

Development of Wireframes for a Webbased Platform supporting Municipalities in Lower Austria in implementing Offers for older People to increase Digital Literacy regarding Social Integration

Master Thesis

For attainment of the academic degree of **Master of Science in Engineering (MSc.)**

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Declaration

I declare that I have developed and written the enclosed Master Thesis completely by myself, and have not used sources or means without declaration in the text. Any thoughts from others or literal quotations are clearly marked. This work was not used in the same or in a similar version to achieve an academic grading or is being published elsewhere.

Rosenheim, 26.08.2022	Laura Cheller	
Place, Date	Signature	

Preface

Since my previous bachelor thesis dealt with the topic of digitization of on-site pharmacies in the German city of Rosenheim and a survey conducted in this context revealed, among other things, that the older population is critical concerning digital technologies (in the sector of pharmacies) due to a frequent lack of digital literacy, I am delighted to take up the topic of increasing digital literacy of older people in my master thesis.

In this sense, I would especially like to thank my supervisor Mag.a Dr.in Petra Plunger, MPH, who suggested this topic and has always supported and motivated me both internally at the University of Applied Sciences St. Pölten and subsequently as an external supervisor. With her enormous expertise she gave me new ideas and approaches which contributed immensely to the completion of my master thesis.

Furthermore, I would like to thank my family and friends who were a great support during the whole process of writing my master thesis.

Abstract

Background: The use of digital media can have a positive effect on the social integration of older people. However, they do not always have the necessary digital literacy and are not constantly supported in learning or improving them efficiently as well as according to their needs. Municipalities are important players in the design and implementation of support services.

Objective: The aim of this master thesis is therefore to develop wireframes for a web-based platform for municipalities in Lower Austria. On the one hand, the platform should help to sensitize and motivate municipal staff regarding the topic of increasing digital literacy among older people. On the other hand, it should be possible to plan support offers interactively.

Methods: A research on initiatives was used to analyze the different approaches for supporting older people in learning digital literacy. Four expert interviews supplemented the results with the point of views of municipalities, initiatives, and experts in the field of gerontology. The interviews were analyzed using qualitative content analysis. The results of the research on initiatives as well as interviews were summarized and included in the development of wireframes for a web-based platform for municipalities.

Results: The clustered catalog of requirements consists of a total of five themes of the initiative research and ten themes of the expert interviews which were divided into three implementation types for the development of the wireframes. The requirements included in the wireframes could be implemented with the help of Figma[®].

Conclusion: In summary, municipalities have an important role concerning the implementation of learning opportunities. The wireframes for the web-based platform give an idea of how municipalities can be introduced to the topic of increasing digital literacy among older people and what roles municipalities can take on.

Keywords: Digital literacy, Older people, Municipalities, Support

Kurzfassung

Hintergrund: Die Nutzung digitaler Medien kann sich positiv auf die soziale Integration älterer Personen auswirken. Diese besitzen jedoch nicht immer die dafür notwendigen digitalen Kompetenzen und werden beim Erlernen und Verbessern dieser nicht stets effizient sowie ihren Bedürfnissen entsprechend unterstützt. Für die Gestaltung und Umsetzung von Unterstützungsangeboten sind Gemeinden wichtige Akteure.

Zielsetzung: Ziel dieser Masterarbeit ist es daher, Wireframes für eine webbasierte Plattform für Gemeinden in Niederösterreich zu entwickeln. Die Plattform soll zum einen dazu dienen das Gemeindepersonal bezüglich der Thematik der Steigerung digitaler Kompetenzen bei älteren Personen zu sensibilisieren und motivieren. Zum anderen sollen Unterstützungsangebote dadurch interaktiv geplant werden können.

Methoden: Mithilfe einer Initiativenrecherche wurden die unterschiedlichen Ansätze für die Unterstützung älterer Personen beim Erlernen digitaler Kompetenzen analysiert. Vier Expert*inneninterviews ergänzten die gewonnenen Erkenntnisse anhand von Meinungen aus Sicht von Gemeinden, Initiativen und Expert*innen im Bereich Gerontologie. Die Interviews wurden anhand einer qualitativen Inhaltsanalyse ausgewertet. Die Ergebnisse der Initiativenrecherche sowie Interviews wurden zusammengefasst und flossen in die Entwicklung von Wireframes für eine webbasierte Plattform für Gemeinden ein.

Ergebnisse: Der geclusterte Anforderungskatalog besteht insgesamt aus fünf Themen der Initiativenrecherche und zehn Themen aus den Expert*inneninterviews, die in drei Implementierungsarten für die Entwicklung der Wireframes aufgeteilt wurden. Die Anforderungen, die in die Wireframes einfließen sollen, konnten mithilfe von Figma® umgesetzt werden.

Schlussfolgerung: Zusammenfassend lässt sich sagen, dass Gemeinden für die Umsetzung von Lernangeboten eine wichtige Rolle haben. Die Wireframes für die webbasiert Plattform vermitteln eine Vorstellung darüber, wie Gemeinden das Thema der Steigerung digitaler Kompetenzen bei älteren Personen nähergebracht werden kann und welche Rollen Gemeinden übernehmen können.

Schlüsselwörter: Digitale Kompetenzen, Ältere Personen, Gemeinden, Unterstützung

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1 Introduction

Digitization as well as the use of digital media are nowadays taken for granted in both private and professional contexts (Kubicek, 2019). Therefore, the master thesis deals in more detail on how digitization and the increase of digital literacy can be brought closer to older people at the municipal level. According to this, the subchapters of the introduction first show the background and motivation of the thesis (chapter 1.1). Afterwards, the underlying problem (chapter 1.2), aim and research questions (chapter 1.3) as well as the content and structure of the thesis (chapter 1.4) are presented.

1.1 Background and Motivation of the Thesis

In addition to the technical component of digitization, which represents the presentation, storage, processing, and duplication of data, digitization has also a social alignment. The technical change thus has an impact on society, for example in terms of communication and maintaining contacts with others. This is referred to as the digital transformation (of society), which, among other things, gives the older population new opportunities to shape their everyday lives and participate in social life (Berner et al., 2020, p. 7).

The use of the Internet and digital applications can simplify the participation in social life as well as increase independence. However, this requires certain skills in using digital applications, especially digital literacy and confidence in one's abilities. In addition, structural, cultural, and individual conditions must be considered. Structural conditions refer to whether it is possible to use digital offerings at all, for example, because of the existing infrastructure (Stubbe et al., 2019, p. 6). From a cultural point of view the challenge is whether older people are willing to use digital tools or whether age stereotypes are more of an obstacle (Kollewe, 2016). Individual conditions for example refer to the question if older people with low digital literacy can acquire digital skills by themselves or if support services are necessary (Berner et al., 2020, p. 36). Compared to people who are more digital affine the way to a digital lifestyle shows challenges for older people with low digital literacy. Those may feel overwhelmed and deterred by the

numerous technological hurdles. At the same time a competent use of the Internet and digital technologies can offer opportunities to older people in many areas of everyday life to make their lives easier, maintain contacts and obtain information. As an essential prerequisite for social participation it is therefore important to integrate this population group by fostering digital skills (Hommel, 2019).

1.2 Explanation of the Problem

In general, older people are equally capable of managing their daily life competently compared to other population groups of a society. In this way, they are also able to act competently and independently in terms of digital transformation. However, depending on the individual's level of knowledge this requires support and advice for learning and increasing digital literacy. Thus, it can be said that as soon as older people cannot competently use existing digital technologies the opportunities of these cannot take hold either (Berner et al., 2020, p. 10).

Following the background and motivation of the master thesis it is shown that older people are not always supported efficiently and according to their needs on the way to learn and increase digital literacy (Stubbe et al., 2019, p. 40), even if the need of support tailored to their needs can be clearly shown (Weiß et al., 2017, p. 16). The municipal level and the municipalities themselves are important players in the design and implementation of offers and services relating to the learning of digital skills for older people (Berner et al., 2020, p. 46). Therefore, it is crucial that there are local, professionalized learning and support opportunities that enable the development of digital skills. Municipalities should take on this task as part of the municipal provision of public services (Berner et al., 2020, p. 35). According to this, the master thesis focuses on supporting the staff of municipalities. More precisely, a special focus is placed on rural communities in Lower Austria. In these, the use of digital tools by older people tends to be lower than in urban communities, indicating the relevance of needs-based learning and support opportunities for digital literacy (Williger & Wojtech, 2018, p. 8). In general, according to the Eighth Report on Aging (Berner et al., 2020), six areas of life that are significant for older people and in which the use of digital technologies can have an impact can be identified. This includes the areas of housing, mobility, social integration, health, care as well as social space. For the master thesis the area of social integration was chosen because it is of particular interest to both the elderly population and the municipalities. Social integration is important for the elderly population and municipalities, as social isolation can have a negative impact on the health of those affected and thus on life in a municipality. Establishing or maintaining contacts through digital offerings is therefore more important than ever (Berner et al., 2020, pp. 17, 18).

1.3 Aim and Research Questions of the Thesis

The master thesis thus focuses on the development of wireframes for a web-based platform for municipalities in Lower Austria. The platform will be used to empower and raise awareness among municipal staff on how to support older people in learning as well as improving their digital literacy in the field of social integration. The service platform is intended to create the possibility that the implementation of offers for older people to increase digital literacy can be planned and designed by municipalities easily, interactively, and tailored to the needs of older people as well as the municipalities themselves. The web-based platform thus represents a central point of contact for the implementation of learning offers for digital literacy for older people.

In line with the aim of the master thesis the central research questions, on which the content and structure of the thesis are followed, are:

- [1] What approaches to increase digital literacy in the area of social integration already exist at the municipal level that meet the individual needs of older people?
- [2] How can municipalities be supported to be able to provide needs-based learning and support possibilities for digital literacy for older people?

Figure 1 illustrates the central research questions as well as the aim of the master thesis and the associated chapters.

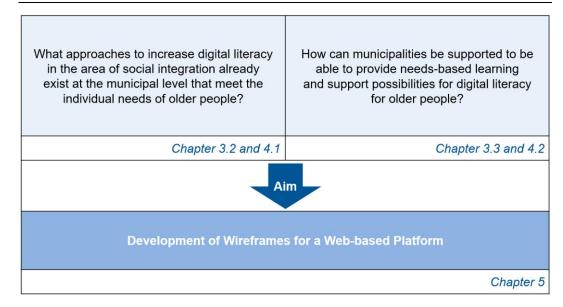


Figure 1: Research Questions and Aim of the Thesis

1.4 Content and Structure of the Thesis

For the aim explained in chapter 1.3 the thesis is divided into a theoretical as well as conceptual, an empirical, a technical, and a closing part after the introduction (chapter 1).

Chapter 2.1, the beginning of the theoretical and conceptual background, deals with the definition of social integration (chapter 2.1.1) as well as regarding social integration from a public health perspective (chapter 2.1.2). Chapter 2.2.1 defines digital literacy before chapter 2.2.2 looks at digital literacy regarding social integration. Following this, digital literacy among older people is addressed in chapter 2.2.3. Chapter 2.3 is all about municipalities and addresses in chapter 2.3.1 the tasks and functioning of a municipality in more detail before chapter 2.3.2 figures out why digital literacy and social integration are relevant for a municipality.

The empirical part of the master thesis, beginning with chapter 3, describes first the study design (chapter 3.1). For answering the first research question about what approaches to increase digital literacy in the area of social integration already exist at the municipal level that meet the individual needs of older people figured out in the previous chapters, a research on initiatives to increase digital literacy regarding social integration took place. For this, chapter 3.2 describes the procedure of the research on initiatives as well as the sampling and data collection. The second research question, beginning with chapter 3.3, deals with the question about how municipalities can be supported to be able to provide needs-based learning and support possibilities for digital literacy for older people. For this,

chapter 3.3.1 describes the sampling and data collection of the performed expert interviews, while chapter 3.3.2 focuses on the data analysis.

In chapter 4 the results of the two methodological parts carried out are presented. Thus, chapter 4.1 shows the results of the research on initiatives and chapter 4.2 the results of the expert interviews. More specifically, chapter 4.2.1 presents the main statements of the expert interviews, before chapter 4.2.2 gives a short resumé. The results of the research on initiatives (chapter 4.1) as well as the results of the expert interviews (chapter 4.2) are combined in chapter 4.3 in a so-called clustered catalog of requirements which builds the basis to develop the wireframes for the web-based platform.

Chapter 5 deals with the technical part of the master thesis in which the creating of the wireframes is described first (chapter 5.1) and the implementation of the wireframes using Figma[®] is shown afterwards (chapter 5.2). More specifically the implementation includes the wireframes for the page *Home* (chapter 5.2.1), for the page *Theme* (chapter 5.2.2), for the *Service Catalog* (chapter 5.2.3), for the page *Help* (chapter 5.2.4) as well as the wireframes for the *Service Portal* (chapter 5.2.5).

After the technical part of the master thesis the results concerning the research questions as well as wireframes are critically appreciated in chapter 6, the beginning of the closing part. The master thesis ends with a conclusion and an outlook on further, open research topics in chapter 7.

2 Theoretical and Conceptual Background

The following chapters (chapters 2.1 to 2.3) provide a theoretical and conceptual insight into the central concepts of this master thesis. These form the basis for the further parts of the thesis and strengthen the importance of the topic of supporting municipalities in Lower Austria in implementing offers for older people to increase digital literacy regarding social integration.

2.1 Social Integration

Integration as such deals to include people in a society. A country's integration policy thus has for example the task of giving immigrants the same opportunities to participate in the economic, social, and societal spheres as the native population (Bundesministerium des Innern und für Heimat, n.d.).

On the other hand, integration can also refer to native groups of people such as the elderly. Regarding this group a differentiation is made between economic, political, cultural, and social integration (Amann, 2018, p. 11). Older people can be socially integrated into society, for example through their social networks, activities in associations, or voluntary work (United Nations Economic Commission for Europe, 2010, p. 2). In this manner, the following chapter (chapter 2.1.1) goes one step deeper into integration and defines the term of social integration, first in general and further on using the example of older people in a society. Chapter 2.1.2 then looks at social integration from a public health perspective and defines the effects of social integration on the health of older people as well as for municipalities themselves.

2.1.1 Definition of Social Integration

Social integration can be seen as a process of building values, relationships, and institutions for society. With this, all people can fully execute their rights and responsibilities on an equal basis with others. Variables such as race, gender, age, origin, or religion are not considered. These principles serve as a prerequisite for a stable, secure, and equal society in which the same opportunities exist for all groups of people. The term is closely related to the concept of social cohesion. This refers to the ability of a society to ensure the well-being of its members,

minimize inequalities and avoid polarization as well as conflicts. It also requires the cultivation of solidarity and reciprocity between generations.

Social integration concerning older people refers for example to the integration into social networks of families and friends as well as to the integration into the communities in which they live and into society as a whole. The task of a society is to integrate older people in order to ensure their participation in a socially cohesive society for all ages. Indeed older people may be at risk of exclusion due to for example low levels of education, lack of access to services, or age discrimination (United Nations Economic Commission for Europe, 2010, p. 2).

2.1.2 Social Integration from a Public Health Perspective

For older people in particular health is a core issue that affects all areas of everyday life (Weiß et al., 2017, p. 12). Thus, due to health, the self-determination, wishes as well as plans of older people are shaped. A life in health does not only refer to the medical perspective (Weiß et al., 2017, p. 45), it also has an impact on the participation in social life as well as on the fulfillment of individual and family wishes (Weiß et al., 2017, p. 12). Accordingly, this chapter first addresses what health is and how it is influenced, then shows the effects of a lack of health on older persons as well as municipalities.

In general, health can be seen as something holistic that includes multiple dimensions. These can interact positively as well as negatively. The different dimensions are shown by the inner circle of figure 2, which are the physical, psychological, social, sexual, spiritual as well as emotional health.

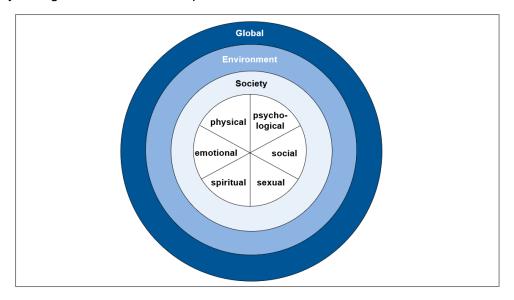


Figure 2: Dimensions of Health Adapted from (Naidoo & Wills, 2019)

The consideration of the dimensions is always an individual one. Accordingly, starting from the individual, the social dimension refers for example to the social support from other individuals or groups of people. An individual's health can now be influenced by the wider environment, more specifically by the global level, the natural and built environment as well as society (see outer circles of figure 2). Social factors of influence refer for example to the extent to which an individual is integrated in or excluded from society (Naidoo & Wills, 2019, p. 56 ff.).

The so-called determinants of health according to Dahlgren and Whitehead (1991) can be now used to further explain what the health of an individual or the population as a whole is influenced by. These factors are illustrated in figure 3.

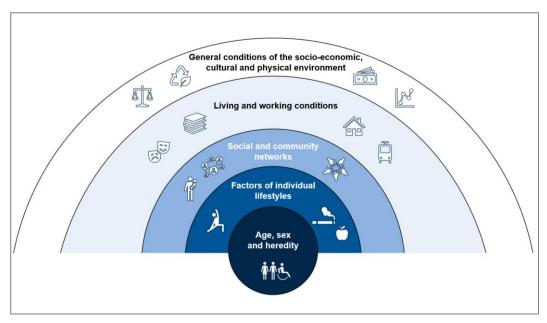


Figure 3: Determinants of Health according to Dahlgren and Whitehead (1991)

Adapted from (Fonds Gesundes Österreich, n.d.)

As shown by the (half) circles in figure 3 the individual factors can be divided into five levels. The inner level, with which age, gender, and hereditary factors are considered, is the only one that cannot be influenced. The four outer levels can be changed and thus represent approaches for health promotion. The level which is particularly relevant for this master thesis is the third level. In this social and community networks are considered. More specifically, social support and social cohesion, the inner social network, the parent-child bond, the family as well as couple relationships and friendships (Fonds Gesundes Österreich, n.d.).

According to the basic definition of health, social isolation and the associated lack of social integration of older people can have negative effects on health. However, this does not always show itself in those affected (Berner et al., 2020, p. 23).

Social isolation can occur due to functional impairments for example such as hearing loss or low mobility, or due to the loss of a partner (United Nations Economic Commission for Europe, 2010, p. 3). This reinforces the statement that social relationships are of great importance throughout the life course. For older people social relationships mean for example emotional support, instrumental help, and financial assistance (Berner et al., 2020, p. 23). Social contacts also create security and reliability (Stubbe et al., 2019, p. 31) and are the basis for collective activities and the exchange of information. The challenge that the social network of older people usually becomes smaller by increasing age and a person is thus socially isolated must therefore be counteracted (Berner et al., 2020, p. 23). The experience in this area shows that older people who are socially integrated have a higher quality of life and can live longer as well as healthier (United Nations Economic Commission for Europe, 2010, p. 2).

2.2 Digital Literacy in general

The term literacy itself is generally understood as the combination of knowledge and skills necessary to cope with various requirements for action (Bundesinstitut für Berufsbildung, n.d.). Empirical educational research goes one step further and defines literacy as "internal dispositions and representations of knowledge, skills as well as abilities that can be learned and taught and that reflect fundamental requirements for action within a subject or an occupational field" (Bundesinstitut für Berufsbildung, n.d.). The following chapters should therefore define literacy in the field of digitization (chapter 2.2.1) as well as digital literacy regarding social integration (chapter 2.2.2) and with the focus on older people (chapter 2.2.3).

2.2.1 Definition of Digital Literacy

Digital literacy belongs to the key competencies defined by the European Union, published in 2018 (Bundesministerium Digitalisierung und Wirtschaftsstandort, 2021, p. 13) and is part of the generic term digital sovereignty. The latter is more far-reaching in its meaning than the literacies themselves and includes, in addition to digital literacy, the following subareas which can be seen in figure 4.

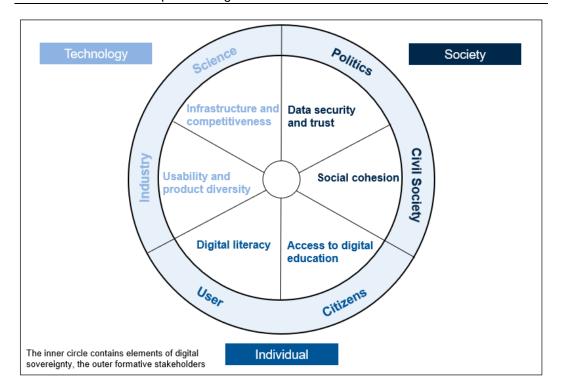


Figure 4: Digital Sovereignty *Adapted from* (Stubbe et al., 2019, p. 20)

Following the previous figure, it can be said that digital sovereignty is not a purely conceptual, abstract term but rather a demand on society to establish sovereignty for all generations. The focus is not just on the individual, on the contrary demands are also made on the industry and science themselves as well as on society (Stubbe et al., 2019, p. 20).

