

Perceived Attraction of Online Communities among Elderly People

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Abstract — Amount of elderly people that visit online communities is constantly growing. However, there is a research gap considering elderly people as Internet users and online community members. Therefore, in this paper we scrutinized elderly people's perceptions of factors that encourage them to join online communities and, on the other hand, of factors preventing them from joining the communities. The empirical data was gathered by both posing questions and linking a web questionnaire in discussion forums aimed for elderly people.

The study at hand seems to verify the existence of the attraction factors identified in earlier studies. On the other hand, the study does not seem to support the suggestion that elderly people need any other special web services than focused communities. According to the study, elderly people prefer discussions with others from the same age group. At the time being, the number of online communities targeted at Finnish senior citizens is low. As a conclusion we propose that by offering elderly people more online communities their social well-being could be increased.

Keywords — online communities, attraction, non-attraction, elderly people

I. INTRODUCTION

A. Background of the study

In the research of Internet usage, elderly peoples' age groups have been neglected [1]. However, during the last years, the interest towards senior citizens has grown when both academics and business people have discovered that seniors constitute a growing group among the internet users. A survey by Wired/Merrill Lynch concluded that 15 per cent of the 50 million internet users in the USA are over the age of 50, compared with only 5 per cent a year earlier [2].

Online communities lack geographical and time-related limitations. Everyone having the access can visit online communities whenever they want. Therefore, online communities open new possibilities to interaction for, for example, elderly people who often feel lonely and wish to have more social contacts. They need both skills to use the technology and computers as well as internet access at home or in such public places as libraries and net cafes to be able to visit online communities.

To serve senior citizens, companies and other organizations aiming at designing, building and maintaining online communities for elderly people need information about the special requirements set for the equipment, the architecture as well as the content of the web sites. Device manufacturers and software developers have to take into account elderly people's special characteristics and needs. Therefore, it is important to study elderly people's perceptions of the factors that attract them to online communities.

B. Purpose of the study

In this paper we scrutinize elderly people's perceptions of the factors that encourage them to join online communities and, on the other hand, of the factors preventing them from joining the communities. The theoretical background of the study lies on the earlier studies of attraction and non-attraction of company online communities [3], [4]. The empirical study was focused on the respondents older than 55 years. When referring to them we use the terms 'seniors' and 'elderly people' interchangeably, which is in line with the practice in previous studies concerning seniors' web usage. However, the age limit in our study is lower than usually used in studies concerning ageing. [1], [5], [6]

C. Structure of the paper

The paper proceeds with the introduction of the concepts of online communities and attraction. Then we introduce earlier studies concerned with attraction and non-attraction in online communities. After that, the methodology and findings of the empirical study are presented. Finally, conclusions are drawn and future research paths considered.

II. ATTRACTION OF ONLINE COMMUNITIES

A. Online communities

From a very early age on, people move in groups: from the playgroup to the weekly drink with retired friends, social companionship is a key factor of human life. The communities thus formed have been studied by the fields of social psychology and anthropology for decades and their characteristics are rather well known [7], [8].

A new constellation of groups, online communities date back to the early seventies when the first news-groups emerged on Internet. At first, these groups consisted of

researchers with a common interest in research and also a need for co-operation. At approximately the same time the first multi-user dungeons (MUDs) appeared in Great Britain. A MUD is a virtual world where people play different kinds of role-playing games in an imaginative environment. They can also associate with other people, exchange ideas etc.

By 1980 e-mail capabilities had developed significantly. Bulletin boards were regularly used and Finger and WHOIS programs were developed to help people to find e-mail addresses. These improvements of the initial communication tools were made due to the demand of users. Once they were sufficiently developed and structured enough users began to form a community. [9], [10], [11], [12]

More recently, the early static web sites that appeared in the mid 1990's have shifted to highly interactive web sites allowing the communication not only between the site and the visitors but also between visitors. As a result, online communities have swiftly appeared on the World Wide Web. As both the numbers of online community sites and visitors have grown quickly; both the popular press and researchers of different sciences have become interested in them as a subject of study. [13]

Online community sites are said to be one of the fastest growing category of web-sites [14]. Already in 1999 Gross stated that there are over 25 million members of online communities. In 2001 the Pew Internet & American Life Project reported that 90 million American have participated in an online group [15].

