Young-elderly and digital services

Michael Råberg[1] and Hans Allmér[1]

[1] Linnaeus School of Business and Economics, Linnaeus University, Gröndalsv. 19, 39182 Kalmar, Sweden
{ Michael.raberg@lnu.se, Hans.allmer@lnu.se }

Abstract. In this paper we show what kind of services the group known as young-elderly (60-75 years old) in Sweden use on the Internet. To be able to develop more effective information systems (IS) we want to know more about the actual demands, needs and wants of the young-elderly target group. We will, through an explorative study conducted by three focus group interviews, show the importance of knowing behavioral factors when designing effective IS and setting up interactive virtual servicescapes. Our conclusions are that when developing IS and setting up virtual servicescapes on the Internet, it is not only necessary to know the customers' demands, needs and want, but also to create customer trust of the service provider and the services. In addition, it is also necessary to be able to develop support services that help the customers find what they want and allow them to customize the digital service interface. Together, this will minimize anxiety of the growing young-elderly target group.

Keywords: Information Systems (IS), Digital Services, Marketing, Trust, Digital Guiding, Digital Customization, Resistance, Servicescape, Young-elderly

1 Introduction

The group of elderly people is going through a major expansion in many countries all over the world. People are healthier, the age pyramid is changing rapidly as life expectancy increases and the group consisting of people over 60 years of age represents a larger portion of the total population. Some people can even expect to live past 100 years of age [1] [2].

We - the authors - work as lecturers in marketing and aim to discuss marketing from a marketer's point of view in combination with information systems (IS). With our skills based on studies and our long track-records as practitioners in marketing and business, we aim to analyze the group of people who are retired or will soon retire from work, with a focus on their relationship to IS and their response to what the digital service industry offers on the Internet today and tomorrow.

In this paper, and in a first paper [3] with focus groups, we argue that digital services can play an important role in addressing the above mentioned problems and therefore there is a need to understand the way in which the young-elderly group uses and behaves on the Internet as well as their usage of digital services on computers and mobile devices.

Age groups are changing over time but some previous studies have defined young-elderly as people from 60 to 75 years old and older-elderly as people over 75 years old [4] [5]. The group of young-elderly is growing in many countries all over the world. This creates challenges and opportunities for the society, their families and for the individuals themselves. One opportunity would be to make this group more active after retirement, making use of their lifetime experiences and knowledge and acknowledge them as a resource for society. This can be a way to decrease the gap between public service demands and public resources available in Sweden's existing system of finance [1] [6]. One way to activate this group is to match service resources with service demands in a more effective way with the help of technology and digital services in interactive virtual servicescapes [2] [7].

In this study we present the perceived barriers for the young-elderly to using services that exist on the Internet and their demands for such services today and in the future. In particular, we will cover the variables, trust and resistance, of the young-elderly, according to their opinions towards digital services. This paper will focus on the intersection between IS and Marketing, where the IS area will mainly focus on user need analysis as input to the system design process and Marketing will focus upon behavioral aspects of needs and wants with an emphasis on servicescape theory. It will be interesting to know more about whether or not marketing, with the help of servicescape theory, can provide better digital services in the eyes of the consumer. Both approaches have the same aim and should be coordinated. This study will give details and a deeper understanding about behavior, beliefs, demands and requirements in terms of digital services on the Internet now and in the future. We aim to highlight some valuable insights for Internet service providers in terms of their design and development processes. For example, how integration and interaction with the group of young-elderly can impact the creation, delivery and consumption of digital services.

1.1 Purpose of the Study

The purpose of this study is to explore (i) what kind of digital services the young-elderly are using on the Internet today, and also to describe (ii) how such digital services on the Internet could be designed to attract and involve the young-elderly group from a servicescape perspective. This study will be one in a series of steps to discover and learn more about specific requirements based on the demands and needs of the young-elderly user group, to identify and tackle barriers of usage, and to give input to digital services providers when developing new applications in close interaction with the service consumer.

1.2 Research Questions

Since the group of young-elderly in Sweden is growing both in size and importance we are curious about:

(i) How does the group of young-elderly utilize digital services?