Underlying this differentiation the term of digital literacy refers more specifically to the knowledge and skills required to use information- and communication technologies as well as digital media and, more generally, to deal with digitization in a self-determined manner (Stehling, 2021). From a broader perspective, these are the abilities of an individual to behave in a reflected, appropriate, and individually as well as socially responsible manner in professional, social, and private situations. Digital literacy is therefore concerned with the appropriate use of digital technologies and with reflecting on how to deal with them (Stubbe et al., 2019, p. 21). In addition, digital literacy can be understood as a collective term that covers various sub-disciplines. The following list shows exemplary sub-disciplines, which are explained in more detail afterwards:

- Information literacy
- Computer literacy

- Media literacy
- Communication literacy (Covello, 2010, p. 4)
- Social media literacy
- Big data literacy
- Literacy for content production
- Literacy for digital design (Schmitz, 2022)

Information literacy covers, among other things, literacy regarding the finding, analyzing as well as evaluating the credibility of sources. Computer literacy includes the competencies which are necessary to be able to use a computer and software. Media literacy contains a variety of communication skills such as accessing information in general, analyzing it and communicating in different ways. Communication literacy refers to the competencies that enable people to communicate as individuals and work collaboratively in groups using digital technologies and systems such as the use of chat and video conferencing (Covello, 2010, p. 4). Social media literacy deals with the competent use of social networks. For collecting and structuring as well as evaluating large amounts of data, big data literacy is needed. Content production aims to design and create digital content such as videos, for which skills geared towards this are also required. Digital design involves another step of digital content creation, that of creating digital interfaces, such as apps (Schmitz, 2022).

A further classification of digital literacy can be made by the competence model DigComp 2.2 AT (Bundesministerium Digitalisierung und Wirtschaftsstandort, 2021). This model is the Austrian version of the European DigComp 2.1 reference framework through which digital literacy can be assessed and improved in view of social, economic as well as technical developments (Bundesministerium Digitalisierung und Wirtschaftsstandort, 2021, p. 4). The multidimensional competence model divides digital literacy, illustrated in table 1, into six areas, which are further described by 25 individual competences.

Table 1: Competence Model DigComp 2.2 AT

Area	Individual competences	
	Understand concepts of digitization	
Basics and Access	Operate digital devices	
	Use and provide inclusive forms of access to	
	digital content	

	- Decearch approb and filter data information as	
	Research, search and filter data, information as	
Handling information and	well as digital content	
data	Critically evaluate and interpret data,	
uata	information, and digital content	
	Manage data, information, and digital content	
	Communicate using digital technologies	
	Share data and information as well as	
	collaborate using digital technologies	
Communication and	Use digital technologies for social participation	
cohesion	Make purchases and sales	
	Use appropriate forms of expression	
	Design the digital identity	
	Develop digital content	
	Integrate and recreate digital content	
Digital content creation	Rights of use and licenses	
	Programming and automating processes	
	Protect devices	
	Protect personal data and privacy	
Security	Protect health and well-being	
	Protect against fraud and consumer rights	
	abuse	
	Protect the environment	
	Solve technical problems	
	Identify needs and technological responses to	
	them	
Problem-solving and	Deal creatively with digital technologies	
further learning	Identify digital literacy gaps (Bundesministerium	
	Digitalisierung und Wirtschaftsstandort, 2021,	
	p. 7 f.)	
	<u> </u>	

Following these, for the basic understanding relevant definitions and classifications it can be further addressed that the digital literacies required to use digital offerings play an important role for the entire population. Many people use digital technologies in their everyday lives and need the appropriate skills to do so. Even those who do not actively use digital offerings come into contact with them indirectly, which is the reason why it is necessary to build up digital literacy here as well (Berner et al., 2020, p. 6). It cannot be assumed that there are analog alternatives to all digital offerings. It is important that those who want to build up

digital literacy also have access to learning and support services (Berner et al., 2020, p. 35). It is also important to counteract the digital divide. Technical infrastructural requirements such as the availability of Internet access, financial requirements, and requirements for knowledge of digital products are not homogeneous in a society (Berner et al., 2020, p. 13).

2.2.2 Digital Literacy regarding Social Integration

Since digitization is generally changing the way people communicate and interact with each other (Berner et al., 2020, p. 7) and since digital communication technologies are becoming more widespread and widely used, additional opportunities are being created for establishing and maintaining contacts. For these opportunities to be effective digital literacy needs to be adapted to ensure low-threshold access to social contacts (Berner et al., 2020, p. 24 f.) and to make everyday life easier (Berner et al., 2020, p. 7). Regarding social integration digital literacy thus plays a key role in maintaining and expanding opportunities for interaction (Berner et al., 2020, p. 16) and counts as a key to social participation (Kubicek, 2019, p. 6). The competent use of digital media will continue to be a prerequisite for social participation in the future (Stubbe et al., 2019, p. 18) which can have a positive impact on feelings of loneliness, provided it is considered that digital relationships do not replace real relationships (Berner et al., 2020, p. 24 f.).

Following the definition and exemplary sub-disciplines of digital literacy given in the previous chapter (chapter 2.2.1), the following four sub-disciplines as well as two areas from the competence model DigComp 2.2 AT are of particular importance regarding social integration.

Table 2: Sub-disciplines and Areas from the Competence Model DigComp 2.2 AT regarding Social Integration

Sub-disciplines	Related areas from the competence model DigComp 2.2 AT
Computer literacy	Basics and Access
Media literacy	no similar area from the competence model
Communication literacy	Communication and cohesion
Social media literacy	no similar area from the competence model

Computer literacy is in general as well as concerning social integration a basic prerequisite. Only if a computer can be used, digital offerings can be applied, for example in terms of social integration (Schmidt, 2020). The competence model also addresses these prerequisite literacies in the Basics and Access area. More specifically, it talks about the operation of digital devices and the understanding of digital terms (Bundesministerium Digitalisierung und Wirtschaftsstandort, 2021, p. 26). Furthermore, media literacy and communication literacy are required for social integration based on digital offerings. Thus, the use of chat and video conferencing is a key aspect of digital social integration (Schmidt, 2020). The area of communication and cohesion and its competences are also about interacting as well as participating in society through digital technologies and communication tools (Bundesministerium Digitalisierung und Wirtschaftsstandort, 2021, p. 26). Social media and the literacy required are also needed for social integration as well as the digital skills. Social media can be used to establish and maintain contacts which has a positive effect on social integration (Boenisch & Sachse, 2019, p. 68).

2.2.3 Digital Literacy among older People

To deal with digital literacy among older people it is first necessary to consider them as a whole. In general, it can be said that older people are not a homogeneous group. For example, "their life situations differ the older they are" (Berner et al., 2020, p. 8). In addition to age, older people also deviate in their manner and behavior, for example based on gender, level of education and income. Accordingly, it is difficult to speak of older people as one social group.

Regarding digitization, older people cannot be generalized as a group either. The negative, outdated, and generalized image that older people are not digital must be countered. Figure 5 shows that the percentage of older people with access to the Internet around retirement (aged 61 and over) in Germany is in the meantime by 66 percent on average.

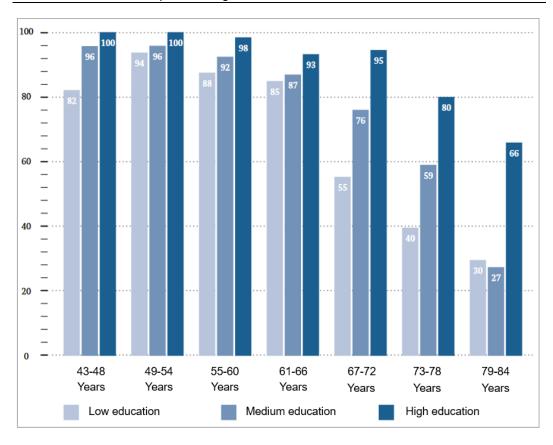


Figure 5: Percentage of people with access to the Internet by age group and education *Adapted from* (Berner et al., 2020, p. 14)

Looking more closely there are major differences, for example in the level of education of older people. Older people with low and medium levels of education use digital services less than older people with high levels of education.

Based on this, a general distinction can be made between three types of older people regarding digitization. Those who already use digital offerings, those who would like to use them but cannot, due to a deficiency of skills and other technical or infrastructural requirements such as a lack of Internet access and those who do not use them and do not want to. As a result, there is often talked about the so-called digital divide. For those older people who cannot use digital offerings due to a lack of skills it is important to consider whether they can acquire the necessary skills themselves. If not, or only to a limited extent, they should receive support. After all, digital technologies and the associated digital literacy have the potential to significantly improve the living situations of older people (Berner et al., 2020, pp. 8–13). For older people it is not just a matter of acquiring digital skills in order to be able to use digital offerings but rather of remaining a responsible, sovereign part of society (Weiß et al., 2017, p. 17).

Since older people are not a homogeneous group their needs are also very different in general as well as in terms of acquiring digital literacy (Amann-Hechenberg et al., 2015, p. 37). For example, for numerous older people using technology daily is necessary for learning digital literacy. For others, it is a routine that have to be followed (Weiß et al., 2017, p. 16). Furthermore, older people would like to receive assistance in acquiring digital skills, both in the form of written materials such as user manuals but also in the form of personal support (Amann-Hechenberg et al., 2015, p. 3). Personal support is aimed at learning settings adapted to the target group. Suitable learning formats for older people that are used by the target group include for example lectures, courses, personal consultations, and consultation hours. Interactions, for example workshops, are also accepted by older people. On the other hand formats with creative elements and the use of creative tools are often less suitable for older people because they require specific technical equipment and are also used less frequently (Stubbe et al., 2019, p. 40).

2.3 Municipalities

Since the thesis deals with the increasement of digital literacy of older people in the context of municipalities, this chapter looks, after a general introduction, at the tasks and functioning of a municipality as well as the relevance of digital literacy and social integration.

"A municipality is the smallest self-governing political unit in Austria" (*Was Ist Eine Gemeinde?*, n.d.), consisting of a municipal council, a municipal board and a mayor. The tasks which are assigned to a municipality in general as well as in contrast to the federal government and the state are written in the federal constitution, the so-called *Bundesverfassung*. The municipal constitution, the Austrian *Gemeindeverfassung* contains the principles of municipal self-government. In the Municipal Code (*Gemeindeordnung*) the organization of the municipality as well as the tasks of the organs are shown. In addition, the rights and duties of the citizens are presented (*Was Ist Eine Gemeinde?*, n.d.).

In Austria there are a total of 2098 municipalities which are distributed among nine federal states. Furthermore, in addition to the municipalities themselves, there are also market municipalities, town municipalities, cities, and statutory cities (Gemeinden in Österreich - Informationen Zum Österreichischen Gemeindewesen Und Deren Gesundheitsdienstleister, n.d.). In general, every area in Austria belongs to a municipality which is required by law (Gemeinde, n.d.). Chapter 2.3.1 explains the tasks and functioning of a municipality to get a fundamental

understanding of the target group while chapter 2.3.2 is based on this to show the importance of digital literacy and social integration for a municipality. This serves as a basis for highlighting the relevance of the topic area, increasing digital literacy regarding social integration, that is addressed in this master thesis.

2.3.1 Tasks and Functioning of a Municipality

In general, municipalities are responsible for a wide range of organizational and administrative tasks (*Gemeinden in Österreich - Informationen Zum Österreichischen Gemeindewesen Und Deren Gesundheitsdienstleister*, n.d.). Statutory cities additionally have tasks of the administrative division of Austrian districts. Cities at the municipal level perform federal tasks additionally (*Gemeinde*, n.d.). Considering the tasks more detailed a distinction is made between legally prescribed and voluntarily performed tasks (Österreichischer Städtebund, n.d.-b). Legally defined tasks which are specified by the federal or state government, include the following tasks:

- Management of municipal finances
- Fire protection and rescue services
- Road construction and maintenance of municipal roads
- Maintenance of schools

Voluntary tasks of a municipality, on the other hand, include the following topics, which can be added individually by a municipality:

- Establishment of community monitoring
- Construction of a public water supply
- Construction of municipal housing (*Gemeinde*, n.d.)

Furthermore, municipalities serve as an important instance for basic social and health services. Municipalities thus count as implementation-oriented administrative units in the areas of administration, social services and health (Gemeinden in Österreich - Informationen Zum Österreichischen Gemeindewesen Und Deren Gesundheitsdienstleister, n.d.). The focus of municipalities' tasks is therefore not directly on governmental activities, but rather on providing services to citizens, which is the reason why the municipality has developed as a certain service community (Österreichischer Städtebund, n.d.-a). For the efficient execution of important tasks it is also possible for municipalities to voluntarily join to form a municipal association. This is often used in the areas of education, municipal waste management and social welfare (Gemeinde, n.d.).

2.3.2 Relevance of Digital Literacy and Social Integration for a Municipality

The demographic change in general, and with a particular focus on the municipal level, represents a challenge that needs to be considered. Between municipalities there is no homogeneity in the age structure. Nevertheless, it can be stated that the demographic change tends to result that there are more older people who live in a municipality. The ability of these people living a self-determined, socially integrated and healthy life is of high relevance for an individual itself as well as for the senior- and health policy of a municipality (Altgeld, 2009, p. 149).

In response to the demographic change and its consequences, Austria and its regional representatives were called upon to promote active aging at the municipal level in 2012, which was announced as the European Year for Active Aging and Solidarity between Generations. Among other relevant areas, the focus is on reorienting participation for the elderly population (Aigner, n.d.). This includes social tasks such as general work with senior citizens and social integration in the sense of increasing participation in social life (Österreichischer Städtebund, n.d.b). Municipalities are also important players regarding digitization and, more specifically, the development of digital offerings as well as services for older people. Accordingly, the commission recommends that the development of municipal, regional, and cross-regional digitization strategies have to be driven forward (Berner et al., 2020, p. 46). The establishment of offerings for the development of digital literacy among older people should be considered as a part of the municipal provision of public services. However, this can only take place based on state and federal policy support in the form of financial security, binding guidelines and legal adjustments (Berner et al., 2020, p. 37). The increase of digital literacy regarding social integration is thus highly relevant for municipalities and confirms the importance of this master thesis.

3 Methodology

The following chapters (chapters 3.1 to 3.3) deal with the methodological approach of the empirical part of the master thesis.

For this, chapter 3.1 shows as a first step the underlying study design. Subsequently, the execution of the research on initiatives (chapter 3.2) and the expert interviews (chapter 3.3), consisting of the sampling as well as data collection (chapter 3.3.1) and the respective data analysis (chapter 3.3.2) are presented.

3.1 Study Design

In empirical social research a fundamental distinction is made between quantitative and qualitative data collection. In this master thesis a qualitative research design was chosen, which can be roughly divided into four sections, which are shown in figure 6.

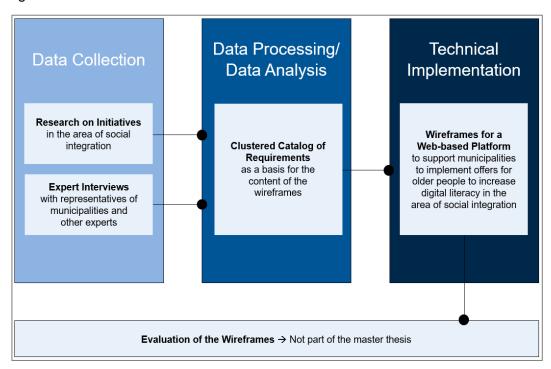


Figure 6: Study Design

The first part of the data collection was to conduct a research on initiatives in the area of social integration. This research is intended to identify the status quo of

municipal initiatives and projects which promote digital literacy for older people and to examine their different approaches. In the next step, four expert interviews with representatives of municipalities and other experts in the field of increasing digital literacy of older people took place to gain new data on the needs, motivation, experiences, and challenges.

In the following part, the data processing or data analysis, the information collected from the initiative research as well as expert interviews were combined to create a clustered catalog of requirements.

Looking at the technical implementation of the master thesis the catalog of requirements built in the previous step forms the base to create wireframes for a web-based platform for municipalities in Lower Austria to provide needs-based support to the staff for implementing offers for older people to increase their digital literacies of social integration, which is the aim of the master thesis.

The last step would be the evaluation of the technical implementation, which is not included in this master thesis.

3.2 Research on Initiatives to increase Digital Literacy regarding Social Integration

For answering the first research question, What approaches to increase digital literacy in the area of social integration already exist at the municipal level that meet the individual needs of older people?, researches on initiatives were carried out. Those are intended to identify the status quo of municipal initiatives and projects which promote digital literacy for older people and to examine their different approaches. The general procedure as well as the relevant documents used in the whole process of the research on initiatives can be seen in figure 7 and are explained in more detail afterwards.

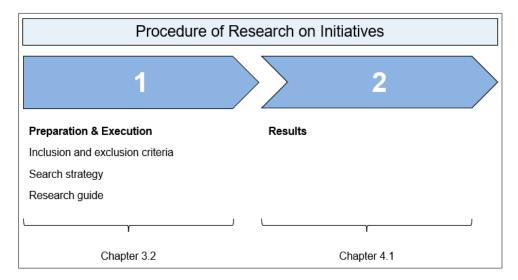


Figure 7: Procedure of Research on Initiatives

Since the research on initiatives was not primarily a search for scientific literature, but rather the search for real projects as well as initiatives, the research on initiatives was conducted using common search engines, such as Google. The use of search engines can be a useful tool since authorities, associations, foundations, educational institutions and others are located and presented there (Mehling, n.d., p. 132).

For selecting the initiatives, they were chosen by the following inclusion criteria. A possible initiative must be:

- an initiative or project in the German-speaking area
- and an initiative or project at the municipal level
- and an initiative or project focusing on digital literacy regarding social integration.

In addition to the previously defined inclusion criteria there were no explicit exclusion criteria to consider. The focus of the research was limited to German-speaking initiatives or projects, since the master thesis and its technical part aims to support municipalities in Lower Austria. Since it can be assumed that Germany and Austria have similar frameworks as well as legal conditions and can thus be compared with each other, the inclusion criteria of German-speaking initiatives or projects were chosen. The other two inclusion criteria were chosen because of their important reference to the topic of the master thesis.

After consideration of the inclusion as well as exclusion criteria, initiatives and projects were searched via the following search engines and search terms shown in table 3.

Table 3: Search engines, Terms, and Results

Search term* *The search terms were entered in German, for the thesis now translated into English	Found initiatives and projects	
google.at and google.de		
Increasing digital literacy in Austria	fit4internet	
Increasing digital literacy in Germany	no hit	
Initiative OR project AND increasing digital literacy	no hit	
Project OR initiative AND increasing digital literacy AND older people	no hit	
Digital literacy AND seniors OR older people	no hit	
Digital literacy of technology- inexperienced seniors	KommmiT	
Internet in age AND initiative OR project	DigitalPakt Alter → Digital Kompass	
Digital aging AND project OR initiative	Digital, gesund altern	

As table 3 shows, eight search terms were used in total, with which four initiatives and projects were found, that meet the inclusion as well as exclusion criteria as far as possible. Since two of the initiatives or projects come from Austria and two from Germany the first inclusion criteria, that German-speaking initiatives or projects should be analyzed, is fulfilled. The second inclusion criteria is met by only one of the initiatives, *Digital, gesund altern*. Although if the other initiatives or projects do not relate to the municipality level they were included in the research because no other initiatives or projects were found that would have met this inclusion criteria. Nevertheless, these initiatives and projects can also be applied at the municipality

level and provide important information for the development of the web-based platform. The third inclusion criteria is also covered, as all initiatives or projects are concerned with increasing digital literacy of older people, which has a direct or indirect impact on social integration. The following table shows in addition a detailed overview of the found and analyzed initiatives, their location, cooperation, duration as well as what they address in detail.

Table 4: Overview of analyzed Initiatives and additional Information

fit4internet: Generation 60+			
Location	All states in Austria		
Cooperation	In cooperation with the Federal Ministry for Digitization and Business Location as well as the Austrian Senior Citizen Council Cooperation with companies, institutions, and organizations		
Duration	2018 - now		
Content	Fit4internet is about developing digital (basic) skills through training with peers to take advantage of the digital age in terms of social participation (fit4internet, n.d.).		
	KommmiT		
Location	Germany/Stuttgart		
Cooperation	Funded by the Federal Ministry of Education and Research (BMBF) In cooperation with nine project partners from science, industry, elderly care, and public administration		
Duration	2015 - 2020		
Content	Development of measures that specifically enable digital access for people who are not familiar with technology and thus strengthen networking in the neighborhood as		

	well as social participation (Die Medienanstalt für Baden- Württemberg, n.d.).	
Digital, gesund altern		
Location	Lower Austria (14 municipalities in the Waldviertler Kernland)	
Cooperation	In cooperation with the Waldviertler Kernland, Danube University Krems, Treffpunkt Bibliothek Niederösterreich, Nö.Regional.GmbH and Fonds Gesundes Österreich	
Duration	2019 – 2021 (with the funding of <i>Fonds Gesundes</i> Österreich) 2021 - now	
Content	The project aims to achieve a healthier life for older people through the use of digital offerings, including an online game designed for this purpose, and to strengthen social participation (Waldviertler Kernland, n.d.).	
	Digital Kompass	
Location	Germany	
Cooperation	Project of the Federal Association of Senior Citizens' Organizations (BAGSO) and Deutschland sicher im Netz e.V. In cooperation with the Consumer Initiative with funding from the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection and Die Verbraucher Initiative	
Duration	n.a now	
Content	The initiative helps older people without Internet access to try out digital offerings, thus learning the skills they need and reaping the benefits (Digital Kompass, n.d.).	

