Towards the development of a meetup application to enhance the quality of life among elderly

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Abstract

The elderly population in the Netherlands is rapidly growing. As aging in place is preferred among the older generation, it is of great importance to provide all the assistance seniors need to sustain a high quality of life. As technology evolves, it provides support aiming to improve elderly lives. Unfortunately, a failure to understand the needs of the elderly creates a major obstacle to the acceptance of technology among the older generation. This study aims to identify how the quality of life among the elderly can be enhanced by improving social interactions in person. For this purpose, the study proposes a mobile meetup application called Elderlynk. The goal of the application is to provide a platform where the elderly can meet like-minded people. In order to justify the design choices user testing was conducted in the form of an interview. The results of the interview indicate that this concept has the potential to become a real application. However, before this happens additional research is needed to prove that Elderlynk will be accepted by the target group and enhance their quality of life.

Keywords: aging in place, elderly, quality of life, meetup application, usability, technology acceptance.

1 INTRODUCTION

The Netherlands is experiencing a significant increase in its elderly population, with 3,601,167 residents aged 65 or above accounting for 20.2% of the total population as of January the 1st 2023. This is a remarkable increase from the 12.8% recorded in 1990 [33]. Aging in place, or the ability for elderly individuals to remain in their own homes, has numerous benefits, including promoting independence, sustaining a positive mindset and mental well-being, and reducing the risk of loneliness [32]. Additionally, the familiarity and sense of identity that seniors experience can contribute to an increase in their quality of life [32].

Unfortunately, a shortage of available personnel to care for the elderly at home and a lack of trained caregivers pose significant challenges [19]. The Ministry of Health, Welfare, and Sport in the Netherlands launched the "Langer Thuis" program in 2018 to promote aging in place by providing quality support and healthcare, increasing personnel availability, and improving facilities in elderly homes [37]. The COVID-19 pandemic further highlighted the negative impact of social isolation on elderly individuals living at home, with a significant number of seniors experiencing reduced care due to personnel shortages [38].

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The advancement of computer technology allows the elderly to be more independent by offering medical assistance in their homes. Examples of such technology include virtual caretaker chatbots [23] and physical activity reminder systems designed to motivate the elderly to engage in exercise [38]. However, there is limited research on technology that facilitates social connections among the elderly population in The Netherlands. The primary aim of this research endeavour is to develop a mobile meetup application that enables seniors to connect with like-minded individuals in their locality and engage in face-to-face conversations or fun activities together. This leads to the following research question:

How can a meetup application, focused on promoting in-person social interaction among the elderly in the Netherlands, enhance their quality of life?

The following sub-question can be extracted:

What are the essential visual features and structural elements of a meetup application that provide an optimal user experience for the elderly?

The research team expects that the meetup application can enhance the quality of life among the elderly in the Netherlands by improving their social interactions and reducing the sense of loneliness.

In this paper, we will first consider the existing research base on the elderly and technology as well as previous research on meetup applications for the elderly in Section 2. Following, the methods of research will be introduced. In Section 4 we will present the results of this study. These will be analyzed and discussed in Section 5. Subsequently, we will discuss the limitations of the study and the opportunities to further expand upon this work in the future. Finally, a conclusion will be drawn based on the obtained results.

2 RELATED WORK

The concept of improving elderly connectedness within society has been a topic of extensive research.

2.1 Elderly and technology

According to Statistics Netherlands, elderly (seniors) are adults of age 65 years old and above [33] [13]. This study adopts the same definition of elderly.

In order to improve the quality of life among the elderly through technology, the users must accept and embrace the technology being introduced. This principle is at the core of the Technology Acceptance Model (TAM) [6]. This model takes into consideration the following six factors: external variables, perceived usefulness, perceived ease of use, attitude towards use, behavioural intention, and actual use [26]. Out of those the two most important ones, relevant to this study, are perceived usefulness (the ability of an

application to improve life satisfaction) and perceived ease of use (the concept of an application being "free of effort" [1]) [6].