The rapid evolution of technology has influenced the development of online communities significantly. The first bulletin boards were designed based on the metaphor of a physical bulleting boards. Nowadays people are able to send messages to the boards where they are displayed in various ways. Usually the messages are threaded so that the first message forms the beginning of the thread and later responses are stacked beneath the first one. [16]

From the beginning of 1990s services have developed rapidly enabling visitors to use advanced search facilities, create own profiles with personal data and pictures, see other's profiles, have private conversations and use avatars, for example. In addition to asynchronous communication technologies such as discussion forums (bulleting boards), where messages can be read and responded to hours, weeks or months later, also synchronous services that require that communication partners are co-present online, have been added. These synchronous services include chat systems, instant messaging and texting systems. [16]

Nowadays, online communities appear in a variety of web sites which were gradually integrated into single environments, for example graphical, three dimensional environments such as Habbo Hotel (<http://www.habbohotel.com/>), a virtual hotel where people can meet their friends and furnish their own rooms. Also highly sophisticated gaming worlds, for example Battlefield, Counter-Strike and Unreal Tournament 2004 attract a large amount of enthusiastic users. In these games,

users may conduct at least two kinds of actions almost simultaneously: play and chat with others.

One of the most spoken community technologies is MP3, which makes it possible to facilitate distribution and share music. This technology has enabled online communities where visitors may effectively share and get the newest music, pc-games and console games by free.

Rapid technological development of software has increased the demands set to the users' device technology. Computers have to be equipped with fast processors, effective display controllers, large memories and high-bandwidth Internet connections.

B. Attraction

Traditionally, attraction is seen as an interpersonal phenomenon. As such, it has been studied in social psychology and in marketing. Attraction received the greatest attention within *the social exchange theory* where Homans [17] and Thibaut and Kelley [18] depicted the interaction between people as an exchange, in which feelings like devotion or love are exchangeable. Because of that, attraction's determinants have been viewed as primarily social in nature. In social psychology attraction is defined to mean devotion or love towards another person or group. Attraction is seen as an important element in group formation, because attraction power increases cohesion in groups and also defines their limits. Furthermore, attraction has been studied as a tool of sociometry research [19].

Within the (virtual) network theory, the concept of *competency* is used in describing the factor that explains, for example, a company's ability to attract new customers and retain old customers. Competency may also refer to a website's ability to attract people to visit the site. Competency can be based on, for example, the products of the company or the website's content. In the network theory, the knots may be given a competency rate that describes the knot's ability to compete on the links. [20] All in all, the concept of competency approaches the same phenomenon, attraction, from the perspective of the (virtual) network theory.

The concept of attraction in marketing science is often related to the acquisition of new customers as well as to the distinction from competitors. In this study we approach attraction from the relationship marketing perspective emphasising the importance of attraction in maintaining and enhancing relationships with customers and other stakeholders.

The dynamic nature of marketing relations recognises that they evolve and change over time, as a result of interaction between parties as well as the parties' interaction with their environment. In the literature, such issues as trust and commitment, adaptation, co-operation, interaction, interdependence, mutual goals, social and structural bonds, promises and shared goals have been considered as key factors to successful relationships [21], [22], [23], [24]. It has been suggested that attraction even has a more fundamental role in the continuity of a relationship than, for instance, commitment and trust [25], [26]. According to Kelley and Thibaut [27], attraction

explains why relationships are initiated and developed. Some degree of attraction is a necessary precondition for the commencement of interaction, while ongoing attraction determines whether parties are motivated to maintain a relationship or not [26], [28]. Already the first definition of relationship marketing by Berry [29] stresses the importance of attraction:

Relationship marketing is attracting, maintaining and – in multi-service organisations – enhancing customer relationships. Servicing and selling to existing customers is viewed to be just as important to long-term marketing success as acquiring new customers.