(ii) What conditions are necessary in order to motivate young-elderly to use digital services?

1.3 Structure of this Paper

This paper will be structured as follows: Section 2: Background. Section 3: Literature Review. Section 4: Study and Method. Section 5: Findings. Section 6: Discussion. Section 7: Conclusions. Section 8: Future Research.

2 Background

People live longer and longer due to improved nutrition, sanitation, medical innovations, health care, education and economic wellbeing. The United Nations (UN), through its organization, the United Nations Population Fund (UNFPA), has studied ageing in the twenty-first century and states that in 1950 around 205 million people in the whole world were 60 years old or older. In 2012 that figure increased to 810 million people. The forecast indicates that the number will be 1 billion within 10 years and that figure will at least double by 2050 [2]. Between 2012 and 2050 it is predicted that the older population in Europe will grow from around 20% to 35% of the total population, in Asia from 10% to 25% and in Sweden from 18% to over 32% [1] [6].

Technology and digital services can overcome the disadvantages, isolation and marginalization experienced by many older persons. Technology can also create a sense of security in the home, facilitate health care, introduce new attractions and wellbeing into older people's lives and create greater access to information [2]. Technology can also make it possible for older people to continue to work later in life (e.g. telecommuting, which is working away from the workplace using technologies with Internet access). A study from New Zealand showed that the main motivations for older people to use the Internet were: communicating with others; building and maintaining relationships; shopping; and searching for information relating to goods, services, news and health. Of the Internet users, 87% also used e-mail on a frequent basis [8]. A huge percentage of older people often prefer to access information through traditional media, such as radio, television and newspapers [2] [9]. This is also manifested by the fact of that many older people have a lack of confidence or interest in new technology and digital services. Studies have also shown that poor or irrelevant design, as well as constraints such as lower literacy levels among older people can be barriers to trying and using new technologies [2] [10].

From our perspective, in the Internet era the group of young-elderly is at the intersection between people who are familiar with using digital services and those who have little or no experience in doing so. The habits that this group acquires will

stay with them as they continue to age and create the conditions for a higher quality of life.

While technology is already playing an increasing part in many older people's lives, it is highly probable that coming generations of older persons will be able to make even more use of technology [9].

3 Literature Review

In this section we present the literature review. We will start by presenting IS in general and continue with resistance and trust relating to user adoption of IS and finally we will end with marketing with an emphasis on servicescape and virtual services.

3.1 Information Systems (IS)

One standard definition of an IS is that it should been able to collect, process and distribute data. People, hardware, software and networks that are connected and related to each other are base components of an IS [11]. Even if Langefors' classical infological equation: I = i(D,S,t), where I = the information conveyed, i = the information process, D = the data, S = the preknowledge or frame reference of the information receiver, and t = the time required or available for the process, has been criticized for being too mechanic, it is still the starting point for focusing on the personal/social user perspective when designing and constructing IS [12]. This initiates the need for a user perspective and interaction in the design process and will influence the acceptance of new technology.

The social network around individuals is extremely important for its ability to influence the individual to try and test innovations and new technology [13]. This indicates that it is important both to study the individual as well as the network affecting the individual.

In a study of buying behavior on-line, Browne, Durrett and Wetherbe [14] point out that the Internet has not removed the need for face-to-face and voice-to-voice contact between people and that it has not reduced the importance of customer service before and after sales. The authors state that a problem with purchasing goods and services on-line is that technique lags technology. This means that business processes and individual behaviors change more slowly than the enabling and adopting technologies [14]. This problem is not new. With the Internet, technique is struggling to catch technology. The Internet requires process transformations that are both internal and external; internal processes of organizations that provide goods and service but also external processes of consumers called the consumption processes [15]. "A consumption process is a series of steps and tasks that people use to fulfill a need" [14, p.238]. The essence of that is that companies working within the information system industry need to understand and adopt the relevant consumption process to be able to provide effective services on the Internet [14].