There is a stereotype suggesting that, at some point, the elderly face challenges in using technology. Furthermore, their capability of learning new technology has also been questioned [21]. The process of adopting technology by the elderly is hindered by several obstacles: unawareness of the advantages of technology, limited marketing among elderly people, inappropriate design, and anxiety. Aging is the cause of the elderly experiencing reduced speed of information processing, lower levels of working memory, and a decline in the ability to filter out relevant information. However, it is widely believed that over 50% of the technological challenges faced by older individuals stem from usability issues, which can be effectively addressed through enhanced design and proper training [3] [15].

The young generation interacts with technology daily. This leads to the assumption that when this group reaches the age of 65 years they will not experience significant difficulties while using technology. However, this assumption is false as technology keeps evolving and a constant lag in technology acceptance is expected [3].

Also, the research base raises a concern that a lack of progress in technology design is experienced because of a misinterpretation of the needs of elderly people. Taking into account their needs when creating technology design would legitimize development [39] [3].

A high percentage of the elderly own a mobile device in developed countries such as The Netherlands. For example, in the United Kingdom, even as far as 2003, 60% of adults aged 65-74 years and 36% of seniors above this age own a mobile phone. However, the full potential of those devices is not utilized. The elderly use them primarily for limited purposes (calling and texting) [22].

2.2 Elderly as digital content producers

According to a study conducted in 2013 by Waycott et al., elderly individuals tend to consume digital content more than they produce it [35]. To address this issue, the study proposes a prototype iPad application named Enmesh. The purpose of Enmesh is to encourage elderly individuals to create digital content, thus enhancing their social interactions and stimulating self-expression.

During the study, a group of elderly individuals, all aged 85 or older, used Enmesh for a period of ten weeks.[1] The application allowed them to share pictures and communicate through messages. The results of the study showed a gradual increase in the participants' interest in engaging in conversations through Enmesh. Furthermore, the application provided an opportunity for elderly individuals to express themselves creatively [35].

2.3 Connecting the generations

Furthermore, research has been conducted on how technology can improve inter-generational connections by Kaplan et al [17]. The core concept of this research is to promote collaboration between different age groups while they practice together the use of technology.

[1]The participants were strangers and did not know each other beforehand

The results of this study have concluded that such connectedness yields several benefits, including enriching the general knowledge of different generations about each other, expanding personal networks, and identifying and discussing prejudices and stereotypes.

2.4 Social Network for Elderly People

A study conducted by Manu Chemudupati from Michigan Technological University delves into the opportunities provided by a social network for the elderly, with a primary focus on the features that would enhance its appeal and usability [4].

In the research paper, some already existing solutions are presented. One of which is Buzz50 a social forums network for adults above 50 years old. It allows seniors to engage in live chat (rooms) with people around the world. Olderwiser is another platform with similar features. It is a social networking site. Although it has similarities with Buzz50, Olderwiser also supports a feature for sharing photographs within the community of the website [4].

The list of existing solutions provided by Manu Chemudupati also includes a meetup application. It is called Meetup. This application provides a platform to create and join local events in person. Meetup promotes finding friends, sharing hobbies, or expanding professional networks.

Meetup is an example of a solution to promote social interaction in person. However, this application does not target the older generation. It is designed in a way that does not account for the needs of the elderly. Meetup also requires a certain level of working memory and the ability to filter relevant information that some older adults lack due to aging [3] [15]. The following section explains the approach taken towards the development of a meetup application accustomed to the unique demands of seniors.

The studies, mentioned in Section 2, will serve as the starting point of this research endeavour.

3 METHODS OF RESEARCH

3.1 Study design

This section provides an overview of the methods that were utilized to execute the proposed research. The study has been reviewed and approved by the Computer & Information Sciences Ethics Committee of the University of Twente (application number: 230341). Firstly, a literature review was carried out to gain more knowledge on the essential visual features and structural elements of a meetup application that provides an optimal user experience for the elderly. The outcome of this review would be the guideline to design a low-fidelity prototype. Secondly, after completing the prototype, a semi-structured interview, including user testing, was conducted with individuals from the application target group: elderly inhabitants from the Netherlands aged 65 years and older. The goal of the interviews was to receive feedback on the design, structure, and content of the application. This approach is considered the traditional and most effective method of gathering public preference about a (new) technological concept [16]. Table 1 provides an overview of the participant selection and interview procedure. The obtained results were analyzed and discussed. A list of limitations and a plan

for further development and improvements are provided. Finally, a conclusion was drawn based on the results of the literature review and the observations from the user testing.

