monetary value - aggregated for the Investigator and the Investigator's spouse, domestic partner, and dependent children - including but not limited to the following:

- a. Salary or other payment for services (e.g. consulting fees) of \$10,000 or greater in the past year when aggregated for the immediate family;
- b. Any equity interest (e.g. stocks, stock options or other ownership interests) unless it meets the following three tests:
 - i. less than \$10,000 in value as determined through reference to public prices or other reasonable measures of fair market value (e.g. most recent sales price recognized by the company),
 - ii. constitutes less than a 5% ownership interest in any single entity, or
 - iii. publicly traded on a national stock exchange,
 - iv. no arrangements have been made where the value of the interest will be affected by the outcome of the research.
- c. Intellectual property rights (e.g. patents, copyrights and royalties from such rights).
- d. Services as an officer, director, or in any other executive position in an outside business, whether or not remuneration is received for such service.
- e. Any compensation or equity interests that may be influenced by a particular outcome in sponsor-funded research, even if the identified thresholds are not met.

Syracuse University Policy on Conflict of Interest for Research Investigators:

<http://orip.syr.edu/files/SOP%20032%20-%20Institutional%20Conflict%20of%20Interest.pdf>

**Immediate family means a spouse, domestic partner or dependent children.*

10.1. Do any of the investigators or personnel listed in this research protocol, or members of the immediate family of the investigators or personnel, have a financial interest associated with this study that requires

disclosure?

No (Skip to question 10.3)

Yes; If yes, identify the individual(s):

10.2. Has this financial interest been disclosed and managed?

Yes. The Office of Research Integrity and Protections will verify that a management plan is in place with the Vice President for Research.

No. If the Vice President for Research does not have an approved management plan for this research, complete Parts I and II of the Disclosure of Significant Financial Interest Form (<http://osp.syr.edu/forms%20and%20pages/Forms/COI%20-%20Disclosure%20of%20Financial%20Interests%20Form.PDF>) and submit it to the Office of the Vice President for Research, 207 Bowne Hall.

10.3 To your knowledge, did the University, or your School/Department receive a gift or equipment donation, or promises thereof, from commercial sponsors of this research project?

No

Yes; If yes, identify the sponsor:

Final IRB approval cannot be granted until all potential conflict matters are settled. The IRB requires a recommendation from the Vice President for Research regarding disclosure to participants and management of the conflict.

11. Data Collection, Storage of Data and/or Confidentiality

Confidentiality pertains to the treatment of information that an individual has disclosed in a relationship of trust with the expectation that it will not be divulged to others in ways that are inconsistent with the understanding of the original disclosure without permission.

11.1. Specify the individually identifiable data you will obtain, use or disclose to others.

I anticipate collecting data that will be individually identifiable in the form of first names and last initials, ages, private contact information, and audio recordings.

11.2. Describe how data will be maintained (e.g., paper or electronic spreadsheet, desktop computer, laptop or other portable device); how you will maintain the confidentiality and data security, (e.g., password protected computer, encrypted files, locked cabinet and office); and who will have access to the data (e.g., research team, sponsors, consultants).

Data will be kept on a password protected laptop, that only I have access to.

11.3. If you will be sharing data with others, describe how data will be transferred (e.g., courier, mail) or transmitted (e.g., file transfer software, file sharing, email). If transmitted via electronic networks, describe how you will secure the data while in transit.

I will not be sharing the data with anyone other than the primary investigator, Don Carr. The data will be "shared" during bi weekly meetings where he will have access to the laptop in my presence. Data that has been printed will be shared with him, and after the study has been conducted it will be destroyed. Data will NOT be shared electronically. Before data is inputted into the computer, all personal identification will be removed from participants to keep their privacy intact.

11.4. If you plan to code the data, describe the method in which it will be coded and indicate who will have access to the key to the code.

I will code the data by identifying patterns from the interviews and labeling patterns via color-coding themes that emerge through the interview transcriptions. Don Carr will also have access to the color-coded system in order to interpret the data with me. Participants will be given a code number of P# (ex. P1, P2, P3, etc.) so that they will be de-identified on all data forms.

11.5. How will you educate research staff to ensure they take appropriate measures to protect the privacy of participants and the confidentiality of data collected.

Don (the PI) and I (student researcher) have reviewed the plan in place for the

confidentiality of data to ensure appropriate measures will be taken to keep participant's privacy intact.

Privacy can be defined in terms of having control over the extent, timing, and circumstances of sharing oneself (physically, behaviorally, or intellectually) with others.

11.6. Describe what provisions are in place to protect the privacy interests of participants, where “privacy interest of participants” refers to the participant’s desire to limit interventions or interactions with others and to limit access of others to their private information. Examples include: location of data collection (private location vs. public location), method of data collection (focus groups vs. one-on-one interview, questionnaires vs. interviews, telephone, email and mail communications), type of information (written vs. oral), recruitment methods and cultural norms. In order to protect the privacy of the participants, I will give them the option to meet in a neutral location, or allow for telephone interviews.

11.7. Will audio, video or film recording be used?

No. (Skip to Section 12)

Yes. If yes, specify type of recording: Audio. I will need to record interviews with participants and then transcribe them.