3.2 Resistance

User resistance is one very important issue to be dealt with during the implementation of new information technology (IT) and IS applications. It has been widely covered in studies focusing on organizational implementation of IS. For example, several researchers have studied the impact of user acceptance of new technology in various TAM:s (Technology Acceptance Model) to be able to explain human personal behavior [16] [17].

Numerous studies demonstrate that user resistance originates from negative user assessments of the fairness of the exchange between their inputs and the outcomes of their interaction [18] [19].

Previous research has also shown that if the IS application could be flexible and meet the specific user at an individual level, it would be easier to develop the system and the interaction which will also influence future attributions [20]. Perceived threats in connection to the unwillingness to try new IS often corresponds to the negative assessments that users make of the system implementation [20]. Joshi [18] argues for an equity theory of resistance wherein individuals assess an IS implementation in terms of equity. Resistance arises from negative user perceptions of the fairness of the exchange between inputs and outcomes when using IS. Marakas and Hornik [19] mean that passive resistance is a result of threats that the individuals associate with the introduction of IS in their daily lives. They propose that individuals who are unwilling to adjust may enact "…overt cooperation and acceptance of the proposed system combined with covert resistance and likely sabotage of the implementation effort" [19, p.208]. Even if passive resistance is more covered when implementing IS in organizations, this knowledge could be transformed when creating digital services on the Internet.

In some studies, Davis [16] verified that perceived usefulness is highly connected to user acceptance and instrumental in decreasing user resistance and therefore should not be ignored by those involved in designing and developing successful IS.

3.3 Trust

Trust is a very complex aspect related to many different disciplines. Previously, many researchers have covered this aspect in, for example, social psychology [21], sociology [22], marketing [23] and in IS [24]. Many of them conclude that trust is essential in nearly all contexts of relational exchanges [24] [25].

In e-commerce, the physical-to-virtual transfer of commercial activity forces all of us to rethink the ways in which traditional rules for building trust and loyalty can be applied [20]. Rivard and Lapointe [20] maintain that it is important to establish the credibility of the message being sent as well as the source of that message. This means that trust is important in a servicescape since if there is a lack of trust the customers will reject the offered services. Papadopoulo et al. [24] discuss trust in e-commerce and they connect trust to relationship marketing and servicescape. Doney and Cannon´s [26] studies identified five trust-building processes; calculative, prediction, capability, intentionality, and transference, and Papadopoulou et al. [24] added credibility to that list. This was formed into a model for trust formation in

digital service applications and in e-commerce in virtual servicescapes. The three trust building processes in the model and adopted to the E-servicescape are:

- *Make a promise* means interactivity (e.g. interactive advertising with agents, messages rendering with real-time segmentation during interaction, messages exposures and customer responses occur in real-time and full interactive, personalized communication)
- *Enable a promise* includes neutrality (e.g. extensive search and recommendations driven by the customers, objective and neutral presentations, preview and experience of 3D virtual products, personalized dialogue and interaction with agents and orders being placed at same time and space with promise made)
- *Keep a promise* includes payments and delivery (e.g. online payments, online or physical delivery and after-sales service at time and space of purchase) [24].

To create a trustworthy electronic servicescape, Papadopoulou et al. [24] suggest that Web sites should be transformed to customer-centric, e-servicescapes offering a digital experience that can contribute to the development of an indelible relationship between the business and the customer. Trust can also be transformed through the customer's own network by recommendations from others. This will lead to the customer being open for trying the digital service encounter. Trust as a process over time increases customer loyalty as the customer engages in repeated interactions with promises being fulfilled within the servicescape [24]. "Each time a promise is made, enabled and kept, it is evaluated with the intentionality, the capability and the credibility process confirming the customer´s trusting beliefs in the business benevolence, competence and credibility. The level of trust is also related to the experience that the customer gains within the e-servicescape" [24, p.327]. Virtual digital services, including web avatars and agents made familiar with customer behavior and preferences through collected data, provide the customers with alternatives during their searches in accordance with previous experience, and suggest suitable service alternatives to enrich the customer experience. There are many technological challenges but also many opportunities to build up strong servicescapes for digital services [24]. Alter [27] has focused on the importance of treating customers as co-producers and that value for the customer, is coproduced by the provider and the customer together, rather than just obtaining customer requirements and thereby building the digital service application.