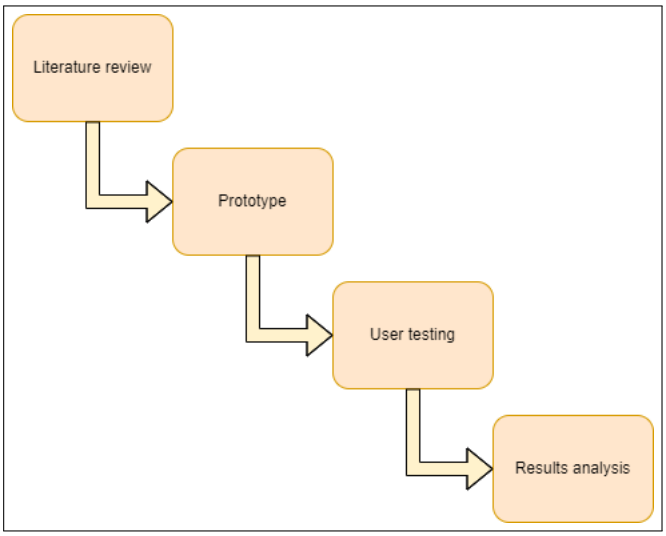

Fig. 1. Process of the study

3.2 Participation selection

There are different kinds of devices that user testing can be done on. If feasible, two study groups will be formed: Group A interacting with a smartphone, and Group B interacting with a tablet. The aim is to compare the success rate of the two groups and gain insight into which device facilitates the application better. According to Nielsen Norman Group the size of the groups must be at least 15 people each [8]. In case of participation shortage study Group B will be discarded and the lower limit of Study Group A will be set to at least 5 participants by the guidelines provided by Nielsen Norman Group. The preference for a smartphone is based on the study of Kortum et al. who argues that mobile applications on the phone are more usable than applications on the tablet [20].

4 RESULTS

4.1 Usability challenges among elderly

A major challenge identified during the literature review is usability. It is one of the main issues regarding technology acceptance among the elderly. This was discovered in a study conducted by researchers from the Pontifical Catholic University of Peru in 2019 [7]. The identified usability issues that the elderly face can be divided into three categories: visual, psychomotor, and cognitive.

4.1.1 Visual Limitations. When it comes to technology, the vision is the sense that perceives the majority of the information presented [31]. It has been observed that eyesight worsens as people become older. Also, the old eye needs more time to adapt to fast-changing brightness [31]. Those natural aging features affect a mobile application's usability [7].

Stage	Description
User selection	The target group consisted of adults living in the Netherlands that are 65 years and older. All of them live independently at home.
Information brochure	The information brochure contains a description of the study. Its goals are presented, as well as the potential risks. Furthermore, the procedure of withdrawal from the interview and the usage of data obtained is explained.
During the interview	Interviews took place at the house of the participants. This helps create a safe environment for the participant. The interviewees were briefed on the purpose of the study, usage of data, and procedure of withdrawal, before the start of the interview and signed an informed consent form. There were three sections of questions asked: • personal information: age, home situation, and employment status. • social interaction: hobbies, how they keep in touch with family and friends, and whether they use social media. • user testing: participants were asked to perform a few tasks on the application using a smartphone, primarily on navigating through pages. The interview ended with a debriefing and thanking the participants for their time and effort.
Results analysis	Interviews were audio recorded and later transcribed. Afterwards, the obtained data were analyzed for the outcomes of the study.