The research on initiatives was conducted using a research guide developed by the results of the literature research. The template of the research guide (Appendix A) can be found in the appendix of this master thesis and includes the following questions:

- Which digital literacy sub-disciplines are focused on?
- What type of knowledge transfer is used?
- Are there people who are relevant for the knowledge transfer and if so, which ones and what are their tasks?
- What material resources are needed within the initiative/project?
- Are learning documents and materials provided?

The questions were applied to the respective project or initiative websites and the research guide was filled out separately for each initiative or project. The individual research guides can be found in the appendix (Appendix B, C, D, E).

3.3 Expert Interviews with Representatives of Municipalities and other Experts

Looking at the second research question of the master thesis, *How can municipalities be supported to be able to provide needs-based learning and support possibilities for digital literacy for older people?*, it is relevant to understand the target group of municipalities and their needs, motivation, experiences as well as challenges as a first step. In addition, the opinions and experiences of other experts, such as representatives of initiatives, are an important, complementary variable. To do so, two interviews with representatives of municipalities and two interviews with other experts, more specific with one representative of an initiative in Lower Austria and one expert in the field of gerontology took place. The general procedure as well as the relevant documents used in the whole process of the expert interviews can be seen in figure 8 and are explained in more detail in the following chapters (chapters 3.3.1 to 3.3.2).

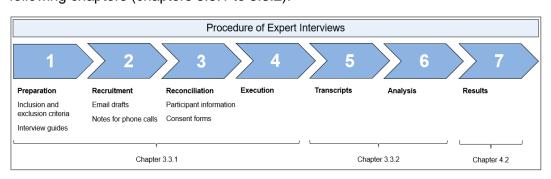


Figure 8: Procedure of Expert Interviews

3.3.1 Sampling and Data Collection for the Expert Interviews

Qualitative studies, such as qualitative expert interviews, are conducted and compared to quantitative studies, with a small number of cases. Accordingly, the selection of experts (*sampling*) is important, that statements can be generalized (Decker, 2018, p. 210). For selecting the experts for the interviews, representatives were chosen by the following inclusion criteria. A possible expert must be:

- a representative from a municipality in Lower Austria
- or a representative from an initiative in Lower Austria
- or an expert in the field of gerontology and/or working with municipalities.

In addition to the previous defined inclusion criteria there were no explicit exclusion criteria to consider. Due to the small number of inclusion as well as exclusion criteria a wide diversity of experts was reached, which can cover the different perspectives of the primary target group, the municipalities as well as the indirect target group, the older people.

After consideration of the inclusion and exclusion criteria experts were recruited via the recruitment process shown in table 5. The corresponding documents used in the entire recruitment process such as the email draft for the first contact (Appendix F), notes for the first contact by phone call (Appendix G) as well as the participant information and consent form (Appendix H) can be found in the appendix.

Table 5: Recruitment process for Expert Interviews

Expert	Recruitment process	Consent	
Represent	Representatives from municipalities in Lower Austria		
Representative from a municipality 1	 Contact by fellow student First contact by phone call Second contact by email with appointment selection Third contact by email with appointment confirmation, zoom link, participant information and consent form 	√	

Representative from a municipality 2 Representative from a municipality 3	 Contact by fellow student First contact by email Second contact by email with appointment confirmation, zoom link, participant information and consent form Contact by internet research First contact by email Second contact by phone call Contact by internet research 	×
Representative from a municipality 4	Contact by internet researchFirst contact by emailSecond contact by phone call	×
Represe	entatives from initiatives in Lower	Austria
Representative from an initiative 1	 Contact by Petra Plunger (supervisor master thesis) First contact by email Second contact by email with appointment selection Third contact by email with appointment confirmation, zoom link, participant information and consent form 	✓
Representative from an initiative 2	Contact by internet researchFirst contact by emailSecond contact by phone call	×
Experts in the field of gerontology and/or working with municipalities		
Expert in the field of gerontology 1	 Contact by representative from a municipality 1 (snowball approach) First contact by phone call Second contact by email with appointment confirmation, zoom link, participant information and consent form 	✓

As shown in table 5 seven possible interview partners were contacted, of which four gave their consent to be interviewed. The expert interviews thus cover two interviews with representatives from municipalities, one interview with a representative from an initiative and one interview with an expert in the field of gerontology. In general, the first contact, by email or phone call, took place to inform them about the aim of the interview. Once the contacted person has consented to be interviewed a participant information sheet for a more detailed explanation was provided, explaining the process, purpose, benefits, and data processing. Because the interviews took place online via zoom, a consent form, including the allowance of recording the interview, was provided.

Table 6 shows a detailed overview of the interviewed experts, their function and, if it is a representative of a municipality, the area and municipality size.

Table 6: Overview of interviewed Experts and additional Information

Expert	Function of the expert	Area, Municipality size
Representative from a municipality 1	Administration	Rural, Small
Representative from a municipality 2	Political	Urban, Large
Representative from an initiative 1	(Project) Manager of an initiative	n.a.
Expert in the field of gerontology 1	Care expert	n.a.

The table shows that the experts were very different in their point of view. For example, although there were two interviews with representatives of municipalities, they represented different functions as well as municipality sizes which can expect different statements.

The expert interviews were conducted using a qualitative guideline based on the results of the literature research as well as research on initiatives. Since the interview partners are three diverse target groups, three different interview guides were created. All interview guides can be found in the appendix of this master thesis (Appendix I, J and K). The interviews, which were planned to last 30 minutes, were oriented by the following structure:

- Introduction and overview of the interview as well as the master thesis
- Definition of the term digital literacy
- Short introductory question
- Thematic in-depth questions
- Closing part

In general, all expert interviews aimed with their individual questions to answer the question *How can municipalities be supported to be able to provide needs-based learning and support possibilities for digital literacy for older people?* (research question 2). The expert interviews with representatives of municipalities therefore firstly dealt with the needs, motivation, experiences, and challenges with the perspective of the target group of the question and platform itself. The representative of an initiative, that collaborates closely with municipalities, has complemented these answers from another perspective. The last interview, carried out with an expert in the field of gerontology, included the point of view of the secondary, indirect target group, the older population. Their needs as well as requirements should be the basis of all considerations and therefore represent important supplementary information.

3.3.2 Data Analysis of the Expert Interviews

To analyze the qualitative data from the expert interviews a thematic analysis is conducted, which is illustrated in figure 9.

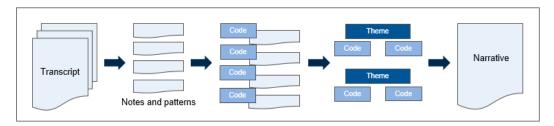


Figure 9: Thematic Analysis in general

Thematic analysis is a process of data analysis that involves combing through a data set, such as transcripts, taking notes and identifying patterns, coding systematically, deriving themes as well as creating a narrative.

For the expert interviews of this master thesis the thematic analysis of Braun and Clarke (2006) was chosen. This is a data analysis method which is used for qualitative research that can serve as an adaptable and useful tool for the qualitative analysis of complex and detailed data. According to Braun and Clarke

the analysis of the data collected in the expert interviews should follow six phases which are shown and related to the general thematic analysis in figure 10.

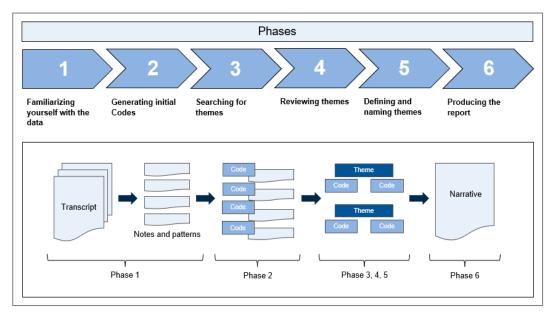


Figure 10: Thematic Analysis of Braun and Clarke (2006)

The six phases do not necessarily have to be worked through in order but are followed in this thesis. The individual phases are now described in general as well as in relation to the expert interviews of the master thesis.

In the first phase, called *Familiarizing yourself with the data*, audio recordings should be transcribed and during a repeated read-through initial ideas as well as patterns should be noted. For the expert interviews the first familiarization with the data was made through self-performed transcription. The transcripts can be found in the additionally delivered material. Subsequently, the contents were deepened by repeated, active reading of the data. Using the comment function of Word, both the questions from the guideline as well as the corresponding answers were summarized to highlight the relevant statements of the master thesis. In addition, it became apparent when the guideline was deviated from and other questions were asked. Further relevant statements were highlighted with the comment function under the label *Other*. The inserted comments represent the first notes and ideas for the coding. However, no codes or topics were noted in this phase.

The second phase *Generating initial codes* is the initial coding of systematically interesting as well as relevant features in the complete data set and previously identified ideas and patterns. Furthermore, the relevant data should be assigned to the codes. Data representing the same topic should be assigned to the same codes. After became familiar with the data of the expert interviews in phase one,

the transcripts were read through again. In table *Phase 2: Generating initial codes*, which can be found in the appendix (Appendix L), each relevant transcript line was recorded in the column *Data Base* and a corresponding code was noted in the column *Codes* which summarizes the central statement. For expert interview one, 37 codes were identified in total. For expert interview two it was 30 codes, for expert interview three 22 codes and for expert interview four 34 codes.

In Searching for themes, the third phase, codes should be united to potential themes and the corresponding data material should be assigned to them. A hierarchy (sub-themes) and links should be created. After the codes were identified in the second phase, they were read through again. Subsequently, thematically similar codes were clustered and written down in the table *Phase 3: Searching for themes*, which can be also found in the appendix (Appendix M). For the clustered codes a theme representative for the codes was formulated (column *Themes*). The specific themes that were identified are listed and described in more detail in the results chapter (chapter 4.2).

The following phase, *Reviewing themes* is dealing with the reviewing and revising of the themes, to see whether they fit without contradiction to the extracted, coded passages and the entire data material. A thematic map of the entire analysis should be created. For the review and revision of the identified themes they were first read again and finalized with minor changes in the wording. The topics were visualized in a thematic map afterwards, which is shown in figure 11, presented in the results chapter (chapter 4.2).

In the next phase, *Defining and naming themes,* themes should be refined and enriched with further details and specifications. Conclusions about the statement of the whole analysis should be made as well as clear definitions and the title for each theme should be formulated. This step and its results, with special focus on the distinct definitions of the themes, are placed in chapter 4.2.

The last phase is named *Producing the report*, in which meaningful examples of each theme should be selected. A final analysis of the selected passages should be made. In addition, it is about a reference to the research question and literature and the preparation of the final text. This step can also be found in the following chapter 4.2, the results of the expert interviews (Braun & Clarke, 2006, pp. 16–23).

4 Results

After the previous methodology chapter (chapter 3) dealt with the approach of the empirical part, the following chapters (chapters 4.1 to 4.3) present the results according to this. More precisely, chapter 4.1 shows the results of the research on initiatives and chapter 4.2 the results of the expert interviews, before they are combined in chapter 4.3 in a so-called clustered catalog of requirements.

4.1 Results of the Research on Initiatives

In order to present the results of the research on initiatives in a structured way the guiding questions from the research guide (seen in chapter 3.2) were converted into so-called themes. This made it easier to compare them with the themes formed in the expert interviews using qualitative content analysis and to identify commonalities. The following list shows the themes that were formed:

- Digital literacy sub-disciplines focused
- · The way in which content is communicated
- Personnel resources
- Framework conditions to be observed
- Materials

In general, it can be said that the content of all themes considering the individual initiatives and projects are very similar and include only minor differences. In addition, they confirm the general information presented in the theoretical and conceptual background.

The digital literacy sub-disciplines focused on each of the initiatives and projects are the computer, media, and communication literacy. Only the initiative Digitaler Kompass includes social media literacy in addition. Since the initiatives or projects are those that focus on increasing digital literacy in the area of social integration, this was to be expected, since these four digital literacy sub-disciplines are precisely those that are necessary regarding social integration (see chapter 2.2.2).

Regarding the theme the way in which content is communicated it can be said that here the initiatives and projects use different types of knowledge transfer. Nevertheless, there are some similarities. The initiatives *Fit4internet* and *Digital, gesund altern* use for example an in-person consultation with trainers and peers.

At *KommmiT* an in-person consultation is offered, too, but only with trainers no peers. The initiative *Digitaler Kompass* is provided the consultation for digital themes with trainers as well as peers online and in person. In addition, the initiatives and projects focus on different trainings and courses. At *Fit4internet* the courses are held in person and with professional as well as educated trainers. At *KommmiT* as well as *Digitaler Kompass* older persons can execute online self-trainings. *Digital, gesund altern* focuses the training of digital literacy in form of a gaming app developed with older people with which they can apply what they already know and have learned within the in-person consultations. These results, with a particular focus on the in-person consultation, also reflect the needs of older people in terms of acquiring digital literacy outlined in chapter 2.2.3.

For each initiative and project analyzed, human resources are needed to primarily elaborate and carry out the offers, especially in terms of consultations, courses, and trainings. At *fit4internet* professional trainers are used for the execution and content preparation of the courses as well as to train volunteers, who can hold courses afterwards as well. This is similar to *KommmiT* where the consultations are also held with voluntary caregivers. The difference here is that professional experts are only needed for the content preparation of the online trainings with which the voluntary caregivers are educated and older people are taught. At *Digital, gesund altern* the professional trainers have also only the role of educating voluntary advisors. In this initiative the education takes place in person. The voluntary advisors then execute the consultations. *Digital Kompass* does not include any voluntary advisors. The content preparation as well as execution is given by professional trainers.

Since each of the initiatives and projects provides in-person services the framework conditions to be considered refer to the necessary locations where trainings and consultation can be held. Only at Digital, gesund altern it can be raised that the locations are provided by the municipality and educational institutions, such as libraries. For the other initiatives and projects no information can be collected concerning this point. In addition to the locations, it is necessary in general to own a mobile phone or a computer, so that the offers of all initiatives and projects can have an effect. The technical equipment is usually not provided by the initiatives and projects but used from private property. Only at KommmiT tablets are handed out.

The theme *Material* focuses on if there are any learning documents and materials provided at the initiatives and projects. The research shows that every initiative that offers online or in-person training and courses also provides the associated materials. Accordingly, the initiative *Digital*, *gesund altern* provides no documents

since they train the older people via their application. The materials are made available on the websites in various ways, such as documents, videos, and recordings.

4.2 Results of the Expert Interviews

For the investigation results of the expert interviews, the individual themes are now named first as well as illustrated in a thematic map. Afterwards, the themes are defined in chapter 4.2.1 as well as supplemented with significant examples and statements from the different experts, which are useful for the further development of wireframes for a web-based platform. Chapter 4.2.2 summarizes the main statements by giving a short resumé.

With the qualitative analysis, a total of ten themes were identified, that find reference in the expert interviews:

- Raising awareness of the issue of "increasing digital literacy"
- Increasing motivation to become active in the topic of "increasing digital literacy"
- Digital literacy among older people
- Relevance of a needs query
- · Framework conditions to be observed
- Important topics/ideas to be addressed
- The way in which content is communicated
- Tasks and support function of a municipality
- Tasks and support function of other parties
- Personnel resources for the implementation of support services

The topics can be visualized in a thematic map, which is shown in the following figure 11. In this map additional super-topics and interrelationships are shown.

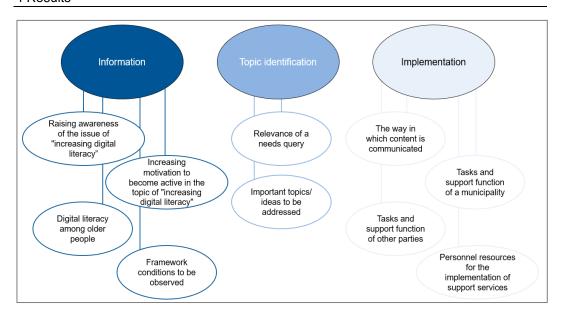


Figure 11: Thematic map of the identified Themes

In general, the thematic map consists of three super-topics, called *information*, topic identification and *implementation*, under which the individual identified topics can be found.

4.2.1 Main Statements of the Expert Interviews

The theme raising awareness of the issue of "increasing digital literacy", which is part of the super-topic information, is relevant in each of the expert interviews and includes as a central, fundamental aspect, statements as well as information on the need to raise awareness among municipalities on the issue of increasing digital literacy among older people. In the first interview with the municipal representative of a rural municipality it became clear that the topic of digital literacy as well as the target group of older people and their needs are important topics. However, according to the statement, with these are not dealt enough. The representative from a municipality with a political role underpinned the relevance of digital literacy and thus the statement of the municipality representative with an administrative role with the advantages of digital literacy for social integration within a municipality. Nevertheless, according to this representative, too less support is offered to older people for the development of digital literacy. In comparison, the interview with the expert in the field of gerontology only discussed the benefits of digital literacy for older persons. For example, video communication is a great opportunity for older people to get in touch with each other. Comparable statements with those of the representatives of municipalities about how to deal with the topic and support offers were not made. The expert interview with the

representative of an initiative revealed another aspect not addressed by the other experts. According to this expert digitization is a difficult, sensitive topic. Nevertheless, support offers for the development of digital literacy are desired by older persons. However, according to the representative of the initiative, municipalities are not aware of this.

Another theme in the super-topic information is increasing motivation to become active in the topic of "increasing digital literacy" and now do not only focus on making municipalities aware of the topic but also motivating them to do something related to this field. Regarding this topic the statements of the municipal representatives and the other experts tend to differ, even within the same representatives. For example, according to the municipal representative of a rural municipality, the topic of increasing digital literacy is an additional task for a municipality. This is the reason why it is important to show them the benefits of this additional task and thus of the support offered in the form of a web-based platform. On the other hand, the municipal representative in the urban area emphasized that the topic is not a task of a municipality at all, which is the reason why a support platform is not primarily useful either. Nevertheless, both statements suggest that an increase in motivation is necessary. The expert interview with the representative of an initiative confirmed the statement that increasing digital literacy is not a primary task of municipalities. In addition, the interview emphasized that they are generally not burdened and that the building up literacy and the time required should not be too great. Nevertheless, according to the expert, municipalities are open and motivated to the topic, provided that an actively presented offer and tasks are described. In the interview with the expert in the field of gerontology the advantages are listed if municipalities become active in the topic. They can gain for example a locational advantage and avoid the migration of citizens to the cities. These advantages can be further interpreted as a motivating factor.

In addition, the *digital literacy among older people* were named by three experts and therefore combined into a theme of the same name. The content of this theme is more precisely to make the state of digital literacy among older people transparent. According to the two interviewed representatives of municipalities and the expert in the field of gerontology it is generally important to look at older people as individuals, also regarding digital literacy, and not making generalized statements. However, the municipality representative from a rural municipality made the statement that older people tend to have insufficient digital literacy and opportunities to acquire them. The municipality representative from an urban municipality clarified that the digital literacy of (working) older persons in urban areas are not that bad and that the challenge consists more in rural areas.

In the theme framework conditions to be observed general framework conditions for the implementation of offers were named. This theme contains various statements from the experts that cannot be harmonized very well. The first interview with a representative of a rural municipality showed that time management and task structuring are relevant for facilitating the introduction and implementation of support services in general and thus also for municipalities. Furthermore, good networking within the municipality can be an advantage for the implementation. Regarding the effectiveness of offerings the expert referred to the fact that owning or making digital devices available is relevant. The interviews with the representative from a municipality in the urban area as well as the one with the expert in the field of gerontology, on the other hand, contained more general statements about the challenge of IT security and technical barriers as well as accessibility regarding this theme which are less relevant to the aim of the master thesis. The representative of an initiative focused that it can be helpful for municipalities to provide support in assembling a project team in communication and in steering the project.

The super-topic *topic identification* consists of two themes. The first theme, called *relevance of a needs query*, is confirmed by the statements of all experts, except for the political representative from a municipality. It was addressed that a needs query of the target group within a municipality is an important first step for a project in order to get an idea of needs and wishes older people have. The interview with the representative of an initiative complemented this with the point that it is also important to look at current trends and developments in society. The political representative of the urban municipality merely mentioned that the status of digital literacy of older people and their needs are not queried by municipalities.