Despite the above, attraction has been studied less than the other relational bonds. According to Harris, O'Malley & Pattersson [30], one explanation could be that because attraction is so essential to the formation and maintenance of relationships it is considered as basic practice of marketing that is taken for granted. Harris et al. [30] point out that further explication of the concept may provide a much-needed explanatory framework for a relationship development.

In marketing, attraction has been studied in the context of personal selling and negotiations where the main focus is in the attraction between two persons. However, attraction can be seen as an inter-firm phenomenon as well. Attraction may be viewed as a company's interest in exchange with another based on the economic and social reward-cost outcomes expected from a relationship over time [31]. According to Mittilä [32], in business relations, attraction is first based on expectations and references and presumed satisfaction. In older relationships, the experiences and the involvement as well as factors outside the relationship also affect it. As we can conclude from above, attraction is a very strongly future-oriented concept.

In business relations it is recommendable to consider both collective and *individual* attraction. At the collective level attraction can be seen as a company's interest in co-operation with another actor(s). At the individual level attraction is an individual's interest in personal intercommunication. When considering businesses, attraction can also be directed towards the product (goods/service) itself. [32]

Here, attraction is studied in an online community context that has its own characteristics. Members of an online community form various kinds and levels of relations. Online environment allows the company's websites to represent the company as a personalised entity. Therefore, members may communicate with the maintainer using the sites as a media or they may interact with the websites. Online context also allows the members to communicate with each other, which enables us to study attraction in a c-to-c context too.

Drawn from the literature review, attraction is defined in this study as *an online community's ability to draw members*. Since we study attraction from the online community visitor's point of view we study online communities' *perceived attraction*.

C. Earlier studies of attraction

1) Attraction factors

Earlier studies have shown that modest price [31] and both functional and imaginary factors [26] have an influence on creating attraction in business relations. Price and functional factors are very concrete and easy to compare with others, but imaginary factors are dependent on the ideologies and attitudes of relationship parties.

Social exchange literature suggests that attraction is based on individuals' physical attributes [33], their abilities [34] and their personality [35], [36]. If we think about these elements in an online community context, physical attributes of other visitors are usually not seen. Furthermore, it is hard to evaluate other members' abilities as well as their personality due to possibility of a fake identity in the online environment. On the other hand, the physical attributes of a web site are easily evaluated. Ability of a web site may refer to the maintainer's skills and wants to respond to visitors' needs. Personality of an online site may refer to its content and the atmosphere of, for instance, the online community.

Eskola [19] mentioned three factors that influence attraction among people. These are geographical proximity, similarity, and complementarity. In an online environment geographical proximity between individuals is not an issue. Yet, the geographical proximity may be an important attraction factor indirectly as it may reflect similarity between members. Furthermore, similarities between two individuals may occur if they share similarities in their backgrounds [37], demographics [38], education [39], attitudes [40], [41], and goals and values [42]. In addition, also the degrees to which they are exposed to one another [43], affect the level of attraction. Another issue in online communities is the identification between the maintainer and the visitors. Either the values of the maintainers have to meet visitors' values to attract them to the site or they may greatly differ from those of the visitors. Because visitors online do not have to personally involve (e.g. lurkers, fake identities) they may be attracted to communities they would never dare to join in real life.

According to O'Shaughnessy [44], the ideology between relationship parties is one of the attraction factors. The similarity in attitudes between partners has the same kind of effect, but not as strong as the similarity of ideology does. Also Campbell et al. [45] stated that the similarity in ideologies and attitudes between partners results in the better output from the both partners' views. Nevertheless, the company's openness and kindness can replace the differences between attitudes and ideologies. In this case, attraction is more based on other things (e.g. social intercommunication) then having a same kind of values [44]. In an online community context the similarity may occur between members and the maintainer, between members, or between the value of the community and the member, for example.