Table 1. Participant selection & Interview procedure

Relative small-sized visual elements cause a reduced user experience [7]. Examples of visual elements are buttons, icons, images, etc. Furthermore, the elderly find small or thin font sizes difficult to read [31]. Finding relatively small touch targets [5] as well as using a virtual keyboard that is not big enough proves to be a nontrivial task for the elderly [14]. The spacing between lines and letters is also crucial for readability [12]. Also, the spacing between touchable targets is an important feature for elderly users [36]. Furthermore, The elderly find too bright colours in icons and images inappropriate [28] [30]. In addition, it has been observed that it is not trivial

for the elderly to find colour coding which is meant to help them differentiate and group the elements [18].

4.1.2 Psychomotor Limitations. In general, elderly people need approximately 50 to 100% more time to complete a task on a mobile application compared to adults aged 30 and below [7]. Some user interfaces can require quite precise movements. In case of an error, there is a risk that the task will need to be restarted from the beginning. This could lead to frustration. The most common issues the elderly face on the psychomotor level are as follows [7].

Elderly experience difficulties interacting with moving objects (text, buttons, pictures, etc.). The virtual keyboard has also been identified as a tool older adults struggle with [12] [14] [24]. The level of task difficulty is directly proportional to the number of steps required for completion [12] [14] [30]. Elderly users struggle to interact with functionalities they are not familiar with. Examples of these are scrollbars and "drag and drop" [24] [13] [30]. Also, the older generation fails to recognize "tappable areas" in the mobile application [24] [7]. Elderly individuals, unsure if they have selected the correct button, often keep their fingers on the target, resulting in a prolonged tap. Depending on the mobile application, this behaviour may lead to unintended consequences, further confusing the users [36].

4.1.3 Cognitive Limitations. As individuals age, their cognitive abilities decline [7]. Elderly individuals experience a deterioration in their working memory as they grow older. This decline presents a greater challenge when it comes to performing tasks that involve multiple steps [12]. Consequently, when struggling, the elderly often blame themselves rather than attribute the difficulties to the application itself. An effective interface should assist users in achieving their objectives with minimal confusion and errors [31].

Often, it is reported that users experience issues associated with complex menu hierarchies. They tend to get lost while navigating [9] [10] [12] [14] [36]. It is common for the elderly to get confused by irrelevant decorations and animations [7]. Also, the use of technical and ambiguous terminology worsens the user experience [5]. Another inconvenience is the lack of guidance. Elderly report that they struggle to proceed because the application fails to provide enough instructions [29] [36].

4.1.4 Recommendations. Table 2 shows a collection of recommendations on how to overcome the challenges described in Section 4.1.

Category	Recommendations
Visual Limitations	• Use enlarged text and elements [25]. • Provide a zoom-in option [24]. • Make use of primary, secondary, and nuance colours to support usability [2]. • Integrate a voice control into the mobile application for simple commands, e.g., "Go back" [15].
Psychomotor Limitations	• The number of interactions required to complete an objective should be kept at a minimum [18]. • Simple structure and including only essential functionality is preferred [34]. • It is advisable to adhere to the traditional button-pressing method instead of employing dynamic concepts like scroll bars and "drag and drop" [28].
Cognitive Limitations	• A straightforward menu structure is preferable to a complex one, as it reduces the likelihood of users becoming disoriented or lost [13]. • It is advised to add information about the current menu item to help elderly users navigate [5]. • Non-essential animation should be avoided to reduce the risk of confusion [28].

Table 2. Design recommendations accustomed to the needs of the elderly

4.2 Menu design

As discussed in Section 4.1, seniors experience difficulties navigating through an application. An appropriate design could help increase usability. Research has been carried out on mobile application menu design for the elderly by Restyandito et al [27]. During this study, an experiment was executed with 60 individuals aged between 60 and 85 years old [27]. For this experiment, participants were asked to interact with the following three menu layouts:

- horizontal display: shows one item at a time allowing the user to see the big picture of the item [27].
- grid display: fits all items in a single screen at the expense of the image size [27].
- list display: combines the advantage of large pictures and multiple items on one screen [27].

The time required to perform a task was measured as well as the number of steps it took the participants to complete the task.