The second theme within this super-topic is the theme named *important topics, ideas to be addressed*. Many statements and ideas for the web-based platform were voiced during the expert interviews and are addressed in this theme. Due to the diverse statements, connections of the expert interviews regarding this theme can only be made to a limited extent. The municipality representative with an administrative role mentioned, related to older people as the focused target group, that it is important to address the fear or inhibition threshold of technology and digitization first. Regarding municipalities the expert mentioned the idea of establishing a *search - find approach* that makes it easier to offer and search for both human and material resources. Instead, the representative of the municipality with a political function proposed to show the municipalities what initiatives already exist on this issue. The expert in the field of gerontology said that on one hand the benefits of digital literacy should be shown for older people. On the other hand the way to deal with older people should be shown to municipalities. The initiatives

expert added the issue what kind of marketing for municipalities is the right one to become aware of a web-based platform.

The last super-topic deals with the theme focused on *the way in which content is communicated*. Although this topic was only addressed by the two experts who are not representatives of municipalities it is important additional content for the webbased platform. The statements of the two experts were based on different points. For example, the expert in the field of gerontology was focused primarily on soft skills while dealing with older people. More specifically, the empathy with which people should be approached who for example have not had any contact with digitization yet. The wording and terminology are also important aspects to consider. The representative of the initiatives focused on the method of communication. For this, it makes sense to use the communication channels of a municipality.

The next two themes deal with the tasks and support function of a municipality first and of other parties later. These are specific tasks for municipalities in general and for implementing projects or initiatives. Even though it is clear from previous statements that digitization and thus the development of digital literacy is not primarily one of the tasks of a municipality, the experts talked about the ways in which municipalities can become active anyway. The representative of an initiative divided the tasks of municipalities regarding the development of digital literacy into three roles, which were also confirmed partly by the other experts. The first role is the one of an enabler. Therefore, the municipalities provide financial and material resources depending on their capacity. All other experts mentioned this role, too, even though mainly in relation to the financial aspect. The second role of the municipalities is the one of multipliers. They communicate and present certain offers to the outside world and are thus certain door openers. This role is also addressed with the municipal representative who holds a political function in the expert interview. The third role of the municipalities focuses on marketing. This includes for example the provision of marketing tools by the municipalities. The municipal expert from the rural area supported this statement by saying that the municipality is responsible for creating the marketing measures. The other two experts did not address this task. However, the representative of the rural municipality mentioned other, smaller tasks. One example is that the municipality can assume a coordinating and organizational function in projects or initiatives.

The theme *tasks* and *support* function of other parties also contains the concrete tasks that were taken over, but with the focus on other parties. All experts, except for the expert in the field of gerontology, made statements regarding this, even with different content. Thus, according to the municipal expert in the rural area, the

biggest task is that other parties support municipalities in terms of content. The provision of equipment such as computers can also be taken over by other parties if the municipalities themselves cannot provide enough equipment. The representative of the municipalities who represents the political point of view noted that other parties, such as associations or the Chamber of Commerce, often provide the whole support. The representative of the initiatives placed educational institutions as the center of content creation as well as overall organization and implementation.

The last theme, personnel resources for the implementation of support services, refers to whether contact persons or other persons are needed during the implementation of support services. Only the two representatives of the municipalities made statements about this. Both mentioned that a contact or support person is relevant for older people. The representative in the administrative role related this to general work with older people while the representative in the political role gave the specific example of dealing with websites.

4.2.2 Resumé of the Main Statements of the Expert Interviews

To give a short resumé of the main statements of the expert interviews it can be said that the experts' statements generally show similar perspectives concerning the topic of increasing digital literacy of older people but also differences. However, the differences are often built on each other and can therefore be easily linked together and are usually less contradictory.

It is especially notable that the focus and opinions on certain topics are differentiated, especially among the representatives of municipalities. This may be explained by the fact that both experts represent municipalities but within different roles. In addition, the municipality areas are not homogeneous. Even if the same or thematically similar questions were asked in the interviews it was expected that the answers will be very diverse. It can be seen that answers to questions which were asked in a more general way, like those about the subject area of digital literacy and the target group of older people, tend to have more in common. The potential roles and tasks of a municipality in this field are also described similarly. Within the more detailed explanations, such as the framework conditions to be observed or the topics and ideas to be addressed, there are greater differences.

4.3 Clustered Catalog of Requirements

For the data processing the results from the research on initiatives and the data of the expert interviews form the clustered catalog of requirements in order to develop the wireframes for the web-based platform. This includes the five identified themes from the research on initiatives as well as the ten themes from the expert interviews. Since the themes of both methodological parts partially overlap, the themes were combined in the catalog of requirements. Regarding the themes only the relevant points for the web-based platform was considered in the catalog of requirements. The catalog shows three different implementation types: *information for preparation, filter attributes for service data base* and *information for execution*. Table 7 represents the clustered catalog of requirements.

Table 7: Clustered Catalog of Requirements

Raising awareness of the issue of "increasing digital literacy"		
Content	Implementation type	
Issue of increasing digital literacy	Information for preparation Explain to municipalities in a text-based way, what is meant by digital literacy and why increasing it is important.	
Issue of the target group older people and their needs	Information for preparation Explain to municipalities in a text-based way, how the target group of older people relates to digital literacy and what their needs are.	
Increasing motivation to become active in the topic of "increasing digital literacy"		
Content	Implementation type	
Advantages of increasing digital literacy (of older people) for the municipality	Information for preparation Explain to municipalities in a text-based way the benefits of increasing digital literacy for older individuals and municipalities.	

Framework conditions to be observed			
Content	Implementation type		
Technical equipment needed	Filter attributes for service data base Selection of Technical equipment needed Technical equipment not needed		
Information about project management:	Information for execution Explain to municipalities in a text-based way, how successful project management works. Reference to external training offers.		
Digital lite	Digital literacy among older people		
Content	Implementation type		
State of digital literacy among older people	Information for preparation Show to municipalities in a text-based way the current status of digital literacy among older people.		
	Materials		
Content	Implementation type		
Forms of material:	Information for execution		
DocumentsVideosRecordings	Explain to municipalities, depending on the type of knowledge transfer, whether and which materials should be used.		
Relevance of a needs query			
Content	Implementation type		
Needs query of the target group older people (needs, wishes)	Information for preparation Provide municipalities a predesigned survey, if they cannot evaluate which type of knowledge transfer is the right one for the target group.		

Digital literacy sub-disciplines focused		
Content	Implementation type	
Computer, media, communication, and social media literacy	Information for preparation	
	Explain to municipalities in a text-based way, what types of digital literacy are important for social integration.	
Important to	opics/ideas to be addressed	
Content	Implementation type	
Issue of fear and inhibitions about technology and digitization	Information for execution	
	Provide municipalities sample introductions for the topic of increasing digital literacy when they carry out offerings themselves.	
	Information for execution	
Exemplary initiatives on the market	Show municipalities depending on the types of knowledge transfer analog example initiatives and projects on the market.	
The way in which content is communicated		
Content	Implementation type	
 Types of knowledge transfer: In-person consultation with trainers In-person consultation with trainers and peers Online consultation with trainers and peers In-person trainings and courses with trainers Online trainings and courses with trainers Online self-trainings 	 Filter attributes for service data base Selection of Professional trainers should be used Volunteers should be trained to become trainers Older persons should train themselves It should take place online It should take place in person Consultation Training/education	

Soft skills for dealing with older people: • Empathy • Wording and terminology Marketing tools suitable for the target group of older persons	Information for execution If municipalities carry out offers themselves, give information on how they deal with older people. Reference to external training. Information for execution Show to municipalities in a text-based way, how they can promote their learning offers to the target group.	
Tasks and support function of a municipality		
Content	Implementation type	
 Three roles of municipalities: Role of enabler Role of multiplier/promoter Coordinative and organizational function 	Filter attributes for service data base Selection of Municipality takes on role of enabler Municipality takes on role of implementer Municipality takes on role of multiplier/promoter	
Tasks and support function of other parties		
Content	Form of implementation	
Content preparator	Filter attributes for service data base Selection of Municipality takes over content preparation Other party takes over content preparation	
Provision of equipment	 Filter attributes for service data base Selection of Technical equipment provided by municipality Technical equipment provided by other parties Technical equipment provided by participants 	

4 Results

Personnel resources (for the implementation of support services)		
Content	Implementation type	
 Professional trainers for training volunteers Professional trainers for content preparation and executing trainings, etc. Volunteers 	Filter attributes for service data base Selection of Professional trainers should prepare content Professional trainers should execute learning offer Professional trainers should train volunteers	
Contact/supporting person for older people	Information for execution If municipalities carry out offers themselves, give information of the reason why providing a voluntary caregiver for older people could be useful and how to find them.	

5 Development of Wireframes for a Web-based Platform

After the previous chapters dealt with answering the research questions this chapter focuses on the technical implementation. The aim is to develop wireframes for a web-based platform that is intended to support municipal staff in implementing offers to increase digital literacy of older people. For this purpose, the following chapters define the procedure of creating the wireframes (chapter 5.1) as well as the developed wireframes themselves in detail (chapter 5.2).

5.1 Procedure of Creating the Wireframes

For creating the wireframes, the following steps, shown in figure 12, were performed.

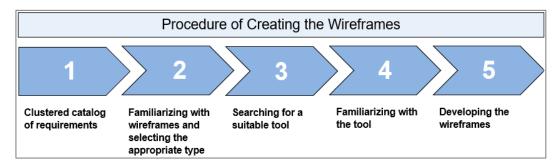


Figure 12: Procedure of Creating the Wireframes

The basic prerequisite and thus the first step of creating the wireframes was the clustered catalog of requirements (see chapter 4.3). This represents the basic content framework on which the wireframes were based on and created.

The next step was to get familiar with the construct wireframes itself and to decide which type of wireframe is suitable for the aim of the master thesis. Wireframes are two-dimensional basic frameworks of a website or app and focus on the original user experience design. In doing so, they provide a clear overview of the page structure, layout, information architecture, user flow, functionality, and intended behaviors. Compared to mock-ups the focus of wireframes is thus not on the design, such as color, typography, or images, but rather on what content is presented and how users interact with the website or app. In general, there are

three types of wireframes, *low-fidelity*, *mid-fidelity*, and *high-fidelity* wireframes, which differ in the amount of detail they contain. *Low-fidelity* wireframes are quite rough and do not consider for example scale, grid, or pixel accuracy. They only contain placeholders or block shapes and no detailed annotations. In comparison, *mid-fidelity* wireframes are more detailed. Within these for example the scale plays a role, functions are clearly distinguished from each other and different shades of gray are used. *High-fidelity* wireframes are the most precise type of wireframes. In this type necessary content elements such as images and text are represented and individual color accents are used (Jaye, 2021). Figure 13 illustrates a comparison of the three types of wireframes, starting with the low-fidelity one on the left, the mid-fidelity wireframe in the middle and the high-fidelity one on the right side.

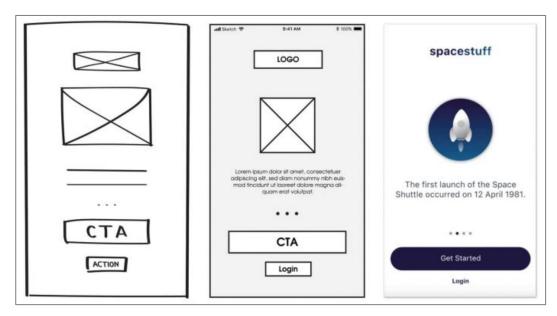


Figure 13: Types of Wireframes (Lazarova, 2018)

For the wireframes of the web-based platform the mid-fidelity type was chosen. With this type it is easier to understand how the final website would look like. In addition to the structure of the website shown within the wireframes the content collected in the theoretical and conceptual as well as methodological part is also included in the form of headings. This leads to a better understanding of the wireframes.

The third step was to look for a suitable tool with which the technical development could be implemented. The wireframes created in this master thesis were built with the tool Figma[®], one of many free online wireframing tools (*Wireframe Kits*, n.d.).

To get familiar with the tool Figma[®] (step four of the procedure of creating the wireframes) freely available tutorials were watched, which explain the basic functions of it. Since the tool is easy as well as self-explanatory in its use no further training was necessary.

The last step involves the development of the wireframes themselves. The final implementation is shown in chapter 5.2.

5.2 Implementation of the Wireframes using Figma®

In the following the implementation of the wireframes is shown. Since a website is to be developed that should be accessed only via desktop in a first step, the frame *Desktop* was selected in Figma[®]. Therefore the correct format (1440 x 1024 pixels) was used which shows how much space is available for structuring the content. In addition, the wireframes were developed in German because the website aims to support Austrian municipalities in implementing services for older people.

In total 23 wireframes were developed, which can be compared to the individual pages of the website. Figure 14 gives a visual overview of the different wireframes. Even though the content is not readable due to the size of the figure, it shows a good overview of the scope of the wireframes. The specific content can be then seen in the following chapters.

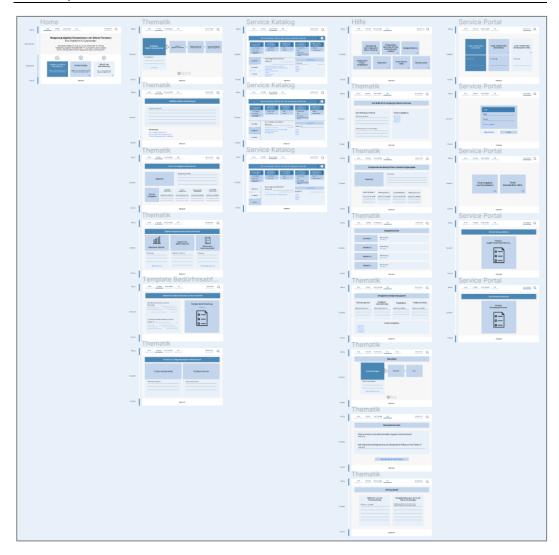


Figure 14: Visual overview of Wireframes

The wireframes are divided into the following five main topics, which are described in detail in the subsequent chapters (chapters 5.2.1 to 5.2.5):

- Home
- Thematik (eng. Topic)
- Service Katalog (eng. Service Catalog)
- Hilfe (eng. Help)
- Service Portal

Five sub-wireframes are directly related to *Thematik*, seven to *Hilfe* and four to *Service Portal*. In addition to the division into the various main topics and related sub-wireframes, so-called content blocks were created for each of the wireframes. These show the content to be placed on the website and thus on the wireframes

in predefined blocks. This ensures for example that the same space is always used for content like the menu or footer area. For a better understanding, figure 15 shows the previously defined main topics and an example of a content block.

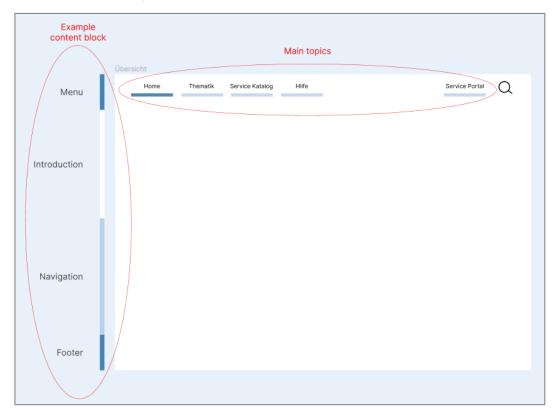


Figure 15: Main topics and example Content block

5.2.1 Implementation of the Wireframes for the page Home

The wireframe *Home* (figure 16) was built as a landing page in order to show the platform goals to the visitors at first. It also links to the content elements of the platform, which were created based on the results of the research on initiatives as well as on the expert interviews.

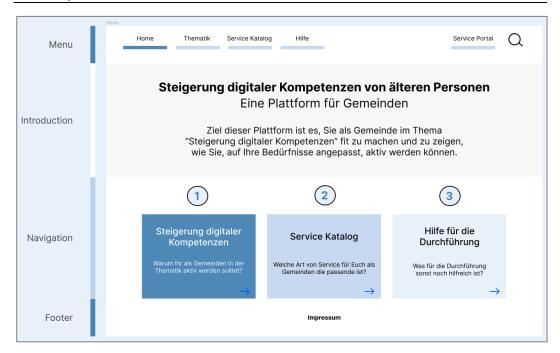


Figure 16: Wireframe Landing Page Home

The main pages of the website are listed in the content block *Menu* via tabs. In addition, a search function for screening the whole platform can be used via the loop on the right. The general aim of the platform is explained in a text-based way within the *Introduction* content block followed by the primarily relevant navigation points for the municipalities (content block *Navigation*). These consist of the three buttons *Steigerung digitaler Kompetenzen* (eng. *Increasing digital literacy*), *Service Katalog* (eng. *Service Catalog*) and *Hilfe für die Durchführung* (eng. *Help for implementation*). The *Impressum* (eng. *Imprint*) is displayed as the footer of all pages and thus wireframes.

5.2.2 Implementation of the Wireframes for the page *Theme*

As soon as the button *Steigerung digitaler Kompetenzen* which can be found on the page *Home* or the tab *Thematik* of the menu is used, the user will lead to the page *Thematik*, represented by the following wireframe (figure 17).

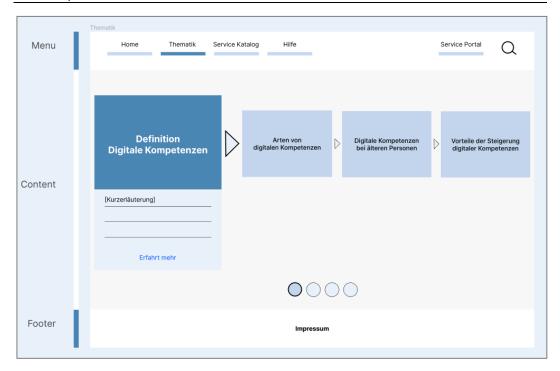


Figure 17: Wireframe Landing Page Topic

On this and on the pages based on it, the *information for preparation* analyzed from the research on initiatives as well as expert interviews and described in the clustered catalog of requirements are presented. More precisely, the page divides them into four super-categories via tiles. The user can click with the arrow through the tiles and gets a short description of the respective topic. By clicking on *Erfahrt mehr* (eng. *Learn more*), the user is linked to the next page where a more detailed description can be found.

The first super-category is called *Definition Digitale Kompetenzen* (eng. *Definition digital literacy*), represented by figure 18.

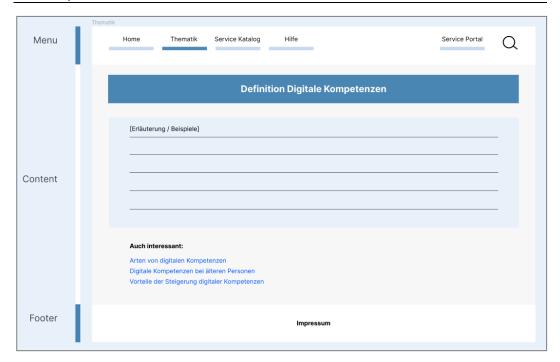


Figure 18: Wireframe Definition Digital Literacy

With the methodological analysis it was noted that it is necessary to explain to municipalities what is meant by digital literacy first. This leads to positively influence the municipalities' awareness of the topic and their motivation to become active. For this purpose, the definition is explained and illustrated with examples. The page also shows interesting links to other pages of the platform. These represent the tiles shown in the previous wireframe.

Another super-category shown on the landing page *Thematik* is *Arten von digitalen Kompetenzen* (eng. *Types of digital literacy*) (figure 19).

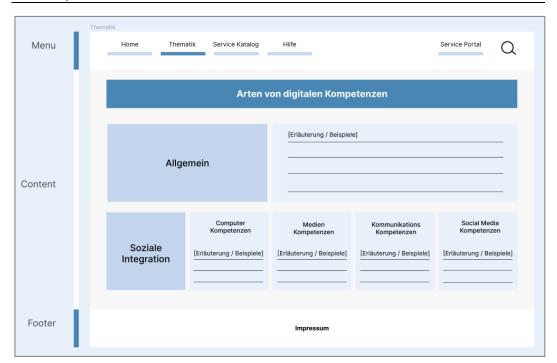


Figure 19: Wireframe Types of Digital Literacy

Regarding this, as shown in the clustered catalog of requirements, it was also determined that it is important to define the different types of digital literacy and which of them are important in the area of social integration. To do so, the page shows the general types of digital literacy under the heading *Allgemein* (eng. *General*) first. Below that, with the heading *Soziale Integration* (eng. *Social Integration*) the relevant competences for this are described. The four accompanying tiles thus explain computer-, media-, communication-, and social media literacy.

Digital literacy among older people is also covered on the landing page *Thematik* via an explanation and further elaborated on the following page (figure 20), since the expert interviews revealed that it is important to show municipalities the target group of older people and their reference, current status, and needs to digital literacy.