3.4 Marketing, Servicescapes and Virtual Services

Marketing has gone through some different stages during the years. One starting point from the theoretical side was with Kotler's [28] definition of *A Generic Concept of Marketing* where he sees marketing as the disciplined task of creating and offering values to others for the purpose of achieving a desired response [28]. As a result of that, he defined the marketer as a specialist in understanding human wants and values and knowing what it will take for someone to act [28]. This definition was refined by Kotler [29] when he added the *atmospheric* variable to the theory, meaning the effort to design buying environments to produce specific emotional effects on the buyer that

enhance his purchase probability [29]. Atmosphere is recognized through our senses. That led to the first theoretical approaches within sensory marketing. Achrol and Kotler [30] renewed their findings to include that in the digital third millennium "the growing impact of digization and virtual media considerably expand the scope and impact of sensory satisfactions" [30, p.50].

In service marketing Bitner [31] was one of the first to define the term servicescape in reference to the physical surroundings as fashioned by service organizations to facilitate the provision of service offerings to customers by different kinds of service providers. Her studies introduced the importance of viewing service marketing through an environmental psychological lens [32]. Ezeh and Harris [33] argue that the design of the servicescape is the major attribute in being able to set up effective service marketing operations. They have also proved in some studies that four variables are very essential for the creation of servicescapes. These four variables are:

- *Ambient conditions* which include music, aroma and cleanliness issues
- *Design factors* which deal with implicit communicators and furnishing
- *Staff behavior* includes the personalized factors connected to customer orientation and credibility
- *Staff image* includes personnel competence and physical attractiveness [33].

Most existing studies have been made based on tangible features for example, buildings and decorations, but also intangible features for example, temperature, color, scent and music for physical stores.

In a study of health care services, Lee [34] showed that to create a servicescape that can satisfy customers' needs for comfort, convenience, safety, security, privacy and support, healthcare providers need to understand which servicescape features impact customer satisfaction and behavior and how. Edvardsson et al. [35] extended previous servicecape models to also focus on the technology aspect of service interactions, meaning that technology can play an important part in both physical and digital service environments. He also introduced a new term relating to servicescapes, experience room, by which he means a place allowing representations of simulated service experiences.

Grönroos [36] and other researchers have pointed out the importance of customer participation and interaction in the creation of the service. This is an important ingredient in the process of creating value for the customer. To understand the nature of service creation it is important to understand two important parts of service. The first is, activities, and the second is, function, and they have to be shaped in a way that attracts and adds value to the user [37].

Goodwin [38] showed that service personalization is very strongly connected to the perception of functional quality. Customer uniqueness and personalization means that the customer if offered many flexible choices to develop their own customized service from a service provider. The customer gains the best possible form of service offer according to his or her needs and demands [39]. In creating services that are perceived as unique for every customer the service itself must be designed and delivered in a variety of ways, at least one of which will meet the needs and demands of the specific customer [38].

Studies have verified the importance of involving and observing your service

customers during the innovation process in order to develop new services. They emphasize that understanding the underlying reasons beyond behavior is important because it helps to better identify what can be done to improve the current use experience or to remove barriers of use [7] [40] and claim that virtual reality technologies can effectively be useful to shape an e-commerce environment. "Virtual services and virtual worlds are often described as three-dimensional, voice enabled, social environments that include a spatial layout, aesthetics and ambient conditions. In other words, all of the conditions needed to provide customers with social networking and servicescape opportunities" [32, p.736]. In a study, Edvardsson et al. [35] showed that the service providers in their work with the servicescape have to integrate the customer and move from creating for, to creating with and creating by the user. By integrating the customer it is thereby possible to strengthen trust and overcome resistance of the service and the servicescape.