11.7.1. Describe the storage of the recordings. Include in your description who will have access to the

recordings, as well as how and where they will be stored.

The audio will be recorded on my password protected smartphone, then downloaded to my password protected laptop. Only I know the passwords. When asked, I will share recordings with my faculty advisor Don Carr from my laptop. I will be present when he listens to the recordings. Audio recordings are taken with the preloaded memo recording application, and once the audio files are transferred to the laptop, files will be deleted off of the app. Once this is done there is no way to retrieve them again.

11.7.2. How long will the recordings be kept and what is the disposition of the recordings once the research is complete.

The recordings will only be kept long enough to transcribe the interviews, then be destroyed.

NOTE: *Specific permission for each type of recording must be sought in the consent form and should be indicated at the end of the document using checkboxes (_ I agree to be audio taped, _ I do not agree to be audio taped, _ I agree to be video taped, _ I do not agree to be video taped, etc.)*

12. Risk to Participants

12.1. Describe in detail any possible physical, psychological, social, political, legal, economic, or other risks to the participants, either immediate or long range. Risk may be minimal but never totally absent. Do not say “No Risk”.

Participants may have a psychological risk if questions asked during my interviews trigger a personal problem or hurtful memory. For example, when asking about their family life, and how that affects their social life, that may cause them to think about a past abusive family member and trigger emotional issues.

Participants may also have a social risk if they confide in me about issues in the senior center. What they divulge may cause rifts between neighbors and cause negative effects on their social life. For example, if a participant is living in a senior center that provides sub-par conditions, and I have to report them, it may affect those around them as well by causing stigma or isolation from other residents because of their involvement in my reporting. I don't know anticipate uncovering or identifying abuse situations, but as a mandated reporter I just need to be cautious and let participants what happens if I do in fact uncover these problems. If this is the case, I will call Adult Protective Services and any other officials that are required to be notified in a situation regarding elder abuse.

12.2. Describe what procedures will be used to minimize each risk you have stated above. Also, include in your description the availability of medical or psychological resources that participants might require as a consequence of the research, if applicable. If participants need to be debriefed at the end of the study, a copy of the debriefing statement must be attached.

In order to minimize these risk, I will provide contact information to psychological healthcare facilities in the Syracuse area, as well as allowing them to abstain from answering questions if those questions pose an increased risk to them.

12.3. Does this research involve more than minimal risks to participants?

No. (Skip to Section 13)

Yes. If yes, please provide plan for monitoring the data collected to ensure the safety of participants. (Your data safety monitoring plan must include the following: Description of who will monitor the data, what data will be monitored, how frequently will it be monitored, what analysis will be performed on the data, what decision rules (e.g. stopping rules) will be considered, if unexpected harms will be detected promptly, if an increased frequency or severity of unexpected harms will be detected promptly, if the protocol will be stopped once harms are proven to outweigh benefits.)

13. Benefits

Note: Course credit or payment is an inducement to participate in the study and should not be described as a benefit of the research.

13.1. Describe any benefits to the participants in general.

Benefits to the participants can include social interactions that are more than their normal amount, and to engage in more meaningful social interactions.

13.2. Society at large.

If, through this research and designs, the services are adopted universally, it could help all older adults remain social and active in their older years.

13.3. Explain how the benefits outweigh the risks involved.

These benefits will increase morale among older adults, and that morale will decrease depression and lower mental health issues, thus leading them to more fulfilled and longer lives.

A number will be assigned to your protocol. Please refer to it whenever calling or writing for information.

All supporting documentation including list of references, consent and/or assent form(s), survey instruments, interview questions, recruitment materials, letters of support, IRB approvals from other institutions, etc. must be included with the application.

Return Completed Protocol To:

Office of Research Integrity and Protections
214 Lyman Hall
Syracuse University
Syracuse, NY 13244
Phone: 315-443-3013

Please send IRB notifications by:

Hard copy campus mail. All correspondence mailed to the PI/faculty member’s address.

Email notification (Only the original hard copies of date stamped consent/assent documents will be returned.)

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* All images are licensed through Adobe Stock, unless otherwise noted.

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KATHRYN M. DETWILER



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education

- Master of Fine Arts
Collaborative Design May 2017
Syracuse University, Syracuse, NY
- Bachelor of Arts
Communication Arts May 2014
Susquehanna University, Selingsgrove, PA

valued courses

- Undergraduate:**
 - Public Speaking
 - Team Communication
 - Interpersonal Communication
 - Qualitative Research Methods
 - Intercultural Communication
- Graduate:**
 - Design Research
 - Digital Design Techniques
 - Design Communication
 - Design Thinking and Strategies
 - International Disability Law

design skills



media skills



related experience

Julian Krinsky Camps and Programs
Graphic Design Instructor Summer 2017

- Lead classes of 12 students or less in various design units
- Taught lesson units on color theory, typography, grid, and design thinking
- Collaborated with other instructors to create exciting and fun lessons

Collaborative Design, MFA Program, Syracuse University
Graduate Student July 2015 - May 2017