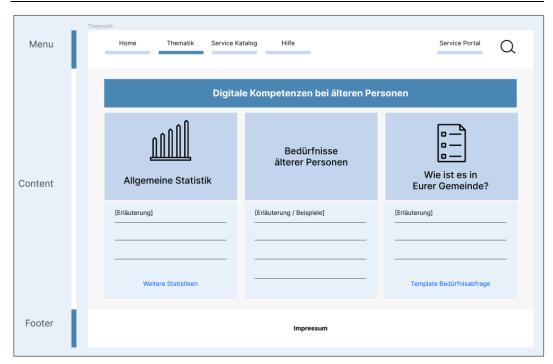


Figure 20: Wireframe Digital Literacy among Older People

For this purpose, the platform provides three tiles. The first one (*Allgemeine Statistik*, eng. *General Statistics*), publishes statistics that are used to explain the current status of older people and digital literacy. The link *Weitere Statistiken* (eng. *Further statistics*) takes the user to a statistics portal that can be used to find further statistics about this topic. The needs of older people are described by the tile *Bedürfnisse älterer Personen* (eng. *Needs of older people*) and supplemented with examples. Tile three (*Wie ist es in Eurer Gemeinde?*, eng. *What is it like in your municipality?*) explains that data of the needs of older people should be collected in one's own municipality and links to the following page (figure 21) via *Template Bedürfnisabfrage* (eng. *Template needs query*).

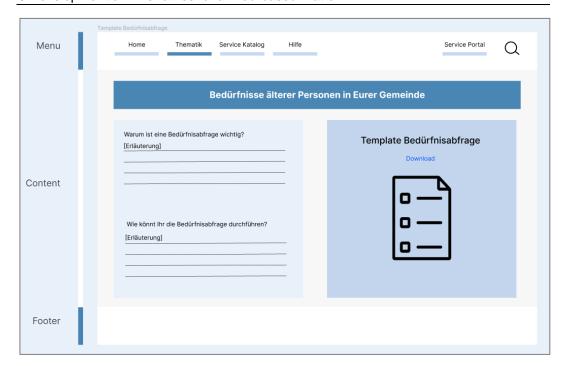


Figure 21: Wireframe Needs of Older People

The page Bedürfnisse älterer Personen in Eurer Gemeinde (eng. Needs of Older Persons in your municipality) was created because the methodological approach indicated that municipalities should be provided with a predesigned survey to understand the older people in their municipality better. Furthermore, it can be figured out which type of knowledge transfer is the right one for their target group. With the text field shown on the left side the questions why a needs query is important and how it can be conducted are addressed. On the right side of the page municipalities can find the pre-made template to download.

The last super-category on the landing page *Thematik* is *Vorteile der Steigerung digitaler Kompetenzen* (eng. *Benefits of increasing digital literacy*), presented in figure 22.

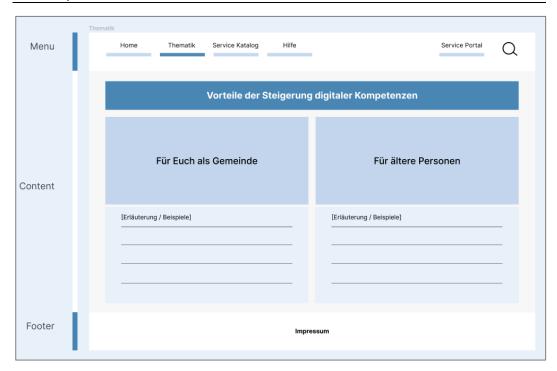


Figure 22: Wireframe Benefits of increasing Digital Literacy

In addition to the general definition the benefits of increasing digital literacy for municipalities (tile on the left) and for older people (tile on the right) are explained by using text and examples. The expert interviews showed that municipalities are not aware of getting active in the field of increasing digital literacy of older people, which is the reason why the relevance and benefits for municipalities and older people must be demonstrated.

5.2.3 Implementation of the Wireframes for the page Service Catalog

Another button, which can be found on the page *Home* is called *Service Katalog* (eng. *Service Catalog*). There is a tab of the same name in the menu on top which links to the following page, represented by different cases, as seen in the figures 23 to 25.

5 Development of Wireframes for a Web-based Platform

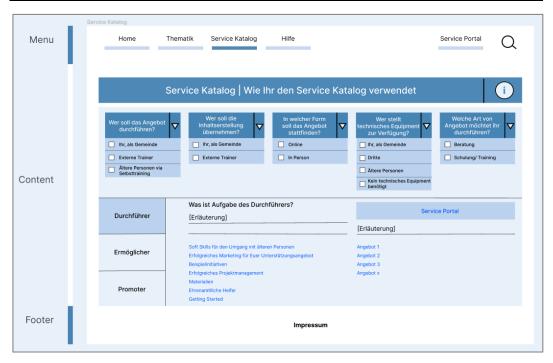


Figure 23: Wireframe Service Catalog (role Executer)

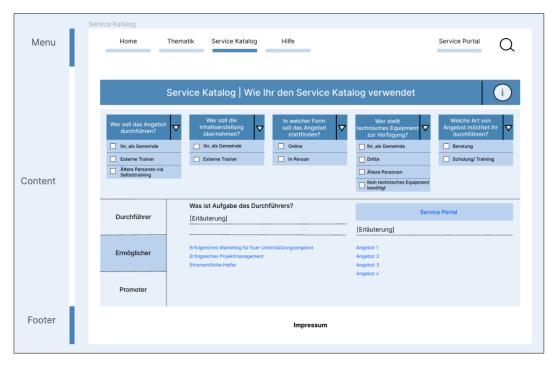


Figure 24: Wireframe Service Catalog (role Enabler)

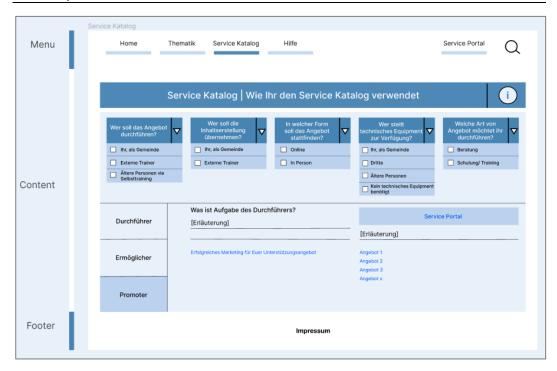


Figure 25: Wireframe Service Catalog (role Promoter)

If a municipality has been motivated by the platform to offer something in the field of increasing digital literacy of older people, the service catalog serves to help in which way municipalities can support exactly. Using filter attributes municipalities can select the conditions that fit in their needs. The page explains how to use the service catalog by clicking on the info button first. Overall, the following five filter categories could be identified from the *filter attributes for service data base* shown in the clustered catalog of requirements:

- Wer soll das Angebot durchführen? (eng. Who should carry out the offer?)
- Wer soll die Inhaltserstellung übernehmen? (eng. Who should be responsible for content creation?)
- In welcher Form soll das Angebot stattfinden? (eng. In what form should the offering take place?)
- Wer stellt technisches Equipment zur Verfügung? (eng. Who will provide technical equipment?)
- Welche Art von Angebot möchtet ihr durchführen? (eng. What kind of offer do you want to carry out?)

With drop-down fields the possibilities within them are shown and can be clicked on by the user. Depending on the selection of the filter attributes the municipality gets suggested results for the implementation of offers. The results are divided into the three roles of implementer, enabler, and promoter, which were previously collected in the expert interviews. For this purpose, an explanation of what each role entails exactly is given. In addition, depending on the role, links are provided to further relevant pages of the platform. On the right side the user also sees a field called *Service Portal*. This shows suitable offers for the role which have been entered by service providers in the service portal of the website. By clicking onto the offers the user is directed to the service portal, where the offers are described in detail.

The following screenshot (figure 26) shows an example of how the service catalog can be applied and what result is shown if the filter attributes with black filling are selected.

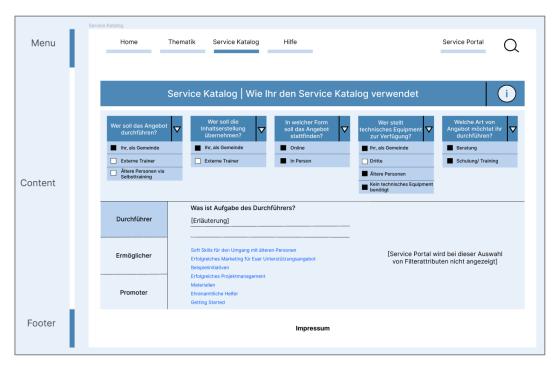


Figure 26: Example Service Catalog (role Executor)

5.2.4 Implementation of the Wireframes for the page Help

By clicking on the button *Hilfe für die Durchführung* at the page *Home* or the tab *Hilfe* found in the menu, the following landing page *Help* is reached, shown by figure 27.

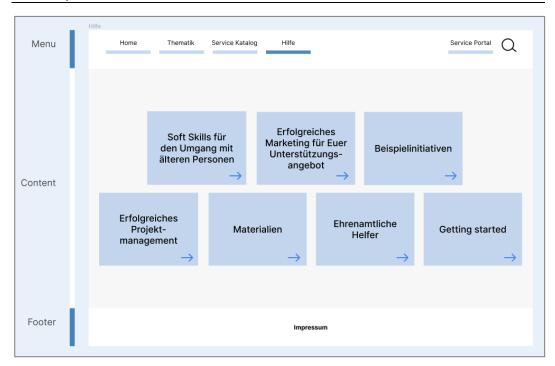


Figure 27: Wireframe Landing Page Help

The topics which are presented in the clustered catalog of requirements as *information for execution* are shown on the page *Help* using seven buttons. By clicking onto the blue arrow the user will be linked to the corresponding page.

The first button links to the wireframe Soft Skills für den Umgang mit älteren Personen (eng. Soft skills for dealing with older people), shown in figure 28.

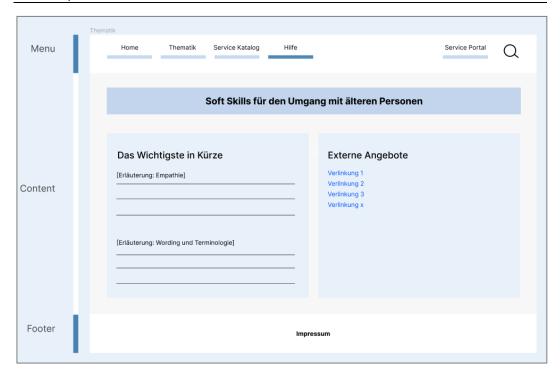


Figure 28: Wireframe Soft skills for dealing with Older People

This page is relevant on the platform because the expert interviews revealed that municipalities have to be shown how to deal with older people appropriately. The focus is placed on the empathy and wording, of which both are covered by explanations on the left-hand side. In addition, the links on the right-hand side of the content block refer to external offers in the form of trainings that cover the soft skills for dealing with older people.

The next button on the landing page *Help* is called *Erfolgreiches Marketing für Euer Unterstützungsangebot* (eng. *Successful marketing for your support offer*) and is addressed because, according to the experts as well as shown in the previous chapter, municipalities can take on the roles of an implementer, enabler and/or promoter. All these roles include the task of bringing their support measures to the target group via the suitable marketing instruments. The platform shows how to do so on a separate page (figure 29).

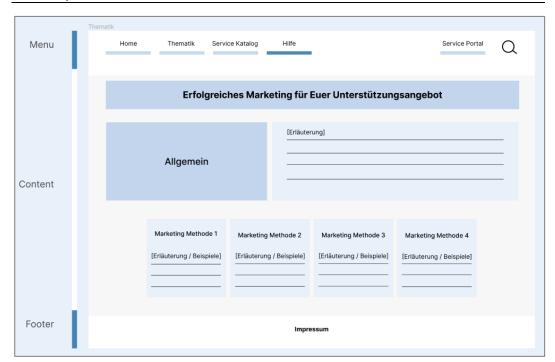


Figure 29: Wireframe Successful Marketing for your support offer

Firstly, some general definitions of marketing instruments are given under the heading *Allgemein* (eng. *General*) before the individual marketing methods municipalities can use are explained below. Examples underline the explanations and should help municipalities to better understand the subject matter.

The button *Beispielinitiativen* (eng. *Sample initiatives*) and page of the same name (figure 30) show municipalities example initiatives and projects on the market.

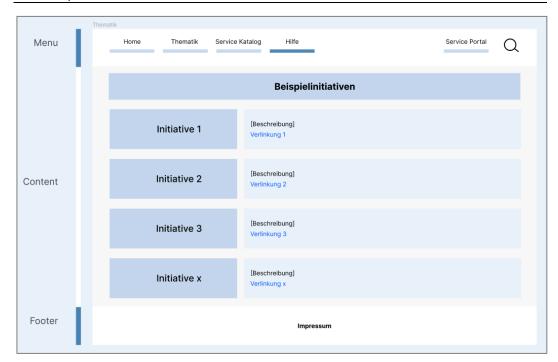


Figure 30: Wireframe Sample Initiatives

Collected in the clustered catalog of requirements municipalities should be shown sample initiatives depending on the type of knowledge transfer. The wireframe shows placeholders for various initiative names on the left side and corresponding descriptions of the initiative or project on the right side. In addition to general information about the initiative the description also includes the type of knowledge transfer covered. In this way, it is possible to find an example initiative that meets the needs of the municipality. The link *Verlinkung* (eng. *Linking*) refers to the homepage of the corresponding initiative.

Another point figured out in the qualitative analysis is that it is helpful to explain how successful project management works in case of implementing offers themselves or co-working with others. Figure 31 shows the corresponding wireframe.

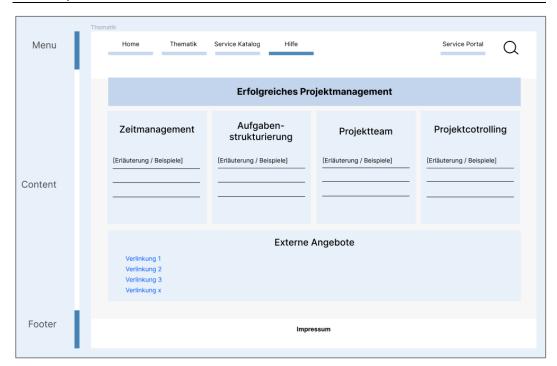


Figure 31: Wireframe Successful Project management

In more detail, the page is structured with four tiles called *Zeitmanagement* (eng. *Time management*), *Aufgabenstrukturierung* (eng. *Task structuring*), *Projektteam* (eng. *Project team*) and *Projektcontrolling* (eng. *Project controlling*). For these, definitions and examples which show the meaning practically are given. An additional block named *Externe Angebote* (eng. *External offerings*) links to external offerings in the field of project management if more information is needed.

Another button on the landing page *Help* has the name *Materialien* (eng. *Materials*) (figure 32) and shows municipalities the different types of materials that are appropriate for older people as well as the different types of knowledge transfer. In the research on initiatives it was shown that many of the analyzed initiatives provide materials which is the reason why the platform should also contain this subject.

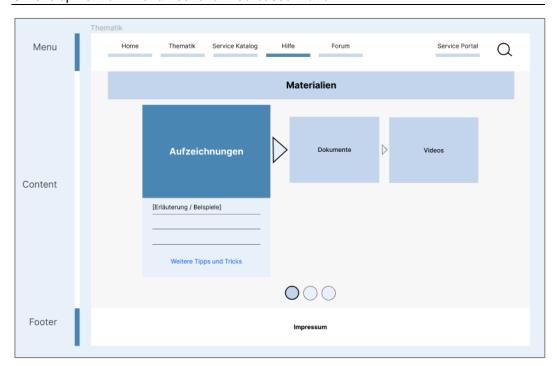


Figure 32: Wireframe Materials

Sliding through the different materials via the arrow or circles below a description as well as examples for each material type are given. With the link *Weitere Tipps und Tricks* (eng. *More tips and tricks*) external Internet pages that give additional information are linked.

With the button *Ehrenamtliche Helfer* (eng. *Volunteers*) (figure 33) the platform addresses the relevance of volunteers listed in the clustered catalog of requirements as well as the way to find them.

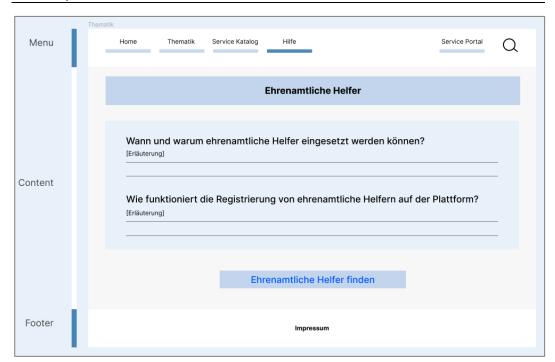


Figure 33: Wireframe Volunteers

This wireframe is of particular interest in case of municipalities carrying out offerings themselves in the role of enablers or facilitators. The page first focuses on the question of when and why volunteers can be used. As the next step it is explained how the registration of volunteers on the platform is made. At the end of the page a button called *Ehrenamtliche Helfer finden* (eng. *Finding volunteers*) links to the page *Service Portal*.

Another requirement is that, if municipalities carrying out offerings themselves it is helpful to list sample guides to get started on the topic of increasing digital literacy. Accordingly, another wireframe called *Getting started* was developed (see figure 34).

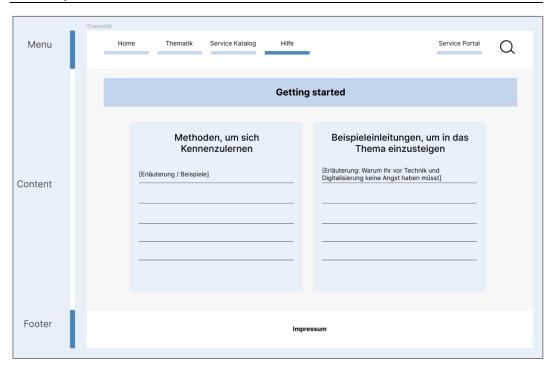


Figure 34: Wireframe Getting started

Via text blocks methods with which the potential participants can get to know each other as well as suitable topics for a start are shown. The expert interviews showed that the question of *Why you don't need to be afraid of technology and digitization* is a suitable starting.

5.2.5 Implementation of the Wireframes for the page Service Portal

By clicking on the tab *Service Portal* found in the menu or if a municipality is linked through via the *Service Catalog* the following landing page (figure 35) is reached.

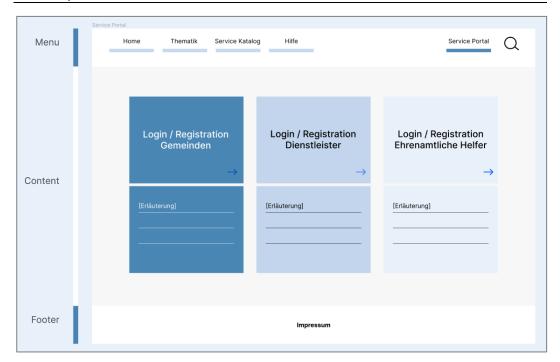


Figure 35: Wireframe Landing Page Service Portal

As highlighted in the interviews with the experts it is partly necessary for municipalities to be supported by service providers and/or volunteers in the implementation of offers in various forms. Accordingly, the wireframe *Service Portal* provides an opportunity to register as a municipality, service provider, and volunteer. For this purpose, the page shows three tiles for login and registration. First, there is a general description of what the registration is useful for. Clicking on the blue arrow takes the user to the respective registration screen, which is shown in the next figure (figure 36).

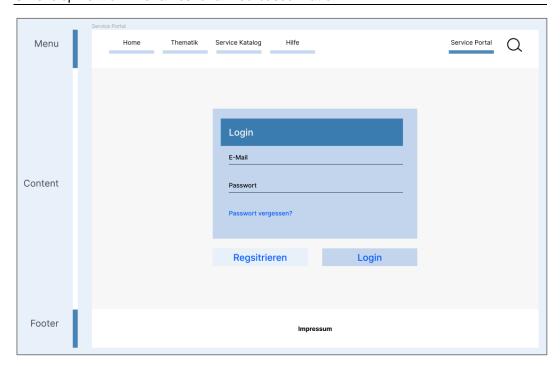


Figure 36: Wireframe Login

Once a municipality has logged into the Service Portal the following display appears, represented by figure 37.

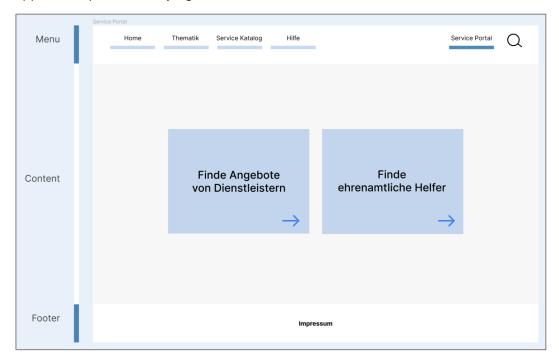


Figure 37: Wireframe Service Portal (Municipality)

Here two fields can be seen that link to finding offers from service providers and finding volunteers who are already registered in the Service Portal.

When a service provider logs in to the Service Portal, it is prompted to submit a service offer using the form *Angebot einer Dienstleistung* (eng. Offer of service), as visible in figure 38.