4 Study and Method

In this section we describe our study and method. This study is the second in row of studies covering the use of digital services by the target group. The first study had a more quantitative approach [35]. Based on that study we realized that we needed to have direct access to the respondents in order to know more about them, to be able to ask more questions and to discuss issues relating to digital services. In this, the second study, three focus group interviews were performed with three different groups of people fitting into the young-elderly target group. The groups are anonymous out of consideration for the respondents, and are labeled; Group A, Group B and Group C. The studies were conducted in order, starting with Group A and ending with Group C, during a three month time period. The people in the focus groups were members of three different networks. The members of the groups had, as far as we know, no connection to members of the other groups. The first group was mostly retired people who bowl together weekly. We got in contact with the group through a member who was able to give us access. The second and third groups contained two different groups of retired people who were friends that played boule together. The reason for focusing on these groups was to find young-elderly who are still physically and mentally active. We are aware that this way of selecting respondents has its limitations as the number of respondents is small and not all young-elderly are active people. Therefore these three groups cannot be seen as representative for all young-elderly. On the other hand there is an advantage to having a personal connection to the groups as they are more willing to answer the questions and do so in an honest way. Some of them made it very clear that they never answer questionnaires otherwise.

We chose focus group interviews as a means for the study in order to get the information we needed to answer the research questions and to gain a greater understanding. The intention was to understand the target group's opinions of digital services on the Internet and to compare the findings with other studies and statements from the literature. The questions were open, with a character of discussions, and extra questions were added, if necessary, since we wanted to build upon the answers to get an even deeper knowledge and understanding about the specific subject. Before we started the interviews, the respondents were advised that they could withdraw their

consent and cease participation at any time. The respondents were also advised of the purpose of the study and assured that their responses would be treated confidentially. The approach was mainly qualitative in this explorative study and we wanted to build on learning-by-doing which is close to the grounded theory methodology [41] and research techniques proposed by Checkland and Holwell [42] as especially suitable for research about information technology and information systems. This approach using open-ended dialogues instead of structured checklist can be an advantage in a learning-by-doing approach since it will not reduce and humiliate the interviewee [43].

While working with research it is of great importance that everything is done to reach a high level of reliability and validity. Reliability is about the trust and confidence in the research process and how it is designed and carried out. If you repeat research studies over time they should generate the same results. Validity concentrates on that the researcher is measuring what is intended to be measured [41] [44] [45]. We have spoken with young-elderly people in our families, among our friends and in our networks and have also followed recent media discussions. Our credibility was granted by our good relationship leading to high participation and small internal fall-off.

Each form of data is useful for both verification and generation of theory, whatever the primacy of emphasis [41]. We also recorded all of group discussions, and we had the possibility follow up after the discussion to clarify issues covered during the focus group discussions. These actions helped us validate our findings and also make it more reliable and more trustworthy even if the sample is quite small. When it comes to generalization we refer to Glaser and Strauss [41] and Gummesson [44] who state that too much attention is paid to generalization and that generalization is possible even from single events. But we are also very much aware of the small number of respondents and that our means of selection has its limitations and therefore it is important to take caution with generalization. Much more research has to be performed in order to make the results valid and reliable for the entire group of young-elderly. The results from our study are only representative for these specific groups of young-elderly.

This study, the second study in a row of our research storyline, will be followed by a larger quantitative and qualitative study which will probably lead to a TAM study and some evaluation studies in the end.

3.1 Brief Description of the Groups

Group A was a focus group of 8 people, Group B was a focus group of 6 people and Group C was a focus group of 8 people all retired but active. In total the groups consisted of 50% each men and women, who have different educational and occupational backgrounds. All the groups consisted of both people living in towns as well as in the countryside. The groups were also geographically separated from each other.

3.2 Question Areas

In Group A, the questions concentrated on: the background data of the respondents (e.g. gender, marital, status, previous occupation, educational background); the need and actual usage of services according to the young-elderly, with an emphasis on digital services on the internet today (e.g. we presented services such as health related services, financial services, travelling services, and more). We also asked questions relating to estimated future usage of different kinds of services (e.g. which kind of services they are lacking and what services they could think of using in the future). There were also questions regarding services they could take active part in and/or share information and knowledge about (e.g. if they share information on social medias such as Facebook, Twitter or other social networks).