The results from the experiments show that the users were able to navigate through the grid display 45% faster compared with the horizontal one. A significant difference has also been observed when the list variant is compared to the horizontal design: 38% [27]. Furthermore, the grid and the list menus took respectively 19% and 14% fewer steps than the horizontal display. The study advises

using a grid or list display rather than a horizontal one as the latter requires a high mental load to memorize the options presented [27].

4.3 Design & Development

4.3.1 Technical specification. Based on the findings from the literature review, the low-fidelity prototype of the mobile application has been developed aiming to improve offline social interaction of the elderly. The application is called Elderlynk and was developed using Figma: a collaborative web application for interface design. The design is inspired by the recommendations in Table 2 and it aims to accommodate the needs of the older generations. The main goal of Elderlynk is to enhance the quality of life among individuals aged 65 years old and above. This is to be achieved by promoting social interaction in person with like-minded people.

Table 3 provides an overview of the prototype with a brief explanation on each page. Furthermore, Figure 2 shows the structure of the prototype. The lines represent the way the pages of Elderlynk are connected.

Page	Description
Start page	It allows users to login or create an account in case they do not have one yet.
Overview page	It provides an overview of the pages of Elderlynk and quick access to them
People in the area page	The user is shown an overview of other users on Elderlynk. For each user the profile picture, name, city of residence and interests are displayed. On the right, there is an option to send private messages
My messages page	It provides an overview of the user's current conversations.
Chat page	It represents the general design of private conversations.

Table 3. Page specification of Elderlynk

4.3.2 Design choices. The design of the lo-fi prototype of Elderlynk is based on the results of the literature review conducted during the study. It implements the majority of the enlisted recommendations in Table 2 to ensure an optimal user experience among the elderly.

The elements of the prototype, especially buttons, are enlarged to ensure that the elderly will be able to touch the target area without triggering another action by misclicking. As the suggestions from the literature review recommend the font size of regular large text should be 18 points or higher and for bold 14 points or higher. Regular small text is advised to be smaller than 18 points and for bold 14 points [27]. The lo-fi prototype adheres to those guidelines: the font size for large text is set at 24 and 20 points whereas small text is set at 16 points to ensure clear contrast.

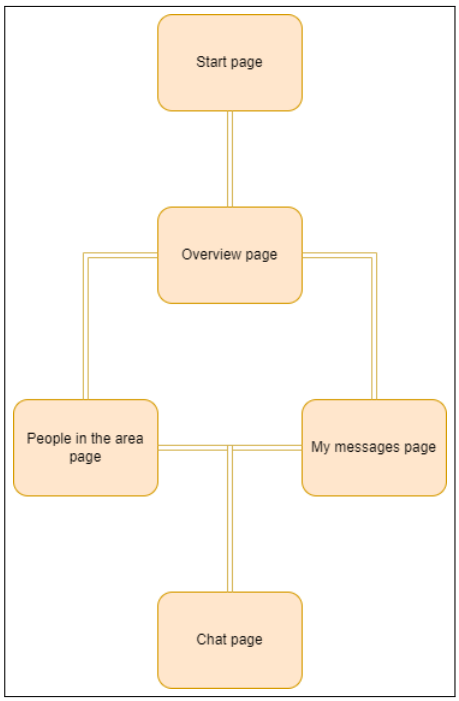

Fig. 2. Structure of Elderlynk

The colour palette consists of the warm colour orange and its fades towards white. These colours were chosen intentionally to enhance the user experience as users prefer the use of warm colours [11]. The fullest orange colour is used for the headers. Elements of the pages have a slightly lighter shade of orange. Even lighter shades indicate secondary buttons. The background was designed to be white for an appropriate contrast with the target areas. In addition, a brown "terug" (in English: "back") button on the chat page has been added which fits the colour palette but still contrasts well enough with the orange to be recognized as a clickable target.

The structure of the prototype is kept plain, and no unnecessary depth has been included. The maximum depth of the prototype is 3 clicks (4 clicks if we count going to the next page on the people in the area page). Users do not have to execute a long sequence of actions to reach their destination. For the overview page, people in the area page and my messages page the list display [27] has been employed. Each element of the overview page consists of an icon and descriptive name (see Figure 3). The components of the list display on the people in the area page consist of a profile picture, name, city of residence, and list of interests (see Figure 4).