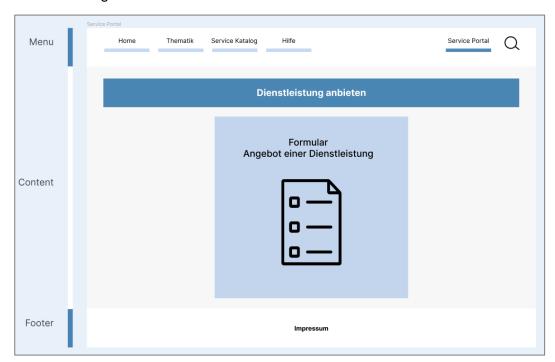


Figure 38: Wireframe Service Portal (Service provider)

Once a volunteer logs in the page shown below will appear (figure 39).

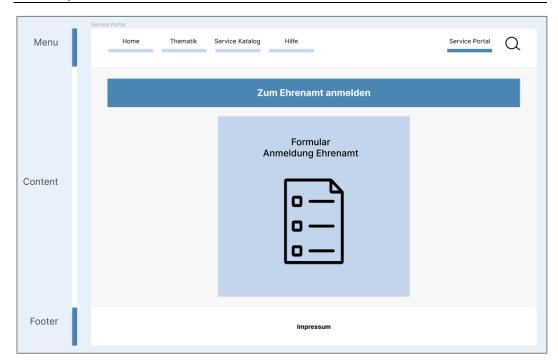


Figure 39: Wireframe Form Volunteers

Like the Service Portal for service providers volunteers are asked to fill out a form (Formular Anmeldung Ehrenamt, eng. Form volunteer registration) presented on the page in order to be included in the database and assist municipalities with support services.

6 Critical Appraisal of the Research Questions and Development of Wireframes

With this chapter the most important results with special focus on the research questions as well as the development of the wireframes, are summarized and critically appreciated.

Considering the theoretical and conceptual background of the master thesis first, chapter 2 figured out, among other things, that digital literacy consists of various sub-disciplines and that there are many ways to classify them. In addition, it has to be mentioned, that the possibility to use digital literacy is important for the population and for social integration. Regarding to older people and their needs it has to be addressed that they cannot be generalized as a homogeneous group. Thus, the needs of older people for acquiring digital literacy differ, for example in terms of the extent to which they learn. But there are also commonalities for this group of people. In this case it can be identified that assistance is helpful in both material and personal form. Looking at the learning formats lectures, courses, and personal consultations it can be seen that they are gladly used by the target group for example. Since the theoretical and conceptual background only considered published literature, it would make sense to conduct a survey of the target group of older people that asks about the needs in terms of increasing digital literacy in detail.

[1] What approaches to increase digital literacy in the area of social integration already exist at the municipal level that meet the individual needs of older people?

The research in context of this question exposed that the approaches of the initiatives show commonalities as well as differences in the execution. Thus, every initiative focuses on the same sub-disciplines of digital literacy, such as the computer, media, and communication literacy. Providing material and using human resources are also in common in the initiatives. For the knowledge transfer, which represents the main difference, diverse types are used, such as in-person consultation, online-, and self-trainings. Nevertheless, all initiatives use learning formats for older persons and their needs in an appropriate way, as found in the literature review. For this research question it must be said that even if the research

on initiatives gives a good, initial overview of what different approaches to increase digital literacy in the area of social integration exist, it represents only a fraction of the initiatives available on the market. Due to the scale of the master thesis not all of them could be considered. In addition, the municipal level is only taken into account in an indirect way. Just one initiative that focuses directly on working with municipalities was found.

[2] How can municipalities be supported to be able to provide needs-based learning and support possibilities for digital literacy for older people?

Regarding this research question, ten themes were identified by the interviews which focuses on the support possibilities for municipalities, so they can provide needs-based learning and support possibilities for digital literacy for older people. According to the experts, municipalities can provide support primarily within the following three roles: implementer, enabler, and promoter. The biggest support for municipalities is therefore the cooperation with service providers and volunteers. Regarding the expert interviews and the research question itself, it should be noted that the small sample of four experts can only be applied to the entire target group of municipalities to a limited extent. However, due to the different municipality sizes and functions of the representatives it can be said that relatively diverse results were obtained.

The aim of the master thesis was to develop wireframes for a web-based platform, that support municipalities in implementing offers for increasing digital literacy for older people. The development of the wireframes can be seen in chapter 5, based on the requirements in the clustered catalog. In general, five main implementation topics as well as 23 wireframes in total were built. In addition to raising awareness and motivation, municipalities receive guidance for the role in which they can support their needs. Furthermore, the platform provides additional information as well as links and achieves that municipalities, service providers as well as volunteers come together. Regarding the wireframes only minor limitations can be noticed. Thus, although the wireframes were developed based on the results of the expert interviews from a municipal perspective, they were not developed directly and in close consultation with the municipal staff.

7 Conclusion and Outlook

In summary, it can be said that the master thesis has shown that digital literacy and increasing it are an important topic in general as well as in relation to older people. Increasing digital literacy offers many opportunities for social integration. Regarding this municipalities play an important supporting role. Depending on their needs and capacities they can act as implementers, enablers, or promoters in close cooperation with other service providers and volunteers.

The focus of the master thesis is on the development of wireframes for a web-based platform for municipalities, which is supposed to support the implementation of measures to increase digital literacy of older persons. For this purpose, research on initiatives as well as expert interviews with representatives from municipalities, initiatives and an expert of gerontology were conducted. The findings of both methodological instruments as well as general information of the literature research were used for the development of the wireframes. Thus, the primary goal of the master thesis, the development of wireframes for a web-based platform to support municipal staff in implementing measures to increase digital literacy, could be achieved.

For further research purposes and steps based on this it is necessary to evaluate and revise the wireframes with the target group of municipal staff and technical experts. In addition, the content as well as technical implementations of the platform, such as the service catalog, the service platform, and the templates, would need to be worked out in detail, based on which an initial prototype can be developed afterwards. After the prototype has been created it could make sense to involve the target group and develop based on their feedback and whishes the final web-based platform. In addition to the technical aspects, it would be useful to consider who is responsible for implementing the platform and bringing it to the municipalities. A possible hypothesis that could be made after the further steps have been implemented is:

The web-based platform raises awareness and motivation of municipalities to become active in the area of increasing digital literacy of older people and empowers municipal staff to provide support in the role that suits their needs.

Therefore, the master thesis forms the basis of the further steps.

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Appendix

A. Research Guide Template

	/fh/
	st.pö
Research Guide for the Research on Initiatives	
General	
Initiative/ Project name:	
Homepage URL:	
Step 1 Which digital literacy sub-disciplines are focused on?	
Step 2 What type of knowledge transfer is used?	
Step 3 Are there people who are relevant for the knowledge transfer and if so which ones and what are their tasks?),
Step 4 What material resources are needed within the initiative/project?	
Step 5 Are learning documents and materials provided?	

B. Research Guide fit4internet

St. Pölten University of Applied Sciences



Research guide | fit4internet

General

Initiative/ Project name: fit4internet: Generation 60+

Homepage URL: https://www.fit4internet.at/view/generation_60plus

Step 1 | Which digital literacy sub-disciplines are focused on?

- Special focus on: Computer literacy
- · Indirect focus on: Media literacy, Communication literacy

Step 2 | What type of knowledge transfer is used?

- "Kaffee digital": in-person consultation with professional trainers and peers (relaxed atmosphere)
- "Smartphone-Führerschein": six in-person courses with professional trainers or voluntary people

Step 3 | Are there people who are relevant for the knowledge transfer and if so, which ones and what are their tasks?

Professional trainers for

- the execution of the courses ("Kaffee digital" and "Smartphone-Führerschein")
- the content preparation of the courses ("Smartphone-Führerschein")
- the training of volunteers who would also like to hold courses ("Smartphone-Führerschein")

Voluntary people for

the support of professional trainers in the execution of the courses ("Smartphone-Führerschein")

Step 4 | What material resources are needed within the initiative/project?

Locations for courses

Step 5 | Are learning documents and materials provided?

- Training material for the "Smartphone-Führerschein"
- Worksheets, overviews and fact sheets on digital topics
- Smartphone-ABC in the form of descriptive short videos

C. Research Guide KommmiT

St. Pölten University of Applied Sciences



Research guide | KommmiT

General

Initiative/ Project name: KommmiT

Homepage URL: https://www.lfk.de/medienkompetenz/seniorinnen-

und-senioren/kommmit

Step 1 | Which digital literacy sub-disciplines are focused on?

· Special focus on: Computer literacy, Media literacy, Communication literacy

Step 2 | What type of knowledge transfer is used?

- In-person consultation hours and trainings with voluntary caregivers
- Online self-trainings

Step 3 | Are there people who are relevant for the knowledge transfer and if so, which ones and what are their tasks?

Professional trainers for

 the content preparation of training materials (for the education of the voluntary caregivers and for the online self-trainings)

Voluntary caregivers for

· the execution of the consultation hours and trainings

Step 4 | What material resources are needed within the initiative/project?

- Technical equipment (tablets with which digital learning content can be practiced practically)
- Locations for consultation hours

Step 5 | Are learning documents and materials provided?

Training material: 12 learning units in the form of documents

Research Guide Digital, gesund altern

St. Pölten University of Applied Sciences



Research guide | Digital, gesund altern

General

Initiative/ Project name: Digital, gesund altern Homepage URL:

https://www.waldviertler-

kernland.at/cms/digital_gesund_altern/

Step 1 | Which digital literacy sub-disciplines are focused on?

- Special focus on: Computer literacy
- Indirect focus on: Media literacy, Communication literacy

Step 2 | What type of knowledge transfer is used?

- "Smart-Cafés": in-person consultation with advisors and peers (relaxed atmosphere)
- "STUPSI": an app developed with older people to apply what they have learned

Step 3 | Are there people who are relevant for the knowledge transfer and if so, which ones and what are their tasks?

Professional trainers for

· the education of the voluntary advisors

Voluntary advisors for

· the execution of the "Smart-Cafés"

Step 4 | What material resources are needed within the initiative/project?

· Locations for "Smart-Cafés" (e.g., provided by libraries and municipalities)

Step 5 | Are learning documents and materials provided?

n.a.

E. Research Guide Digital Kompass

St. Pölten University of Applied Sciences



Research guide | Digital Kompass

General

Initiative/ Project name: Digital Kompass

Homepage URL: https://www.digital-kompass.de/

Step 1 | Which digital literacy sub-disciplines are focused on?

 Special focus on: Computer literacy, Media literacy, Communication literacy, Social media literacy

Step 2 | What type of knowledge transfer is used?

- · Digital online consultation sessions with professional trainers and peers
- Digital regulars' tables (online or in-person) with professional trainers and peers
- Online lectures, trainings, and material for self-training

Step 3 | Are there people who are relevant for the knowledge transfer and if so, which ones and what are their tasks?

Professional trainers for

- · the content preparation of training materials
- the execution of online consultation sessions, digital regulars' tables, lectures, and trainings

Step 4 | What material resources are needed within the initiative/project?

Locations for digital regulars' tables

Step 5 | Are learning documents and materials provided?

Training material: documents, recorded lectures, and trainings

F. Email Draft for the first contact for Expert Interviews

St. Pölten University of Applied Sciences



Erstkontakt per E-Mail | Allgemein

Betreff: Steigerung der digitalen Kompetenzen von älteren Personen | Suche nach Teilnehmer:innen für Interview

Sehr geehrte Damen und Herren,

im Rahmen meiner Masterarbeit des Studiengangs Digital Healthcare an der Fachhochschule St. Pölten suche ich Teilnehmer:innen für ein Interview.

Ziel meiner Masterarbeit ist es, ein Konzept für eine webbasierte Plattform für niederösterreichische Gemeinden zur Unterstützung des Personals bei der Umsetzung von Angeboten für ältere Menschen zur Steigerung der digitalen Kompetenz im Hinblick auf soziale Integration zu entwickeln. Ziel des Interviews ist es, Daten bezüglich der Bedürfnisse, Erfahrungen, Motivation sowie Herausforderungen von Gemeinden, Initiativen und anderen Vertreter:innen in Bezug auf die Unterstützung älterer Personen beim Erlernen von digitalen Kompetenzen zu generieren.

Das Interview findet online via Zoom zu einem vereinbarten Termin statt. Die Dauer des Interviews beläuft sich auf circa 30 Minuten.

Bei Interesse an einer Teilnahme oder weiteren Fragen kontaktieren Sie mich gerne unter dhb.21@fhstp.ac.at oder +49 151 20179075.

Mit freundlichen Grüßen.

Laura Scheller

G. Notes for the first contact by phone call for Expert Interviews

St. Pölten University of Applied Sciences



Erstkontakt per Telefon | Allgemein

Wer bin ich?

- Laura Scheller, 23 Jahre, aus Deutschland
- Masterstudentin an der Hochschule St. Pölten, Studiengang Digital Healthcare

Über was schreibe ich meine Masterarbeit?

- Entwicklung eines Konzepts für eine webbasierte Plattform für niederösterreichische Gemeinden zur Unterstützung des Personals bei der Umsetzung von Angeboten für ältere Menschen zur Steigerung der digitalen Kompetenz im Hinblick auf soziale Integration
- · Ich schaue mir dafür bestehende Initiativen und deren Ansätze an
- Überlege, wie Gemeinden diese Ansätze nutzen können

Warum möchte ich gerne Experteninterviews durchführen?

 Um Daten bezüglich der Bedürfnisse, Erfahrungen, Motivation sowie Herausforderungen von Gemeinden/ Initiativen/ anderen in Bezug auf die Unterstützung älterer Personen beim Erlernen von digitalen Kompetenzen zu generieren

Wie werden die Experteninterviews stattfinden?

- TeilnehmerInnen-Information und Einwilligungserklärung per Mail
- · Interview findet zu einem vereinbarten Termin online statt
- · Dauer: ca. 30 Minuten

Kontaktdaten:

- dh201822@fhstp.ac.at
- +49 151 20179075

H. Participant Information and Consent Form for Expert Interviews

St. Pölten University of Applied Sciences



TeilnehmerInnen-Information und Einwilligungserklärung

Sehr geehrte Teilnehmerin, sehr geehrter Teilnehmer,

herzlichen Dank, dass Sie sich für die Teilnahme an einem Interview im Rahmen meiner Masterarbeit der Fachhochschule St. Pölten bereit erklären.

Ihre Teilnahme an diesem Interview erfolgt freiwillig. Im Folgenden finden Sie alle wichtigen Informationen über die Teilnahme sowie die Einwilligungserklärung. Ich bitte Sie diese zu unterschreiben und mir zukommen zu lassen.

Sollten Sie weitere Fragen haben oder sich für das Ergebnis der Masterarbeit interessieren, können Sie mich gerne unter dh201822@fhstp.ac.at oder 449 151 20179075 kontaktieren.

Mit freundlichen Grüßen.

Laura Scheller

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TeilnehmerInnen-Information

Titel der Masterarbeit

Entwicklung einer webbasierten Plattform für niederösterreichische Gemeinden zur Unterstützung des Personals bei der Umsetzung von Angeboten für ältere Menschen zur Steigerung der digitalen Kompetenz im Hinblick auf soziale Integration

Kurzinformation über die Masterarbeit

Die Digitalisierung eröffnet der Gesellschaft im Allgemeinen wie auch der älteren Bevölkerung neue Möglichkeiten der Alltagsgestaltung und Teilhabe am gesellschaftlichen Leben. Dies setzt jedoch bestimmte Fähigkeiten im Umgang mit digitalen Angeboten voraus. Ältere Menschen werden auf dem Weg zum Erlernen sowie Ausbau digitaler Kompetenzen nicht immer effizient und bedarfsgerecht unterstützt. Die kommunale Ebene und die Gemeinden selbst sind wichtige Akteure bei der Gestaltung und Umsetzung von Angeboten sowie Dienstleistungen rund um das Erlernen von digitalen Kompetenzen für ältere Menschen.

Das Ziel der Masterarbeit ist daher die Entwicklung eines Konzeptes für eine webbasierte Plattform für Gemeinden in Niederösterreich. Die Plattform soll zur Unterstützung und Bewusstseinsbildung der Gemeindebediensteten dienen, um ältere Menschen bei dem Erlernen und der Steigerung digitaler Kompetenzen zu unterstützen. Hierbei wird sich auf das Themenfeld soziale Integration bezogen. Die Serviceplattform soll die Möglichkeit schaffen, dass die Umsetzung von Angeboten für ältere Menschen zur Steigerung der digitalen Kompetenz von Gemeinden einfach und interaktiv geplant und gestaltet werden kann.

Ablauf des Interviews

Das Interview findet online via Zoom zum vereinbarten Termin am

Tag, DD.MM.YYYY von hh:mm bis hh:mm Uhr

statt. Bitte wählen Sie sich über den folgenden Teilnahmelink ein: Platzhalter Link.

2,14



Die Dauer des Interviews beläuft sich auf circa 30 Minuten. Interviewverantwortliche sowie -durchführende Person ist Laura Scheller. Für die Teilnahme am Interview ist die unterschriebene sowie vorliegende Einwilligungserklärung Voraussetzung.

Zweck der Datenerhebung und -verarbeitung

Das Interview wird dazu genutzt, um Daten bezüglich der Bedürfnisse, Erfahrungen, Motivation sowie Herausforderungen von Gemeinden und deren VertreterInnen in Bezug auf die Unterstützung älterer Personen beim Erlernen von digitalen Kompetenzen zu generieren.

Das Interview wird zu Protokollzwecken aufgezeichnet. Ihre Antworten werden zum Zweck der Datenanalyse verschriftlicht, wobei die Daten anonymisiert werden.

Welche Daten werden erhoben?

- indirekt personenbezogene Audio- und Videodaten
- nicht personenbezogene, anonymisierte Mitschriften

Wer hat Zugriff auf die Daten?

Zugriff auf die Rohdaten des Online-Interviews obliegt lediglich der Interviewverantwortlichen sowie -durchführenden Person Laura Scheller. Die erhobenen Daten werden vertraulich behandelt und nicht an Dritte weitergegeben.

Ihre Teilnahme an diesem Interview erfolgt freiwillig. Wenn Sie ihre abgegebene Einwilligung zu einem späteren Zeitpunkt widerrufen möchten, können Sie dies bis zu Beginn der Auswertungsphase ohne Angabe einer Begründung tun.

3/4



Einwilligungserklärung

Ich erkläre hiermit mein Einverständnis zur Nutzung der Daten, die im Rahmen des folgenden Gesprächs erhoben wurden:

•	
	Name der interviewenden Person:
•	Interviewerin: Laura Scheller
•	Forschungsprojekt: Entwicklung einer webbasierten Plattform für nieder-
	österreichische Gemeinden zur Unterstützung des Personals bei der Umsetzung von
	Angeboten für ältere Menschen zur Steigerung der digitalen Kompetenz im Hinblick
	auf soziale Integration
•	Durchführende Institution: Fachhochschule St. Pölten
	en werden im Rahmen eines Online-Gesprächs erhoben, das mit der Plattform Zoom
	eführt und aufgezeichnet wird. Zum Zwecke der Datenanalyse werden die mündlich
	nen Daten verschriftlicht (Transkription), wobei die Daten anonymisiert werden. Eine
Identifiz	ierung der interviewten Person ist somit ausgeschlossen.
Die Tei	lnahme an dem Gespräch erfolgt freiwillig. Das Gespräch kann zu jedem Zeitpunkt
abgebro	ochen werden. Das Einverständnis zur Aufzeichnung und Weiterverwendung der Daten
kann bi	s zu Beginn der Auswertungsphase widerrufen werden.
Name, \	Vorname
Name, \	√orname
Name, \	√orname
Name, \	
	hrift
Unterso	hrift
Unterso	hrift

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I. Interview Guide Representatives from municipalities in Lower Austria

St. Pölten University of Applied Sciences



Interview guide "Representatives from municipalities in Lower Austria"

Allgemeines	
Interviewer:	Laura Scheller
Interviewte Person:	
Datum:	
Uhrzeit:	

Begrüßung

- · Herzlich willkommen heißen
- · Bedanken für das Zeitnehmen, Einwilligung zum Interview
- Hinweis auf Aufzeichnung, unterschriebene Einwilligungserklärung
- Vorstellung Person und Masterarbeits-Thema
- Hinweis auf Fragen stellen

Ausblick: Ablauf Interview

- Begriffsdefinition "Digitale Kompetenz"
- Kurze Einstiegsfrage
- Thematische Vertiefungsfragen (offene Fragen)
- Ende
- Hinweis auf keine richtigen oder falschen Antworten
- Hinweis auf Anonymisierung der Antworten in Masterarbeit

Begriffsdefinition "Digitale Kompetenz"

- Digitale Kompetenzen bezeichnen die Kenntnisse und F\u00e4higkeiten, die f\u00fcr die Nutzung von Informations- und Kommunikationstechnologien und digitalen Medien sowie allgemein f\u00fcr den selbstbestimmten Umgang mit der Digitalisierung erforderlich sind
- Zum Beispiel brauchen gerade ältere Menschen digitale Kompetenzen im Bereich der sozialen Teilhabe. Digitale Kommunikationstechnologien ermöglichen hier älteren Menschen beispielsweise Kontakte auf digitale Art und Weise zu pflegen, was durch die Pandemie wichtiger denn je wurde

Einstiegsfrage

Welche Rolle und zentrale Aufgaben haben Sie in der Gemeinde, die sie heute vertreten? Sind diese eher politischer Natur oder gehen sie in Richtung Verwaltung?