The question areas in Group B were based on the results from the previous group and more focused on why the respondents do not use different services on the Internet and why they do not share information and knowledge with other people (e.g. what is holding them back in using digital services and what are the obstacles to overcome in order to, if possible, get them to share information on Internet, not just search for information).

Group C's question areas focused on the previous studies and concentrated on how to overcome user resistance, creating trust and to attenuate anxiety of using digital services on the Internet (e.g. why they don't try things before they say no to using services and what they believe could make them try new services).

In Figure 1, we illustrate the main question areas according to the different focus groups and the step-by-step process of finding out more about the behavior in our young-elderly groups.

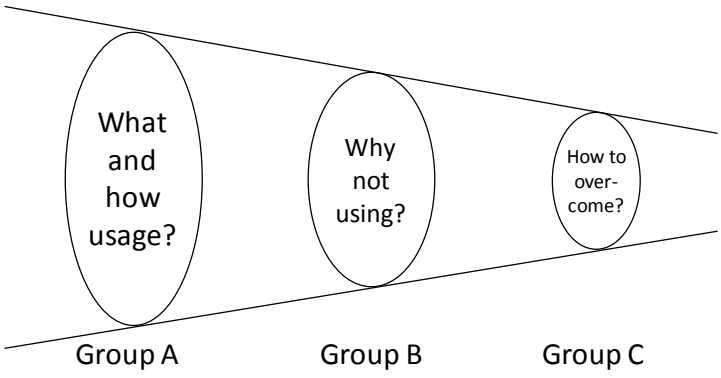

Fig. 1. Question areas for the selected focus groups

4.2 Data Analysis

All of the focus group interviews were recorded and we saved the material on our computers. Right after the interviews we listened through the recordings a couple of times and wrote down the discussions, answers and comments. Thereafter we counted

all the answers together and highlighted the issues that were intensively discussed and things that were brought up by many respondents.

5 Findings

The results from the interview with focus Group A, showed that the group uses some Internet services frequently and that they all had access to the Internet. They mainly used the Internet for; i) *searching for information* and very few shared information, knowledge and/or opinions. They comment that in some cases they ii) *were forced into using services* on the Internet (e.g. bank services, healthcare services and communication with organizations and the authorities). All of the respondents mentioned bank services in that many banks are closing their physical offices, decreasing opening hours and personal services, increasing the costs for services in bank offices and more, all of which are forcing customers to use Internet services whether they want to or not. There were; iii) *no variances in opinions based on variables such as gender, age (within the young-elderly group), educational background and previous profession*. Some comments from the respondents were:

> "- To share things and to always search for things on the Internet is not normal for our generation. It is for the younger generation."
> "- There are so many things out there and it is so difficult to find things that you are really looking for. We often listen, respond and react to recommendations from our family and friends."

The results thrilled us to move on to focus Group B where the focus emphasized why they do not utilize services available through the Internet today. The results from the focus Group B interview showed that the target group was extremely concerned about having a; i) *personal connection* with the people taking an active part in services on the Internet (e.g. when discussing health issues they want to see and have direct communication with the expert/doctor and also, if necessary, a history with that person). They felt that they; ii) *need to feel confident in who are they interacting with*, what kind of knowledge that person has, what kind of previous track record that person has and what will happen with the information they are willing to share and discuss? They also felt; iii) *worried about entering new services*, as a whole, even if it was just for trial reasons. As one respondent said:

> "- I need the personal interaction where it can be a give and take. We belong to a generation that is accustomed to meeting face-to-face and where a handshake is real one, not just a digital one."