Harris et al. [30] studied attraction in b-to-b relationships by conducting 54 interviews among barristers and solicitors. Their research suggests that while legal

professionals are motivated to seek relationships with those who can supply work and to gain access to lucrative clients (economic attractiveness), they also forge relationships to help overcome short-term difficulties (resource attractiveness). According to their research, social attractiveness has an important role as legal professionals prefer in working with colleagues that create a positive working environment, provide access to social networks, enhance self-esteem and/or adopt similar working styles. They concluded that determinants of attraction may go beyond the simple characterisation of relationships in terms of economic, resource and social content. Further, they suggested that familiarity is a necessary condition for attraction to occur.

Furthermore, Harris et al.'s [30] perceptions regarding which parties are attractive and which are not are influenced by (i) socialization process, (ii) similarity, (iii) compatibility, and (iv) knowledge of alternatives. Finally, based on their empirical study, attraction in the context of their study is comprised of four elements: (i) complementarity of performance domain, (ii) legitimate and reward power, (iii) reputation, and (iv) socio-sexual attraction. As a conclusion of their study Harris et al presented a conceptual model of attraction, its determinants, and its consequences. Harris et al's study (2003) made a considerable contribution in defining the concept of attraction. Factors that have been found to influence attraction in earlier studies are presented in Table 1.

Table 1. Factors influencing attraction

Attraction factor	Author
Complementarity (of performance domain)	Eskola 1984; Harris et al. 2003
Familiarity	Harris et al. 2003
Functional and imaginary factors	Dwyer et al. 1987, p. 16
Geographical proximity	Eskola 1984
Individuals' abilities	Senn 1971
Individuals' personality	Boyden, et al. 1984; Carli et al. 1994; Caspi and Harbener 1990; Evans 1963
Individuals' physical attributes	Byrne, London and Reeves 1968; Dion et al.1972
Knowledge of alternatives	Harris et al. 2003
Legitimate and reward power	Harris et al. 2003
Modest price	Halinen 1994a, p. 272 ; Dwyer et al. 1987, p. 16)
Reputation	Harris et al. 2003
Similar goals and values and degrees they are exposed to one another	Gupta 1983; Moreland and Zajonc 1982
Similar ideology	O'Shaughnessy 1971-1972, p. 33, Campbell et al. 1988, p. 52; Dwyer et al. 1987, p. 16
Similarity in attitudes	Byrne 1971; Byrne et al. 1968; Griffit et al. 1972; Dwyer et al. 1987, p. 16; Campbell et al. 1988, p. 52
Similarity in backgrounds	Powell 1990
Similarity in demographics	Byrne et al. 1968
Similarity in education	Evans 1963
Socialisation process	Harris et al. 2003
Socio-sexuality	Harris et al. 2003

2) *Reasons to visit online communities*

Researchers in the online community research field have considered reasons for people to join and visit online communities. Although these studies do not approach online communities from the attraction theory perspective, some of them tackle the issues similar to our study. Therefore, these studies offer interesting insights. Previous studies about members' reasons to visit online communities are gathered in Table 2.