Start | Thematische Vertiefungsfragen

Wie schätzen Sie folgende Frage ein: Verfügt die ältere Bevölkerung in ihrer Gemeinde über ausreichende Kompetenzen, digitale Angebote nutzen zu können?

Kann die ältere Bevölkerung beispielsweise die Webseite ihrer Gemeinde aufrufen und sich über anstehende Termine oder die aktuellen Corona-Regeln informieren?

"Kompetenzen ausreichend vorhanden"		"Kompetenzen nicht ausreichend vorhanden"	
Können Sie einschätzen, wie die ältere Bevölkerung die digitalen Kompetenzen erlernt haben? Haben eventuell Sie, als Gemeinde aktiv dazu beigetragen, dass diese älteren Personen digitale Kompetenzen besitzen?		Ist es Ihnen als Geme unterstützen, die digitz älteren Personen in ih auszubauen?	alen Kompetenzen der
"Ja"	"Nein"	"Ja"	"Nein"
Warum haben Sie sich dafür entschieden, zu unterstützen? Wie sind Sie dabei vorgegangen und was hat Sie dabei motiviert?	Ist es Ihnen als Gemeinde ein Anliegen zu unterstützen, dass diese Kompetenzen erhalten bleiben/ ausgebaut werden?	Warum ist es Ihnen denn ein Anliegen? Was motiviert Sie dabei?	Ist es Ihnen kein Anliegen, da es Ihnen an Unterstützungs- möglichkeiten fehlt oder aus anderen Gründen? Könnten Sie sich vorstellen, dass es in Zukunft für Sie ein Anliegen wird?



Verabschiedung

- Danksagung
- Hinweis auf Zuschicken der fertigen Masterarbeit
- Optional: Frage nach weiteren möglichen Interviewpartnern

J. Interview Guide Representatives from initiatives in Lower Austria

St. Pölten University of Applied Sciences



Interview guide "Representatives from initiatives in Lower Austria"

Allgemeines	
Interviewer:	Laura Scheller
Interviewte Person:	
Datum:	
Uhrzeit:	

Begrüßung

- Herzlich willkommen heißen
- · Bedanken für das Zeitnehmen, Einwilligung zum Interview
- · Hinweis auf Aufzeichnung, unterschriebene Einwilligungserklärung
- Vorstellung Person und Masterarbeits-Thema
- · Hinweis auf Fragen stellen

Ausblick: Ablauf Interview

- Begriffsdefinition "Digitale Kompetenz"
- Kurze Einstiegsfrage
- Thematische Vertiefungsfragen (offene Fragen)
- End
- Hinweis auf keine richtigen oder falschen Antworten
- Hinweis auf Anonymisierung der Antworten in Masterarbeit

Begriffsdefinition "Digitale Kompetenz"

- Digitale Kompetenzen bezeichnen die Kenntnisse und F\u00e4higkeiten, die f\u00fcr die Nutzung von Informations- und Kommunikationstechnologien und digitalen Medien sowie allgemein f\u00fcr den selbstbestimmten Umgang mit der Digitalisierung erforderlich sind
- Zum Beispiel brauchen gerade ältere Menschen digitale Kompetenzen im Bereich der sozialen Teilhabe. Digitale Kommunikationstechnologien ermöglichen hier älteren Menschen beispielsweise Kontakte auf digitale Art und Weise zu pflegen, was durch die Pandemie wichtiger denn je wurde

Einstiegsfrage

Welche Rolle und zentrale Aufgaben haben Sie als Geschäftsführung des Vereins "Vereinsname" und spezieller als Projektleitung des in diesem Rahmen entstandenen Projektes "Projektname"?



Start | Thematische Vertiefungsfragen

- · Welche Rolle spielen die Gemeinden aus Ihrer Sicht allgemein in Bezug auf den Ausbau digitaler Kompetenzen von älteren Personen und spezieller im Rahmen ihres Projektes "Digital gesund altern"?
- Wie sieht ihre Zusammenarbeit mit den Gemeinden hierbei konkret aus? Was funktioniert gut und wo liegen vielleicht noch Herausforderungen?
- Ist das Bewusstsein der Gemeinden für die Thematik der Steigerung digitaler Kompetenzen für ältere Personen aus ihrer Sicht unzureichend oder stellt die Umsetzung eine Herausforderung für die Gemeinden dar?

"Bewusstsein unzureichend" "Herausforderung Umsetzung" Können Sie sich vorstellen, was Was würde Gemeinden aus ihrer Sicht und der Erfahrung aus Gemeinden bei der Umsetzung anderen Projekten motivieren aktiv fehlt? Weswegen die Umsetzung zu werden? Bewusstsein zu eine Herausforderung ist? bekommen? Welche Können Sie sich vorstellen, dass Unterstützungsmöglichkeiten könnte Unterstützungsmöglichkeiten man Gemeinden für die Umsetzung Gemeinden motivieren und bei der geben? Umsetzung helfen würden? Gibt es in anderen Bereichen und Wenn ja, welche aus ihrer Erfahrung von anderen Unterstützungsmöglichkeiten könnte Projekten man Gemeinden geben? Unterstützungsmöglichkeiten, die Gemeinden besonders helfen?

Verabschiedung

- Danksagung
- Hinweis auf Zuschicken der fertigen Masterarbeit
- Optional: Frage nach weiteren möglichen Interviewpartnern

K. Interview Guide Experts in the field of gerontology and/or working with municipalities

St. Pölten University of Applied Sciences



Interview guide "Experts in the field of gerontology and/or working with municipalities"

Allgemeines	
Interviewer:	Laura Scheller
Interviewte Person:	
Datum:	
Uhrzeit:	

Begrüßung

- · Herzlich willkommen heißen
- Bedanken f
 ür das Zeitnehmen, Einwilligung zum Interview
- Hinweis auf Aufzeichnung, unterschriebene Einwilligungserklärung
- Vorstellung Person und Masterarbeits-Thema
- Hinweis auf Fragen stellen

Ausblick: Ablauf Interview

- Begriffsdefinition "Digitale Kompetenz"
- Kurze Einstiegsfrage
- Thematische Vertiefungsfragen (offene Fragen)
- Ende
- Hinweis auf keine richtigen oder falschen Antworten
- Hinweis auf Anonymisierung der Antworten in Masterarbeit

Begriffsdefinition "Digitale Kompetenz"

- Digitale Kompetenzen bezeichnen die Kenntnisse und F\u00e4higkeiten, die f\u00fcr die Nutzung von Informations- und Kommunikationstechnologien und digitalen Medien sowie allgemein f\u00fcr den selbstbestimmten Umgang mit der Digitalisierung erforderlich sind
- Zum Beispiel brauchen gerade ältere Menschen digitale Kompetenzen im Bereich der sozialen Teilhabe. Digitale Kommunikationstechnologien ermöglichen hier älteren Menschen beispielsweise Kontakte auf digitale Art und Weise zu pflegen, was durch die Pandemie wichtiger denn je wurde

Einstiegsfrage

Was sind ihre zentralen Aufgaben als Pfegeexperte und Mediator? Gibt es Schnittstellen zwischen diesen beiden Bereichen und haben Sie dabei Berührungspunkte mit Gemeinden?



Start | Thematische Vertiefungsfragen

Wie schätzen Sie folgende Frage ein: Verfügt die ältere Bevölkerung in ihrem privaten und/ oder beruflichen Umfeld über ausreichende Kompetenzen, digitale Angebote nutzen zu können?

Kann die ältere Bevölkerung beispielsweise ihre Webseite aufrufen?

"Kompetenzen ausreichend vorhanden"		"Kompetenzen nicht ausreichend vorhanden"	
Können Sie einschätzen, wie die ältere Bevölkerung die digitalen Kompetenzen erlernt haben? Glauben Sie, dass die entsprechende Gemeinde, in der diese wohnen, aktiv dazu beigetragen hat, dass sie digitale Kompetenzen besitzen?		älteren Bevölkerung auszubauen?	
"Ja"	"Nein"	"Ja"	"Nein"
Wissen Sie, wie die entsprechenden Gemeinden dazu beigetragen haben? Ist die Arbeit der Gemeinden diesbezüglich transparent?	Sehen Sie die Gemeinde als Rolle, die digitalen Kompetenzen der älteren Bevölkerung auszubauen?	Wissen Sie, wie die entsprechenden Gemeinden dazu beigetragen haben? Ist die Arbeit der Gemeinden diesbezüglich transparent?	Sehen Sie die Gemeinde als Rolle, die digitalen Kompetenzen der älteren Bevölkerung auszubauen? ———————————————————————————————————



Gibt es aus Ihrer	Gibt es aus Ihrer
Sicht zentrale	Sicht zentrale
Herausforderungen,	Herausforderungen,
die darauf einspielen	die darauf einspielen
(z.B. Personal-	(z.B. Personal-
mangel, etc.)?	mangel, etc.)?
Können Gemeinden trotzdem als Schnittstelle dienen, digitale Kompetenzen voranzutreiben (z.B. als Kapitalgeber, Vermittler, etc.)?	Können Gemeinden trotzdem als Schnittstelle dienen, digitale Kompetenzen voranzutreiben (z.B. als Kapitalgeber, Vermittler, etc.)?

Verabschiedung

- Danksagung
- · Hinweis auf Zuschicken der fertigen Masterarbeit
- Optional: Frage nach weiteren möglichen Interviewpartnern

L. Phase 2: Generating Initial Codes

Data Base	Codes		
Experteninterview 1 Ländliche Gemeinde in Niederösterreich Funktion/Rolle der befragten Person: Verwaltung			
00:05:16 - 00:05:47	 Digitale Kompetenz ist wichtiges, zu wenig behandeltes Thema Zielgruppe "ältere Personen" und deren Bedürfnisse sind als solches wichtige Themen 		
00:06:50	Bedürfnisabfrage der Bürger in einer Gemeinde als Start von Initiativen/Projekte		
00:07:26	 Nutzen der Zusatz-Arbeit für eine Gemeinde aufzeigen Zeitmanagement und Aufgabenstrukturierung sind für die Ausarbeitung eines Projektes relevant und können Einführung/Ablauf erleichtern 		
00:08:57	Allgemein unzureichende digitale Kompetenzen bei älteren Personen		
00:08:59	 Individuellen Zustand digitaler Kompetenzen berücksichtigen 		
00:09:16	 Gemeinde als koordinative Funktion bei Projekten/Initiativen 		
00:09:36	 Relevanz eines digitalen Ansprechpartners/unterstützenden Person für ältere Personen Fehlendes digitales Equipment bei älteren Personen 		
00:09:58 – 00:10:12	 Digitale Kompetenzen vereinzelt bei älteren Personen vorhanden 		
00:10:18	Beispiel für den Ausbau digitaler Kompetenzen älterer Personen: Computerkurs		
00:10:31	Unzureichende Möglichkeiten digitale Kompetenzen zu erlangen/erhöhen		
00:12:21 – 00:13:41	Motivation für die Unterstützung beim Ausbau digitaler Kompetenzen aufgrund von		

	Veranstaltung im Zuge des Tags der älteren Generation • Bedürfnisabfrage der Bürger in der Gemeinde zur Fragestellung "Was können wir als Gemeinde tun, um dein Leben lebenswerter zu machen?"
00:13:51 – 00:14:21	 Organisation des Computerkurs wird von Gemeinde übernommen Zusammenarbeit in Ausarbeitung des Computerkurs mit inhaltlichen Experten Marketinginstrumente (Flyer etc.) werden von Gemeinde erstellt Wunsch und Bedürfnisse innerhalb der Gemeinde identifizieren und darauf eingehen
00:15:05	 Gemeinde stellt Räumlichkeiten zur Verfügung (z.B. für Computerkurs) Gemeinde überlegt sich Rahmenbedingungen (z.B. wie oft und wie lang findet Kurs zu welchem Preis statt) Gemeinde als Kapitalgeber
00:16:52	 Behandlung der Thematik Angst/Hemmschwelle vor Technik und Digitalisierung als erster Schritt für eine Gemeinde
Bedürfnisse der Zielgruppe abfragen und deingehen Gemeinde als Zuständigkeit für Infrastrukti (z.B. Glasfaser)	
00:19:10 – 00:19:31	 Unterstützungsmöglichkeiten für eine Gemeinde hinsichtlich Einführung von Angeboten zur Steigerung digitaler Kompetenz werden primär nicht gebraucht Konzepte werden durch Zusammenarbeit mit Netzwerk ausgearbeitet Equipment (z.B. Computer) wird nicht durch Gemeinde bereitgestellt Inhalt für Marketingmaßnahmen (Flyer) wird vom Experten erarbeitet
00:21:08 – 00:21:56	Relevanz einer guten Vernetzung innerhalb der Gemeinde für die Umsetzung und Implementierung digitaler Projekte/Initiativen

	 Idee: Zeitbörse für ältere Personen und Gemeinde mit dem Ansatz "Suche – Finde" und Netzwerkgedanken 	
00:23:16 – 00:23:36	Zusatzinformationen sind per se immer hilfreichPlattform bietet Möglichkeit zum Nachschauen	
00:23:57 – 00:25:33	 Angabe von Betreuungszeiten, Betreuungspersonen Unterstützung pflegender Angehöriger "Will – Haben – Börse" (sowohl personell als auch auf Ressourcen bezogen), auf die Gemeinde zurückgreifen kann 	
Experteninterview 2		
Städtische Gemeinde Funktion/Rolle der be	in Niederösterreich fragten Person: Politisch	
00:02:23	 Thema "Ausbau digitaler Kompetenzen" kein relevantes Thema für Gemeinde, sondern für den Bund 	
00:05:11	 Barrierefreiheit als Voraussetzung für Aufruf einer Webseite Ansprechperson als Unterstützung im Umgang mit Webseite 	
00:05:31 – 00:05:55	 Digitale Kompetenzen der älteren Bevölkerung schwer einzuschätzen, da diese (von Gemeinden) nicht abgefragt werden Steigerung digitaler Kompetenzen nicht Aufgabe einer Gemeinde 	
00:06:06	Digitalisierung (z.B. digitale Formulare) ist Standard, der vom Land und Bund vorgegeben ist	
00:06:21 – 00:06:34	 Status der digitalen Kompetenz wird von Gemeinde nicht abgefragt 	
00:07:05	 Zielgruppe "ältere Personen" sollte definiert werden 	
00:08:07	Ältere erwerbstätige Personen sind häufig digital affin, auch durch Corona	
00:08:15 – 00:08:57	Digitale Kompetenzen bei älteren Personen im städtischen Bereich tendenziell nicht schlecht	

	 Angebote f ür die Unterst ützung mit digitalen
	Technologien wird teilweise über Vereine (z.B.
	Sportvereine) gegeben
	Digitale Kompetenzen im ländlichen Bereich
00:09:00	eher weniger vorhanden
00.00.00	 Unterstützungsangebot im ländlichen Bereich
	weniger vorhanden
	 Digitale Kompetenzen im ländlichen Bereich für
00:09:06 – 00:09:15	soziale Integration wichtig
00.09.00 - 00.09.13	 Vereinsamung durch fehlende digitale
	Kompetenzen
	Gemeinde unterstützt nicht im Gesamten beim
00:10:03	Ausbau digitaler Kompetenzen
00.10.03	Einzelne politische Vertreter, die Vereine beim
	Ausbau digitaler Kompetenzen unterstützen
	 Gemeinde kann aufgrund fehlender räumlicher
00:10:23 - 00:10:40	und personeller Ressourcen (PCs, etc.) nicht
	unterstützen
	 Gemeinde nicht zuständig für Unterstützungs-
	Angebot
	 Andere Akteure, wie Wirtschaftskammer,
00:11:32 – 00:12:25	Landesregierung, Land, die hinsichtlich
00.11.32 - 00.12.23	Steigerung digitaler Kompetenzen etwas
	anbieten
	 Gleichheitsgrundsatz zwischen Gemeinden
	innerhalb eines Bundeslands sehr wichtig
	 Unterstützungsmöglichkeiten braucht es nicht,
	da nicht Aufgabe der Gemeinden
00:13:33 – 00:14:59	Zusätzliche Herausforderungen einer Gemeinde:
	IT-Security, Anforderungen von IT im
	öffentlichen Bereich, technische Barrieren
00:15:50	Gemeinde als Finanzgeber
00:15:52	Gemeinde als Multiplikator
00:46:40	Gemeinde in der Rolle des Finanzgeber/-
00:16:10	unterstützer
00.16:46	Gemeinde für Subvention
	Für Gemeinden ist ein Portal hilfreich, das zeigt,
00:47:05	welche Initiativen es gibt
00:17:25	Gemeinden können dann als unterstützende
	Funktion dienen

00:18:38 – 00:18:39	Älteren Personen wird für den Ausbau digitaler Kompetenzen zu wenig Unterstützung im Allgemeinen angebeten.	
Fun antanintamiau 2	Allgemeinen angeboten	
Experteninterview 3	franton Darson, Office accuments	
Funktion/Rolle der be	fragten Person: Pflegeexperte	
00:03:38	 Video-Kommunikation f ür ältere Personen als Chance 	
00:06:13	Unterschiedliche Rahmenbedingungen bezüglich Digitalisierung in ländlichen und städtischen Gemeinden	
00:08:59 – 00:09:16	Relevanz digitaler Kompetenzen bei älteren Personen individuell	
00:10:04	 Digitalisierung als Werkzeug, um Menschen miteinander zu verbinden und Möglichkeiten zu schaffen, um Wissen sehr schnell zu lukrieren 	
00:11:32 – 00:13:36	 Der älteren Bevölkerung darf nicht mit Angeboten gezeigt werden, sie müssen nun digital affin werden – "digitaler Zwang"/"digitale Ausgrenzung" 	
00:13:59	 Relevanz der Eigenverantwortung beim Ausbau digitaler Kompetenzen 	
00:16:03 – 00:16:37	 Relevanz Standortvorteil für Gemeinden, um Abzug in städtische Gebiete zu vermeiden 	
00:17:25	Wenn sich Gemeinden mit Thema Ausbau digitaler Kompetenzen beschäftigen, bietet ihnen das auch einen gewissen Vorteil, sie können damit "werben"	
00:18:20 – 00:18:39	 Für Gemeinden ist es wichtig/attraktiv erwerbstätige Personen in Gemeinde zu halten → Gemeinden aufzeigen, dass es auch attraktiv ist, die ältere Bevölkerung in der Gemeinde zu halten 	
00:20:03	Digitale Angebote, wie Infrastruktur muss immer freiwillig sein	
00:21:18 – 00:21:54	 Gemeinden müssen der älteren Bevölkerung erklären, was der Vorteil an digitalen Kompetenzen ist Gemeinde als Sponsor 	

00:23:56 - 00:24:05	Barrierefreiheit von Webseiten für ältere Personen beachten	
	Gemeinden aufzeigen, wie sie mit älteren	
00.05.40	Bevölkerung umgehen, die digitale	
00:25:13	Kompetenzen nicht ausbauen möchten (digitale	
	Ausgrenzung vermeiden)	
	Gemeinden müssen Vorteile des Ausbaus	
00:26:49 - 00:26:59	digitaler Kompetenzen für die Verbesserung der	
	Lebensqualität der Zielgruppe aufzeigen	
	Gemeinden vermitteln, wie sie an Menschen	
00:29:31	herangehen (Einfühlungsvermögen), die noch	
00.29.31	keinerlei/wenig Berührungspunkte mit	
	Digitalisierung haben	
00:30:54	 Wichtiger Schritt ist, welche Bedürfnisse die 	
00.00.04	Zielgruppe ältere Personen haben	
	 Inhalte müssen von Gemeinden inhaltlich 	
	niederschwellig aufbereitet werden	
00:32:14 - 00:32:23	 Wenn Gemeinden etwas anbieten, das auch mal 	
	mit der Zielgruppe durchtesten, auf	
Verständlichkeit prüfen		
00:34:01 – 00:34:08	Wortlaut an Zielgruppe anpassen	
00:35:02	 Begrifflichkeiten müssen erklärt werden 	
00.00.02	(Beispiel: Glasfaserkabel)	
00:43:00	 Gemeinde muss Einfühlungsvermögen 	
50.70.00	berücksichtigen	
Experteninterview 4		
	fragten Person: Geschäftsführung eines Vereins, der sich	
mit Gesundheitsförde	rung für ältere Personen beschäftigt	
	Wichtig für den Start eines Projektes: Zielgruppe	
00.04.57 00.00.05	befragen, Bedürfnisse der Zielgruppe	
00:01:57 – 00:02:35	herausfinden sowie den Trend anschauen, was	
	sind gesellschaftliche Entwicklungen?	
	Ältere Bevölkerung teilweise von Digitalisierung	
	aufgrund fehlender digitaler Kompetenzen	
00.03.30 00.03.50	ausgeschlossen	
00:02:39 – 00:02:59	 Unterstützung für das Erlernen digitaler 	
	Kompetenzen wird von den älteren Personen	
	gewünscht	