Based on previous findings we wanted to know more about how to overcome the perceived problems, lack of trust and resistance to using digital services. This could be connected to earlier studies in which digital service providers in their work with the servicescape have to integrate the customer and move from creating for, to creating with and creating by the user. By integrating the customer it is thereby possible to strengthen the trust and overcome resistance of the service and the

servicescape. This can be achieved, for example, by treating the customers as coproducers so that value (perceived higher) for the customer, is coproduced by the provider and the customer together [35] [27]. This is what we want to know more about. With the third and final focus Group C, we concentrated the questions around why they felt anxiety in trying digital services and in sharing information, knowledge and opinions on digital service applications and social media. We found that it was three things that concerned the young-elderly relating to previous results. First, they indicate that they need to i) *feel secure*. Secure that their data, identity, username, password, credit card number, comments and knowledge are not abused and/or hijacked in any way. Secure that they are communicating with the right person. Secure about that person's good intentions. Second, they need ii) *personal touch and guidance* about digital services. Personal touch means recommendations from others they know, actual people to contact before using the service or to help them find the right kind of service for them. One of the people in the group said:

> "- I want to have, if not a real person, online, at least a guide helping me to find what I am looking for and what I really need. Like the service you could find online when you book your car service on the Volvo site, Volvo 2.0, and you get additional advice to update your car, the car service, the car history and financial issues according to your specific need and usage with the help of a digital person."

Third, they think iii) *some service applications are so general* and offer too many options which only complicates things. Therefore they want to have the ability to decrease the number of options to just those alternatives that they really want. They want to iv) *customize the service options* through interaction with the service provider. One person in the group commented about Facebook:

> "- There are so many options available that I have problems really reading the small text blocks and things not relevant for me are popping up the whole time. I would like to have much fewer options but larger and clearer text and buttons."

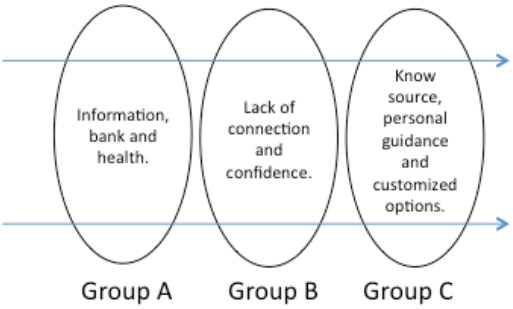

Fig. 2. Results from the focus groups

All the respondents felt more or less the same in terms of the reasons why they do not use some digital services and why they find it irrelevant for them to share knowledge, information and opinions on the Internet with others. But, even if the answers point in the same direction we are not claiming that the results speak for all young-elderly people. We want to state that the results only speak for these specific groups.

6 Discussion

The young-elderly group consists of Internet users who have a lot of knowledge and experiences. It takes a lot to get them interested in digital services as they are a group that prefers personal contacts and face-to-face meetings. On the Internet there are many IS designed and launched to attract and add value to the users. During our study we have seen possible patterns which indicate that when designing IS the young-elderly, the service providers lack information about that target group. The young-elderly group is interesting for the IS industry as it is a rapidly growing group and they are becoming more and more active since the age pyramid is shifting upwards.

Our study shows that all respondents in our three focus groups have their own computer, smartphone or tablet and they have access to the Internet and use it nearly every day. This shows that the respondents in our groups are a very active group and are have a higher rate of Internet use than the average person, according to national investigations of the Swedish inhabitants' relationship to IT and Internet [2] [9]. The young-elderly mostly use the Internet to search for information and for basic communication services such as e-mail, some social medias, reading news, making reservations and utilizing banking and financial services. In our research we have identified issues as to why the young-elderly group does not take advantage of the present services available on Internet today. Very few of the respondents use interactive services frequently. Some of them were not even interested in trying new services to see if they might be of interest to them.

The young-elderly group belongs to a generation for which technology and the Internet are not a natural part of everyday life. They are comfortable with traditional service supply and are used to dealing with their demands and needs through traditional service providers and have less interest in digital services on the Internet [9] [35]. The idea that the group feels that digital services and opportunities are not always relevant for them indicates that IS have perhaps been too focused on technology issues rather than on real user demand. This has been recognized in previous research covering design issues in developing IS [42] [11] [12] [13] [14] [15] [20].