Table 2. Reasons to visit online communities

Author	Reasons/ motivations to visit or join in	Main emphasis in the study
Bagozzi and Dholakia 2002; Dholakia et al. 2004	Individual motives, social influences and social identity	Motivations to join, psychological perspective
Gruen et al. 2005	Factors that are divided into motivation, opportunity and ability	C-to-c knowledge exchange
Hagel and Armstrong 1997	Interest, relationship, fantasy games, transactions, many needs simultaneously	The economical benefits of online communities
McKenna and Bargh 1999; McKenna and Green 2002	Self-related: stigmatised and constrained identities Social related: social anxiety, loneliness, hectic lifestyle, safety issues	Motivations to join, psychological perspective
Ridings and Gefen 2004	Exchange information, social support, friendship, recreation, common interest, technical reasons	Reasons why people visit online communities
Wasko and Faraj 2000	Tangible returns, intangible returns and community interest	Knowledge exchange

Hagel and Armstrong [46] argue that while online communities aggregate information and other kinds of resources, above all they are about aggregating people. According to them, people are drawn to online communities because of an engaging environment in which to connect with other people, but more often in an ongoing series of interactions that create an atmosphere of trust and real insight.

According to Hagel and Armstrong [46], the first reason to join in communities is *interest*, because many of the first communities focused on connecting people who shared same kinds of interests. The second reason is *relationship*, because independence of time and place helps people to build significant and interactive relationships. However, it needs to be pointed out that there still remain cultural differences in people's behaviour and language barriers between them. Thirdly, *fantasy games*, which are offered by communities, help people forget their routines for a while. The fourth reason to join online communities, according to Hagel and Armstrong [46], are *transactions*. Before the internet, commercial actions between consumers mainly happened with the fellows or by writing an ad to newspapers. Since the internet allows selling and buying globally and around the clock it has revolutionised the possibilities.

Above transactions are not only commercial transactions but also for giving and receiving information. In addition to these four factors argued by Hagel and Armstrong [46], the infrastructure of the community affects the attractiveness as well [10]. Finally, to be able to really engage people and to make them come back it is important that the community is pleasant and attractive addressing several of the needs a person might have. For this reason, the most successful online communities meet more than one need simultaneously. [46]

Approaching motivation from a psychological perspective, McKenna and Bargh [47] built a conceptual framework of internet's social interaction. In their framework they divide the type of motivation into *self-related* and *social related* types. As self-related motivators they mention stigmatised and constrained identities. According to them, the behaviour deriving from self-related motivators are disclosure of secret aspects of self and becoming the ideal self. As social motivators they mention social anxiety, loneliness, hectic lifestyle and safety issues. Moreover, the behaviour deriving from the social motivators are disclosure to gain intimacy, presenting the ideal self to gain approval and acceptance and forming relationships. [47]

Bagozzi and Dholakia [48] and Dholakia et al. [49] have as well been interested in participants' motivations visiting online communities. They have built a *social influence model* of consumer participation in online communities, which consists of three parts: *individual motives* for participation in the online community, *social influences* on member participation in the online community and *social identity* in the online community. Furthermore, individual motives are divided into purposive value, self-discovery, maintaining interpersonal interconnectivity, social enhancement and entertainment value.

Wasko and Faraj [50] explored reasons why people participate and help each others in online communities. They concentrated on *knowledge exchange* and therefore, they empirically explored three technical communities in their study. They asked participants an open-ended question by e-mail, about why they participate and help others and got 342 answers. In analysing data they utilised content analysis and divided the results into three general categories *tangible returns*, *intangible returns*, and *community interest*. Firstly, by tangible returns they meant access to useful information and expertise, answers to specific questions, and personal gain. Secondly, intangible returns refer to intrinsic satisfaction and self-actualisation. Thirdly, they said that the majority of comments received (41.9%) reflect a strong desire to have an access to a community of practice. According them, these comments indicate that people are participating in order to exchange knowledge pertaining to practice, and they value the exchange of practice related knowledge within a community of like minded members. In addition, Wasko and Faraj [50] stated that these comments indicate that people do not use the forum to socialise, nor to develop personal relationships. According to their study giving back

to the community in return for help was by far the most cited reason for why people participate.

Furthermore, Wasko and Faraj [50] suggested that members are not simply interested in a forum for questions and answers, but appreciate the online dialog, debate and discussion around topics of interest. Members help each other due to the possibility of *reciprocation* [49], [50]. In other words, they expect that interaction will be available in the future. People feel that the community provides access to knowledge rather than just information.