00:03:20	 Nach der Idee folgt die Auskonzipierung und Entwicklung und das Projekt wird eingereicht, um finanzielle Unterstützung zu bekommen
	Weitere Schritte: Zusammenstellung eines
00:03:47 – 00:04:05	Projektteams, Kommunikation,
	Marketingaktivitäten, Projektcontrolling
	Erste Rolle der Gemeinden hinsichtlich Ausbau
	digitaler Kompetenzen: Ermöglicher
00:04:44 – 00:04:52	Zur Verfügung stellen von Ressourcen (finanziell
	und materiell), je nach Kapazität
	Zweite Rolle der Gemeinden hinsichtlich Ausbau
	digitaler Kompetenzen: Multiplikatoren
	Gemeinde ist eine vertrauensweckende Instanz
00:05:11 – 00:05:49	innerhalb der Bevölkerung
	Digitalisierung ist sensibles, schwieriges Thema
	Gemeinde als "Tor-Opener"
	Dritte Rolle der Gemeinden hinsichtlich Ausbau
	digitaler Kompetenzen: Vermarktung
	Nutzung von Gemeinde-Medien und Streuung
00:06:11- 00:06:34	durch die Gemeinde an die Zielgruppe
	Gemeinde-Medien werden stark von Zielgruppe
	ältere Personen gelesen
	Kleinere Rolle der Gemeinden hinsichtlich
00:06:41	Ausbau digitaler Kompetenzen: politisches
	Transportieren
	Bewusstsein für Thema Ausbau digitale
	Kompetenzen ist prinzipiell bei Gemeinden nicht
	vorhanden
00:07:53 – 00:08:20	Digitalisierung zählt nicht zu Aufgabenfeld einer
	Gemeinde
	Gemeinden sind lediglich für Infrastruktur
	(Glasfaser) zuständig
	Gemeinden sollten nicht belastet werden
	Kompetenzen von Gemeinden reichen nicht für
	Ausbau digitaler Kompetenzen aus
00.00.40.00.00.00	Kompetenzen für den Ausbau digitaler
00:08:49 – 00:09:03	Kompetenzen liegen bei Bildungseinrichtungen,
	Bibliotheken, Volkshochschulen und über
	Bildungswerke oder Sozial-Projekte
	Gemeinden sollten involviert werden

00:10:21 – 00:10:29	Gemeinden werden dahingehend unterstützt, dass komplette Organisation und Umsetzung die Inhaltgeber übernehmen	
00:10:52 – 00:11:01	Gemeinde ist nicht zuständig, ihr Netzwerk zur Verfügung zu stellen	
00:11:26	Bildungseinrichtungen, Organisationen sollen auf Gemeinden zugehen	
00:11:34	Wichtige Fragen: Wie vermarkte ich Plattform? Wie bringe ich Plattform an die Gemeinden?	
00:12:43	 Gemeinden sind hinsichtlich Thema Ausbau digitaler Kompetenzen offen, wenn sie aktiv darauf angesprochen werden 	
00:13:24 – 00:13:44	 Angebot muss für Gemeinden klar beschrieben werden Aufgaben, die Gemeinde übernehmen muss, sollten ganz klar beschrieben werden 	
00:15:07	Kompetenzaufbau darf für Gemeinden nicht zu groß werden	
00:16:11 – 00:16:21	 Aufgabengebiet der Gemeinden beinhaltet nicht den Ausbau digitaler Kompetenzen Zeitaufwand für zusätzliche Aufgabengebiete bei Gemeinden zu groß 	
00:16:50 – 00:17:06	Gemeinden müssten aktiv auf Angebote aufmerksam gemachten werden und können erst dann unterstützen	
00:17:57 – 00:18:07	 Plattform für Organisationen/Initiativen wäre interessant mit Fragestellungen, wie: Was brauchen Organisationen, um leichter an Gemeinden heranzukommen? 	

M. Phase 3: Searching for Themes

Geclusterte Codes	Themes
Experteninterview 1 Ländliche Gemeinde in Niederösterreich Funktion/Rolle der befragten Person: Verwaltung	
 Digitale Kompetenz ist wichtiges, zu wenig behandeltes Thema Zielgruppe "ältere Personen" und deren Bedürfnisse sind als solches wichtige Themen 	Bewusstseinssteigerung für die Thematik "Steigerung digitaler Kompetenzen"
 Nutzen der Zusatz-Arbeit für eine Gemeinde aufzeigen Motivation für die Unterstützung beim Ausbau digitaler Kompetenzen aufgrund von Veranstaltung im Zuge des Tags der älteren Generation Unterstützungsmöglichkeiten für eine Gemeinde hinsichtlich Einführung von Angeboten zur Steigerung digitaler Kompetenz werden primär nicht gebraucht Zusatzinformationen sind per se immer hilfreich Plattform bietet Möglichkeit zum Nachschauen 	Motivationssteigerung für das Aktivwerden in der Thematik "Steigerung digitaler Kompetenzen"
 Allgemein unzureichende digitale Kompetenzen bei älteren Personen Individuellen Zustand digitaler Kompetenzen berücksichtigen Digitale Kompetenzen vereinzelt bei älteren Personen vorhanden Unzureichende Möglichkeiten digitale Kompetenzen zu erlangen/erhöhen Bedürfnisabfrage der Bürger in einer 	Digitale Kompetenzen bei älteren Personen
Gemeinde als Start von Initiativen/Projekte Bedürfnisabfrage der Bürger in der Gemeinde zur Fragestellung "Was können	Relevanz einer Bedürfnisabfrage

	wir als Gemeinde tun, um dein Leben	
	lebenswerter zu machen?"	
•	Wunsch und Bedürfnisse innerhalb der	
	Gemeinde identifizieren und darauf	
	eingehen	
•	Bedürfnisse der Zielgruppe abfragen und	
	darauf eingehen	
•	Zeitmanagement und	
	Aufgabenstrukturierung sind für die	
	Ausarbeitung eines Projektes relevant und	
	können Einführung/Ablauf erleichtern	
•	Relevanz einer guten Vernetzung	Zu beachtende
	innerhalb der Gemeinde für die	Rahmenbedingungen
	Umsetzung und Implementierung digitaler	
	Projekte/Initiativen	
•	Fehlendes digitales Equipment bei älteren	
	Personen	
•	Behandlung der Thematik	
	Angst/Hemmschwelle vor Technik und	
	Digitalisierung als erster Schritt für eine	
	Gemeinde	
•	Beispiel für den Ausbau digitaler	
	Kompetenzen älterer Personen:	
	Computerkurs	
•	Idee: Zeitbörse für ältere Personen und	Wichtige, zu behandelnde
	Gemeinde mit dem Ansatz "Suche –	Themen/Ideen
	Finde" und Netzwerkgedanken	
•	Angabe von Betreuungszeiten,	
	Betreuungspersonen	
•	Unterstützung pflegender Angehöriger	
•	"Will – Haben – Börse" (sowohl personell	
	als auch auf Ressourcen bezogen), auf	
	die Gemeinde zurückgreifen kann	
In dies	sem Experteninterview sind keine Inhalte	Art und Weise der
zu die:	sem Theme erhoben worden.	Vermittlung von Inhalten
•	Gemeinde als koordinative Funktion bei	Aufaabaa uad
	Projekten/Initiativen	Aufgaben und
•	Organisation des Computerkurs wird von	Unterstützungsfunktion
	Gemeinde übernommen	einer Gemeinde

•	Marketinginstrumente (Flyer etc.) werden	
	von Gemeinde erstellt	
•	Gemeinde stellt Räumlichkeiten zur	
	Verfügung (z.B. für Computerkurs)	
•	Gemeinde überlegt sich	
	Rahmenbedingungen (z.B. wie oft und wie	
	lang findet Kurs zu welchem Preis statt)	
•	Gemeinde als Kapitalgeber	
•	Gemeinde als Zuständigkeit für	
	Infrastruktur (z.B. Glasfaser)	
•	Zusammenarbeit in Ausarbeitung des	
	Computerkurs mit inhaltlichen Experten	
•	Konzepte werden durch Zusammenarbeit	Aufgaben und
	mit Netzwerk ausgearbeitet	Unterstützungsfunktion
•	Equipment (z.B. Computer) wird nicht	anderer Parteien
	durch Gemeinde bereitgestellt	anderer Fartelen
•	Inhalt für Marketingmaßnahmen (Flyer)	
	wird vom Experten erarbeitet	
•	Relevanz eines digitalen	Personelle Ressourcen für
	Ansprechpartners/unterstützenden Person	die Einführung von
	für ältere Personen	Unterstützungsangeboten
Exper	teninterview 2	
Städtis	sche Gemeinde in Niederösterreich	
Funkti	on/Rolle der befragten Person: Politisch	
	Digitale Kompetenzen im ländlichen	
	Bereich für soziale Integration wichtig	
	Vereinsamung durch fehlende digitale	Bewusstseinssteigerung
	Kompetenzen	für die Thematik
	Älteren Personen wird für den Ausbau	"Steigerung digitaler
		Kompetenzen"
	digitaler Kompetenzen zu wenig	
	Unterstützung im Allgemeinen angeboten	
•	Thema "Ausbau digitaler Kompetenzen"	
	kein relevantes Thema für Gemeinde,	Motivationssteigerung für
	sondern für den Bund	das Aktivwerden in der
•	Steigerung digitaler Kompetenzen nicht	Thematik "Steigerung
	Aufgabe einer Gemeinde	digitaler Kompetenzen"
•	Unterstützungsmöglichkeiten braucht es	
	nicht, da nicht Aufgabe der Gemeinden	

•	Digitale Kompetenzen der älteren Bevölkerung schwer einzuschätzen, da diese (von Gemeinden) nicht abgefragt werden Ältere erwerbstätige Personen sind häufig digital affin, auch durch Corona Digitale Kompetenzen bei älteren Personen im städtischen Bereich tendenziell nicht schlecht Digitale Kompetenzen im ländlichen Bereich eher weniger vorhanden Unterstützungsangebot im ländlichen Bereich weniger vorhanden	Digitale Kompetenzen bei älteren Personen
•	Status der digitalen Kompetenz wird von	Relevanz einer
	Gemeinde nicht abgefragt	Bedürfnisabfrage
•	Barrierefreiheit als Voraussetzung für Aufruf einer Webseite Gleichheitsgrundsatz zwischen Gemeinden innerhalb eines Bundeslands sehr wichtig Zielgruppe "ältere Personen" sollte definiert werden Digitalisierung (z.B. digitale Formulare) ist Standard, der vom Land und Bund vorgegeben ist Zusätzliche Herausforderungen einer Gemeinde: IT-Security, Anforderungen von IT im öffentlichen Bereich, technische Barrieren	Zu beachtende Rahmenbedingungen
•	Für Gemeinden ist ein Portal hilfreich, das	Wichtige, zu behandelnde
	zeigt, welche Initiativen es gibt	Themen/Ideen
In diesem Experteninterview sind keine Inhalte		Art und Weise der
zu diesem Theme erhoben worden.		Vermittlung von Inhalten
•	Gemeinde unterstützt nicht im Gesamten beim Ausbau digitaler Kompetenzen Einzelne politische Vertreter, die Vereine beim Ausbau digitaler Kompetenzen unterstützen	Aufgaben und Unterstützungsfunktion einer Gemeinde

 Gemeinde kann aufgrund fehlend räumlicher und personeller Resso (PCs, etc.) nicht unterstützen Gemeinde nicht zuständig für Unterstützungs-Angebot Gemeinde als Finanzgeber Gemeinde als Multiplikator Gemeinde in der Rolle des Finanz unterstützer Gemeinde für Subvention 	ourcen
 Gemeinden können dann als unterstützende Funktion dienen Angebote für die Unterstützung m 	it
 digitalen Technologien wird teilwe Vereine (z.B. Sportvereine) gegek Andere Akteure, wie Wirtschaftska Landesregierung, Land, die hinsid Steigerung digitaler Kompetenzer anbieten 	ise über oen Aufgaben und ammer, Unterstützungsfunktion chtlich anderer Parteien
 Ansprechperson als Unterstützung Umgang mit Webseite 	personelle Ressourcen für die Einführung von Unterstützungsangeboten
Experteninterview 3 Funktion/Rolle der befragten Person: Pfle	
 Video-Kommunikation für ältere Pals Chance Digitalisierung als Werkzeug, um Menschen miteinander zu verbind Möglichkeiten zu schaffen, um Wisehr schnell zu lukrieren 	Bewusstseinssteigerung für die Thematik len und "Steigerung digitaler
 Relevanz Standortvorteil für Gemum Abzug in städtische Gebiete zvermeiden Wenn sich Gemeinden mit Themadigitaler Kompetenzen beschäftig bietet ihnen das auch einen gewis Vorteil, sie können damit "werben Für Gemeinden ist es wichtig/attra 	Motivationssteigerung für das Aktivwerden in der Thematik "Steigerung digitaler Kompetenzen"
erwerbstätige Personen in Gemei	nde zu

	halten → Gemeinden aufzeigen, dass es auch attraktiv ist, die ältere Bevölkerung in der Gemeinde zu halten	
•	Relevanz digitaler Kompetenzen bei	Digitale Kompetenzen bei
	älteren Personen individuell	älteren Personen
•	Wichtiger Schritt ist, welche Bedürfnisse	Relevanz einer
	die Zielgruppe ältere Personen haben	Bedürfnisabfrage
•	Unterschiedliche Rahmenbedingungen bezüglich Digitalisierung in ländlichen und städtischen Gemeinden Der älteren Bevölkerung darf nicht mit Angeboten gezeigt werden, sie müssen nun digital affin werden – "digitaler Zwang"/"digitale Ausgrenzung" Relevanz der Eigenverantwortung beim Ausbau digitaler Kompetenzen Digitale Angebote, wie Infrastruktur muss immer freiwillig sein Barrierefreiheit von Webseiten für ältere	Zu beachtende Rahmenbedingungen
	Personen beachten	
•	Gemeinden müssen der älteren Bevölkerung erklären, was der Vorteil an digitalen Kompetenzen ist Gemeinden aufzeigen, wie sie mit älteren Bevölkerung umgehen, die digitale Kompetenzen nicht ausbauen möchten (digitale Ausgrenzung vermeiden) Gemeinden müssen Vorteile des Ausbaus digitaler Kompetenzen für die Verbesserung der Lebensqualität der Zielgruppe aufzeigen	Wichtige, zu behandelnde Themen/Ideen
•	Gemeinden vermitteln, wie sie an Menschen herangehen (Einfühlungsvermögen), die noch keinerlei/wenig Berührungspunkte mit Digitalisierung haben Wenn Gemeinden etwas anbieten, das auch mal mit der Zielgruppe durchtesten, auf Verständlichkeit prüfen Wortlaut an Zielgruppe anpassen	Art und Weise der Vermittlung von Inhalten

		<u> </u>
•	Begrifflichkeiten müssen erklärt werden	
	(Beispiel: Glasfaserkabel)	
•	Gemeinde muss Einfühlungsvermögen	
	berücksichtigen	
		Aufgaben und
Gemeinde als Sponsor		Unterstützungsfunktion
		einer Gemeinde
In diesem Experteninterview sind keine Inhalte zu diesem Theme erhoben worden.		Aufgaben und
		Unterstützungsfunktion
		anderer Parteien
In dias	som Evportonintonviow sind kojno Inhalto	Personelle Ressourcen für
	sem Experteninterview sind keine Inhalte sem Theme erhoben worden.	die Einführung von
Zu die	sem meme emoben worden.	Unterstützungsangeboten
Exper	teninterview 4	
Funkti	on/Rolle der befragten Person: Geschäftsfüh	rung eines Vereins, der sich
mit Ge	sundheitsförderung für ältere Personen besc	häftigt
•	Ältere Bevölkerung teilweise von	
	Digitalisierung aufgrund fehlender digitaler	
	Kompetenzen ausgeschlossen	
•	Unterstützung für das Erlernen digitaler	
	Kompetenzen wird von den älteren	Bewusstseinssteigerung
	Personen gewünscht	für die Thematik
	· ·	"Steigerung digitaler
	Digitalisierung ist sensibles, schwieriges Thema	Kompetenzen"
	Bewusstsein für Thema Ausbau digitale	
	Kompetenzen ist prinzipiell bei Gemeinden nicht vorhanden	
	Gemeinden nicht vorhanden Gemeinden sollten nicht belastet werden	
_	Gemeinden sind hinsichtlich Thema	
•		
	Ausbau digitaler Kompetenzen offen,	
	wenn sie aktiv darauf angesprochen	Motivationactaiganung für
_	werden	Motivationssteigerung für das Aktivwerden in der
•	Angebot muss für Gemeinden klar	
	beschrieben werden	Thematik "Steigerung
•	Aufgaben, die Gemeinde übernehmen	digitaler Kompetenzen"
	muss, sollten ganz klar beschrieben	
	werden	
•	Kompetenzaufbau darf für Gemeinden	
1	nicht zu groß werden	

•	Aufgabengebiet der Gemeinden beinhaltet	
	nicht den Ausbau digitaler Kompetenzen	
•	Zeitaufwand für zusätzliche	
	Aufgabengebiete bei Gemeinden zu groß	
•	Gemeinden müssten aktiv auf Angebote	
	aufmerksam gemachten werden und	
	können erst dann unterstützen	
In diesem Experteninterview sind keine Inhalte		Digitale Kompetenzen bei
zu die	sem Theme erhoben worden.	älteren Personen
•	Wichtig für den Start eines Projektes:	
	Zielgruppe befragen, Bedürfnisse der	
	Zielgruppe herausfinden sowie den Trend	Relevanz einer
	anschauen, was sind gesellschaftliche	Bedürfnisabfrage
	Entwicklungen?	
•	Kompetenzen von Gemeinden reichen	
	nicht für Ausbau digitaler Kompetenzen	
	aus	
•	Nach der Idee folgt die Auskonzipierung	
	und Entwicklung und das Projekt wird	
	eingereicht, um finanzielle Unterstützung	Zu beachtende
	zu bekommen	Rahmenbedingungen
•	Weitere Schritte: Zusammenstellung eines	3. 3.
	Projektteams, Kommunikation,	
	Marketingaktivitäten, Projektcontrolling	
	Gemeinde ist eine vertrauensweckende	
	Instanz innerhalb der Bevölkerung	
•	Wichtige Fragen: Wie vermarkte ich	
	Plattform? Wie bringe ich Plattform an die	
	Gemeinden?	
	Plattform für Organisationen/Initiativen	Wichtige, zu behandelnde
	wäre interessant mit Fragestellungen, wie:	Themen/Ideen
	Was brauchen Organisationen, um	
	leichter an Gemeinden heranzukommen?	
	Nutzung von Gemeinde-Medien und	
	Streuung durch die Gemeinde an die	
	Zielgruppe	Art und Weise der
Gemeinde-Medien werden stark von	Vermittlung von Inhalten	
•		
1	Zielgruppe ältere Personen gelesen	

•	Erste Rolle der Gemeinden hinsichtlich		
	Ausbau digitaler Kompetenzen:		
	Ermöglicher		
•	Zur Verfügung stellen von Ressourcen		
	(finanziell und materiell), je nach Kapazität		
•	Zweite Rolle der Gemeinden hinsichtlich		
	Ausbau digitaler Kompetenzen:		
	Multiplikatoren		
•	Gemeinde als "Tor-Opener"		
•	Dritte Rolle der Gemeinden hinsichtlich	Aufgaben und Unterstützungsfunktion	
	Ausbau digitaler Kompetenzen:		
	Vermarktung	einer Gemeinde	
•	Kleinere Rolle der Gemeinden hinsichtlich		
	Ausbau digitaler Kompetenzen: politisches		
	Transportieren		
•	Digitalisierung zählt nicht zu Aufgabenfeld		
	einer Gemeinde		
•	Gemeinden sind lediglich für Infrastruktur		
	(Glasfaser) zuständig		
•	Gemeinden sollten involviert werden		
•	Gemeinde ist nicht zuständig, ihr		
	Netzwerk zur Verfügung zu stellen		
•	Kompetenzen für den Ausbau digitaler		
	Kompetenzen liegen bei		
	Bildungseinrichtungen, Bibliotheken,		
	Volkshochschulen und über		
	Bildungswerke oder Sozial-Projekte	Aufgaben und	
•	Gemeinden werden dahingehend	Unterstützungsfunktion	
	unterstützt, dass komplette Organisation	anderer Parteien	
	und Umsetzung die Inhaltgeber		
	übernehmen		
•	Bildungseinrichtungen, Organisationen		
	sollen auf Gemeinden zugehen		
In diesem Experteninterview sind keine Inhalte		Personelle Ressourcen für	
zu diesem Theme erhoben worden.		die Einführung von	
		Unterstützungsangeboten	