The differences in what existing digital services actually present and the perceived demand and needs from the target group is also manifested by the fact that the target group has difficulty in seeing how using digital services, instead of more traditional service providers, is of any great benefit to them. They also name security issues as one large obstacle and want to see easier systems and proof of the service provider track record in order to overcome their anxiety. These reactions are also in line with user resistance and a lack of trust for the digital service provider. Issues of resistance and trust have been covered by many previous studies [16] [17] [18] [19] [20] [21]

[22] [23] [24] [26] and they are often a result little or no involvement or interaction between supplier and user. This has been recognized by some researchers as proof of bad servicescapes [28] [29] [30] [37] [38].

Therefore we suggest that the service providers work together with potential users of digital service applications from the young-elderly group in the development of new service applications in accordance with what the users want and need. When developing digital servicescapes the IS designers should consider the requirements and wants of the target group. Besides demands and needs, service providers need to add value and to build up trust and customer loyalty over time. In addition, they need to be trustworthy so that the potential users start using the services and overcome their resistance to interact in a digital servicescape and to share knowledge, information and opinions [16] [17] [24] [14] [31] [32] [33] [34] [35] [36] [37]. From a marketing perspective the customer meets a servicescape when they are using digital services on the Internet regardless if they do so on a computer or through any kind of mobile device.

When designers of servicescapes develop new IS they want them to be as attractive as possible. To be able to deliver attractive services they also need to deliver value for the user and the customer. That value can come from helping the customer to overcome user resistance with for example, the help of virtual services, such as avatars and agents, meaning that the customer starts using the service [7] [24] [25] [38] [40]. Another important issue is to customize the interface between user and service provider, letting the customer have their own personalized service layout to fulfill their needs, wants and demands but also creating a feeling of a more personalized interaction and being able to overcome resistance [32] [35] [38]. The service providers and the servicescapes need trust with low resistance, guidance and customization to attract the young-elderly group but according to our findings very few have been successful enough.

7 Conclusion

In this paper we have shown that service encounters and Internet software companies have to consider the special requirements of the expanding young-elderly target group. They have special needs, wants and demands, all of which must be considered in order to diminish the perceived anxiety and to build up trust of service providers. In focus has been overcoming the resistance of trying digital services, sharing information and knowledge with others and building up effective virtual servicescapes in which the users are involved in the design and development of the service and interact when consuming or using the service.

According to the results presented in the discussion section, including findings and theories, we can put a special focus upon three issues of importance:

- *Servicescape*, the virtual interface on technical devices as computers and mobile devices
- *Trust and resistance*, who is responsible for and stands behind the IS
- *Guidance and customization*, handling the interface between users or providers of IS and users.

For this young-elderly group, trust, guidance and customization with regards to IS in the servicescape, are very important. Society needs to prepare for the economic pressure that the welfare system will face when the older age group increases in size and the financial system is stressed. Service based IS are therefore of great importance for society, as well for individuals, giving them opportunities for cost-effective solutions and the possibility to share knowledge, information and opinions. It is therefore of the utmost importance that IS are designed in a way that attracts and meet the demands and needs of the young-elderly target group. How this will differ from prevailing IS design standards will be one of the aims of our coming studies.

The final conclusion of this paper is that when designing new IS the service provider has to consider marketing issues according to customer demands, needs and values. They also need to know more about their target group to be able to customize the services and guide them to start testing and using the services in order to overcome user resistance and to gain the trust of the growing group of young-elderly.

8 Future research

In this paper we have shown that it is the underlying issues related to trust and user resistance which prevent many in the young-elderly group from participating in digital social networks and communities, from using available information and from sharing experiences and knowledge on the Internet. This indicates that there is disparity between what the target group of young-elderly demand and need, and the actual digital services provided. This needs to be further studied and verified in future research.

We would like to propose more focused research of the young-elderly group with a focus on how to build up trust and to overcome resistance to digital services and servicescapes on the Internet.

Acknowledgments. The authors would like to thank Professor Christer Carlsson, IAMSR, Åbo Akademi University, Finland, Professor Bertil Hultén, Dr. Leif Marcusson, Dr. Siw Lundquist, Dr. Leif Rytting and Lecturer John Jeansson for insightful and helpful comments and support on this paper. We would also like to thank the respondents for their kindly help.

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