Finally, Wasko and Faraj [50] argued that communities are especially critical for workers who do not have direct access to others in their practice. Therefore, they pointed out that online communities should use technologies that keep track of the structure of the interaction, archive discussions in a searchable format, and display the identities of group members.

Gruen, Osmonbekov and Czaplewski [51] proposed a conceptual model to examine the key factors that drive c-to-c exchanges as well as the outcomes of the exchanges. They used *the theory of motivation, opportunity and ability* [52] to explain levels of c-to-c know-how exchange. They suggested that companies can impact the company-customer relationship by helping their customer build productive relationships among themselves. In their model Gruen et al. [50] also present the factors influencing on three elements suggested in the MOA theory: motivation, opportunity and ability. However, as in the other earlier studies considering this area, Gruen et al.'s perspective is different with the one used in this study, since their model derives from the customer as the attraction concept derives from the online community.

Ridings and Gefen [13] studied the importance of the reasons in assessing why people come to online communities. Hence, they asked directly from the members why they joined. They asked an open-ended question "Why did you join?" in discussion forums of 27 online communities. They divided online communities to five categories: health/ wellness communities, personal interest communities, pet communities, professional communities and sport recreation communities. As a result, they got 569 different reasons from 399 people.

Ridings and Gefen [13] categorised the results to four initial categories by two judges who worked independently of each other. These categories were selected based on the earlier literature and labelled exchange information, social support, friendship and recreation. In addition, the judges were able to use other category if the result did not fit into the given ones. After the coding process common interest and technical reasons were added to the given categories.

According to Ridings and Gefen's [13] results, most people sought for either friendship or exchange of information and markedly lower percent for social support or recreation. They found that the results were significantly dependent on the different community types. Yet, in all types information exchange was the most important reason. Social support was the second most popular reason for members in communities with health/wellness and

professional/occupational topics, but friendship was the second most popular reason among members in communities dealing with personal interests/hobbies, pets or recreation. Therefore, according to Ridings and Gefen [13], online community managers should emphasise not only the content but also encourage the friendship and social support aspects as well if they wish to increase the success of their online community.

D. Attraction of online communities

Mäntymäki and Mittilä [3] and Antikainen [53] have studied attraction in company online communities. Antikainen (forthcoming) introduced an attraction model presented in Table 3. The attraction model includes three elements: different community relations, i.e. attraction relationships; the type of attraction, i.e. whether attraction is related to a member as an individual or as a social entity; and the attraction factors.

Since entertainment and benefit are a sum of many factors, they are not considered as separate attraction factors in Antikainen's model [53].

Table 3. Attraction model (Antikainen forthcoming)

RELATIONSHIP	TYPE OF ATTRACTION	ATTRACTION FACTOR
Member-to-member	<i>Self-related / social related</i>	Knowledge exchange with members
	<i>Social related</i>	Discussions
	<i>Social related</i>	Commercial activities
	<i>Social related</i>	Dating
	<i>Social related</i>	Diversity of people
	<i>Social related</i>	Friendships
	<i>Social related</i>	Playing
	<i>Social related</i>	Roles
Member-to-maintainer	<i>Self-related / social related</i>	Knowledge exchange with maintainer
	<i>Self-related</i>	Maintainers' content
Member-to-service	<i>Self-related</i>	Members' content
	<i>Self-related</i>	Awareness
	<i>Self-related</i>	Service variety
	<i>Self-related</i>	Usability
Member-to-brand	<i>Self-related</i>	Reputation

Mäntymäki and Mittilä [3] found out that in an online community that resembled a web service, factors were related to the content and service variety while in other online communities, factors related to interaction and relationship played a bigger role.

Mittilä and Mäntymäki [4] also studied the opposite to attraction, non-attraction. They found four factors labelled as non-attraction factors, namely content, membership, usability and culture.