As the literature review suggests the utilization of the traditional buttons provides a better user experience rather than slightly more advanced features ("drag and drop", scroll bar, etc.) [7]. Instead of a scrolling mechanism, the users can go to different pages by clicking on the corresponding buttons in case the number of elements exceeds the page space.

Fig. 3. Overview page

Fig. 4. People in the area page

Lastly, no animations are included as they have been identified as confusing and contributing to an overall lower user experience among the elderly [7].

4.4 User testing

To test the lo-fi prototype, a semi-structured interview was conducted. The interview procedure is explained in Table 1. As mentioned in Section 3, the aim was to test the prototype on both a smartphone and a tablet. However, due to the lack of participants, the test on a smartphone was preferred [20]. Ten seniors were contacted verbally. Out of the 10, five were able to participate in the study. Due to personal circumstances, the other five participants withdrew from the study. The age range of the remaining individuals is between 65 and 75 years old.

4.4.1 Observations. After the interviews, the audio recordings got transcribed and analyzed. Because the interviews were conducted anonymously, I refer to the participants as Participant 1, Participant 2, etc. The observations of the user testing are as follows.

The majority of the participants were able to successfully execute all tasks. There is a trend observed in the difficulties that the interviewees experienced. Participants 3 and 4 unintentionally committed prolonged taps which resulted in an unexpected outcome. This led to a slight confusion, nevertheless, after a few tries they managed to properly click the buttons without assistance from the researcher.

On the other hand, Participant 1 found it quite challenging to execute the tasks. This outlier can be explained by the fact that all other interviewees had prior experience with the touchscreen feature on a smartphone while Participant 1 did not. That person had a strong opinion on mobile technology: "... smartphones are the worst thing to happen to our society". According to them smartphones limit the social interaction between people rather than enhance it. When asked in what other ways the quality of their life can be improved they expressed that the authorities fail to understand the needs of the elderly, a phenomenon also observed in the literature review [39] [3]. Also, they explained that, in their opinion, the elderly do not wish to reveal their true needs due to the fear of opening up about their feelings. Logically, they did not express interest in using Elderlynk if it is to be implemented.

In contrast to that, the other four participants expressed interest in Elderlynk and explained that in their opinion Elderlynk has the potential to enhance the quality of their life by improving their social interactions. However, the interviewed elderly indicated some challenges related to bringing out Elderlynk: Participants 2 and 3 made it clear that they would use the application but will contact only people that they have already met. Participant 5, recognized the distance as a potential obstacle: "I prefer to meet people from my town I would probably not reach out to people that are further away".

5 DISCUSSION

The elderly population in the Netherlands is growing both in absolute numbers and as a percentage of the total population. The majority prefer to live at home, instead of in a retirement home. The elderly are known to have special needs and those must be provided to sustain a high quality of life. The already existing study base discloses that the elderly experience a decrease in cognitive abilities such as working memory and the ability to filter out relevant information. Even though technology is meant to improve their quality of life, often seniors reject it because it does not facilitate the needs of the older generation. The literature review provided several challenges regarding designing a mobile application for the elderly. Those were grouped into three categories: visual limitations, psychomotor limitations, and cognitive limitations. These were related to issues such as reduced eyesight, difficulties distinguishing colours, complex application structure, unfamiliar features (scroll,

"drag and drop"), irrelevant animation, and unknown terminology. Furthermore, a list with recommendations was provided ensuring optimal user experience among the elderly. Another essential feature is the structure of a menu in a mobile application. From the study conducted on the topic, it appears that a grid and a list display allow the elderly to navigate more easily through an application [27].

Based on the recommendations and insight gained from the literature review, a new concept for a meetup application for the elderly was created. Elderlynk, as it is called, focuses on promoting social interaction in person in the hope of enhancing the quality of life among seniors. A low-fidelity prototype was designed. It was used to carry out user testing in the form of an interview targeting adults aged 65 years and older.