- Explored various projects related to disability and the aging population in order to create design solutions
- Co-designed 6 major projects in teams of 3 or more
- Supervised and led a group of engineers through the design thinking process to design a nonverbal communication device
- Designed an App-based service system that managed business' inventory and organized paperwork
- Collaborated with several university departments on projects for research and feedback during the design process

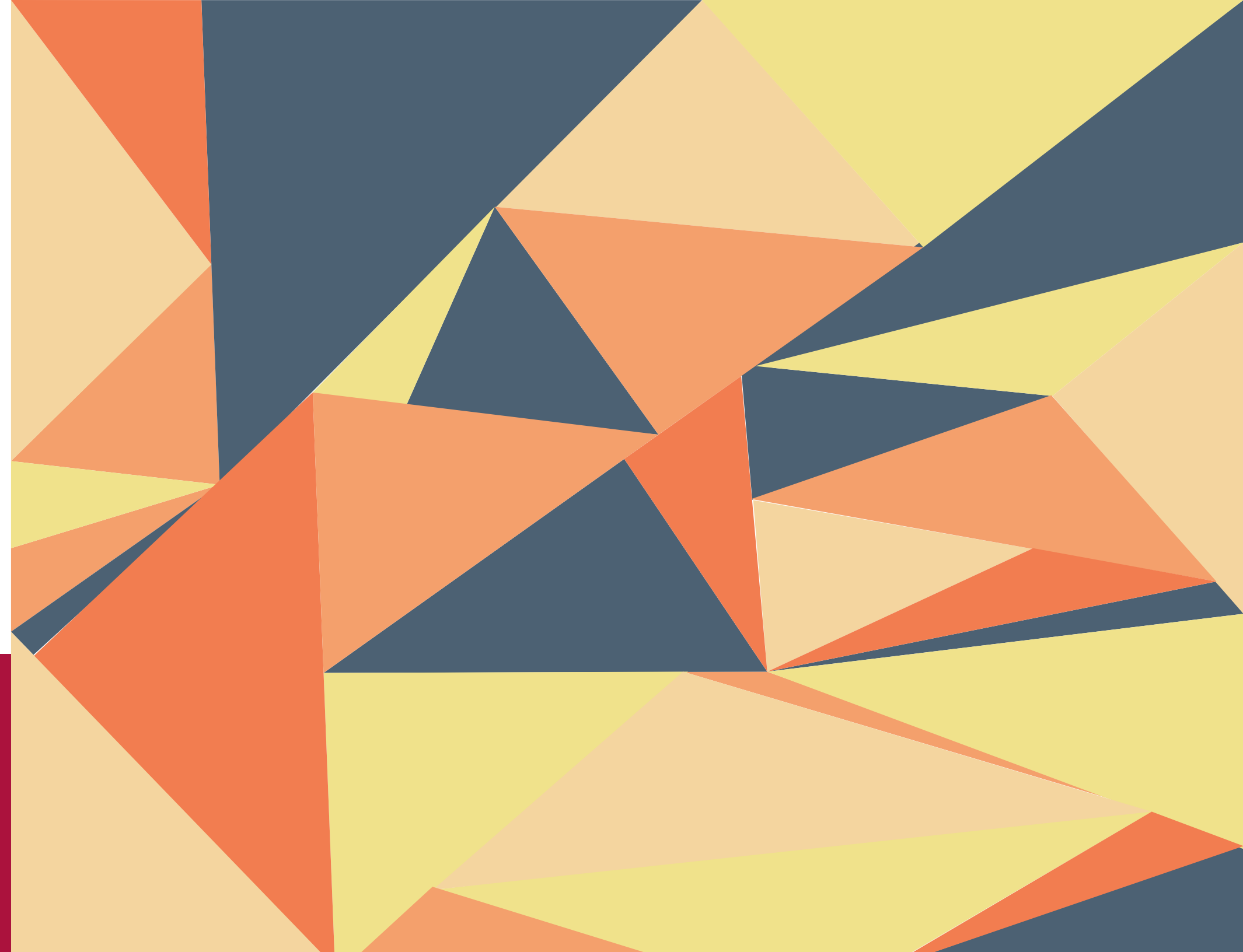
Quintessentially Gifts, London, England
Editorial & Brands Development Intern Summer 2013

- Composed copy for and uploaded 150+ products to website for sale
- Managed social media sites, planned future blog posts and created photo galleries via Facebook and Pinterest showcasing new products
- Reorganized Hermès Handbag section of website using internal program maintenance software

Public Relations Student Society of America

Communications Week Director, Registered Member Aug. 2013 - May 2014

- Drafted copy for press releases, news articles, and advertisements for campus events to be printed in campus newspaper, and displayed in local area
- Networked and coordinated with alumni to plan and schedule a week-long seminar series of 7 speaking events at University for communications students
- Collaborated with 8 other executive board members and professional faculty advisor to maintain functionality and a positive presence on campus.





SU:VPA
SUNY SHERBROOKE
VIRGINIA POLYTECHNIC INSTITUTE

SCHOOLS OF DESIGN

**Collaborative
Design**

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