This study aimed to discover in what way a meetup application can improve the quality of life among the elderly in the Netherlands. The results of the user testing show interest in both the application's concept and design. Most of the interviewees express curiosity about this new idea and are open to trying because they believe it could help them meet new people. Regarding the functional aspects, the majority of the participants found it quite intuitive to use Elderlynk.[2]

However, a few concerns have been raised during the interviews. Two participants would be open to contacting only people they have already met (no strangers). Also, the distance could become a limiting factor as one of the interviewees prefers to meet people that live in the same city. On the technical side, currently, Elderlynk was tested on a smartphone. During the interview, Participant 4 explained that, in their opinion, a tablet can accommodate such an application better.

5.1 Limitations of the research

5.1.1 Limited user testing. Due to the small number of participants, it was not possible to employ AB user testing: Group A interacts with the prototype on a smartphone, and Group B on a tablet. Also, as mentioned in Section 4.4, due to a sudden drop in the number of participants the user testing was executed with five people (the minimum). Because of this, the feedback on the prototype was limited.

During the interview, the majority of the participants explained that creating an account is a process they struggle with the most. However, during the user testing, this feature was not a subject of testing, therefore a limitation. Also, as per the literature review, Section 4, the elderly experience difficulties using a virtual keyboard. Because Figma does not support a textual input component, no interaction with a virtual keyboard was implemented in the lo-fi prototype limiting the scope of the user testing.

5.1.2 Scalability. Another limitation would be scalability. For Elderlynk to be successful, it requires a sufficient start user base. If this requirement is not met users would lose interest by the lack of other active users. This will most likely result in them quitting using Elderlynk. In other words, the limiting factor is that there must be already other users to spark the interest of new users.

[2]With a minor exception of prolonged taps

5.2 Future work

As the title of this study suggests, these are the first steps towards the development of Elderlynk. There is still work to be done in the future.

5.2.1 Improved user testing. To identify non-trivial usability problems, more user testing is required. I propose a semi-structured interview with the same format as the one conducted during this study. However future user testing should be done with an updated lo-fi prototype including the functionality of creating an account and the opportunity of integrating a virtual keyboard. Also, two study groups should be formed: one using a smartphone and the other using a tablet. The number of participants should be at least 30 equally distributed between the two groups. According to Nielsen Norman Group, these numbers are sufficient for user testing [8]. A factor that might influence technology acceptance is the level of education. Collecting this piece of data during the interview could provide important insights into the future development process.

5.2.2 Hi-fi prototype. Upon recognizing the usability issues ascertained from the insights obtained during the improved user testing, proposed in Section 5.2.1, a high-fidelity prototype shall be developed. Upon its completion, a subsequent round of user testing with a single study group shall be conducted. Consideration will be given to the participants' preferences from the improved user testing regarding the type of device: smartphones or tablets. The high-fidelity prototype brings us one step closer to implementing Elderlynk and hopefully enhancing the quality of life among the elderly.

6 CONCLUSION

Elderly people have different needs than younger age groups. Those needs are the result of reduced physical and mental capacity. In order to make technology accessible to the elderly, those factors need to be considered in the design phase of a meetup mobile application. The sight of the elderly worsens as they age and therefore elements such as images, buttons, and clickable targets on the screen should be sufficiently large. Also, the old eye is more sensitive to strong colour contrasts so the design should employ less bright colours with primary, secondary, and nuanced colours. The reduced capacity of working memory of the elderly is to be considered as well. Unfamiliar concepts and functions, such as "drag and drop", confuse older people and should be avoided. It is advisable to keep the structure of the application simple. Navigating through deep and complex menus has been identified as an issue the elderly experience while using technology. Technical and ambiguous terms, as well as, unnecessary animations have also been proven to contribute to the complexity that overwhelms the elderly. The proper implementation of these guidelines is believed to lead to an optimal user experience for an elderly meetup application.

In conclusion, Elderlynk seems to have sparked the interest of the public. The majority of the elderly who participated in the user testing believe that this meetup application can enhance the quality of their life by improving their social interactions in person.

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