III PERCEIVED ATTRACTION OF ONLINE COMMUNITIES AMONG ELDERLY PEOPLE

A. *Earlier studies of elderly Internet users*

Despite the fact that seniors are often inexperienced with computers and may need classes to be able to use this technology, today's elderly constitute the fastest growing demographic of the internet users and spend more time on the internet than other demographic users. [54], [55]

Earlier studies have shown that older users prefer internet sites that do not demand complicated manipulation of software, simply in order to browse. They prefer functions that make on-line navigation easier and more convenient; for instance, simple, clear, and polite messages. [56] Other studies have shown that older people want the same things as users in general: a site that is easy to use, fast, clear, and secure. Vuori and Holmlund-Rytkönen [1] report an academic study concluding that the internet users aged 55+ were mostly interested in the same services and operations as younger users are, i.e., sending and receiving e-mail, searching for information, and using e-bank services. Other operations, such as e-shopping, reading on the internet or visiting online forums, were not as popular as it seems to be within younger users. Yet, these operations have future potential to grow.

In Vuori and Holmlund-Rytkönen's study [1], 44 per cent of the respondents said that it is not easy to learn to use internet without help from outside, and more than 80 percent supported the notion of free internet education or advice. Their study showed that in general seniors do not accept the need for special websites. Yet, they disagree with the statement that their needs are "well taken into consideration".

However, based on the studies, it seems that the expert majority's opinion is that the older people need separate internet sites, or at least modifications of existing ones [57], incorporating, for example, larger font sizes and simpler graphics.

B. *Methodology of the empirical study*

Since earlier studies of online communities [3], [4], [58] have shown the method of posing questions in discussion forums successful in gathering qualitative data, the same method was utilised in this explorative study as well. The data was collected by posing open questions to be able to get also the results that were not expected. The questions posed in the discussion forums are included in Appendix 1. The empirical data was gathered in three online communities. One of them was aimed for elderly people, called as ET-lehti (www.goldenage.fi/ET-lehti/), which is a Finnish web journal for elderly people. All in all, twelve answers were received in 20 days. The answers were of high quality, in other words, they contained rich data. Eleven respondents fulfilled our requirement of the age. In addition, we received two answers by email.

Another online community in this study was Suomi24 (www.Suomi24.fi), a popular online community aimed to

Finnish people. Suomi24 includes discussion forums called "60+", "70+" and "80+", where the questions were posed. However, the questions were removed by the moderator and transferred to the "Looking for pen pals" section. We received four answers in 15 days. Since these answers contained only small amount of data, the quality of these answers was quite the opposite from the ones from ET-lehti. The third online community utilised for the study was Martat (www.martat.fi). Ten answers were received, but all the respondents were younger than 55 years.

It seems that there are quite a limited number of online communities for seniors in Finland. Therefore, collecting data was problematic. Moreover, because of the high amount of the "junk" answers it was supposed that a better way to collect data was to link a questionnaire on the web site. To ensure a satisfactory amount of data it was decided to collect data in another way and also from outside Finland. Therefore, the second step in data collecting was taken by creating a web questionnaire and sending a link to our study into the chosen forums. Because the first answers included only few comments concerning technological issues, it was decided to add one question considering the possible technological problems confronted. A survey formula is presented in Appendix 2.

The request for answering was sent to Näkökulma (www.nakokulma.net), Nicehouse (nicehouse.fi), Suomi24 and Martat. Näkökulma is aimed for people interested in discussing philosophy, culture, religion, science and society. Nicehouse is for women and families. Because the first data collection was not successful in Suomi24 and Martat, the second round by using different methods was conducted. The second round of data collection in these online communities ended with 23 answers; however, three of them were discarded. The number of women was 18 and of men five.

International forums were SeniorNet (www.seniornet.org), whose mission is to provide older adults education for and access to computer technologies to enhance their lives. Another forum was GreyPath (www.greypath.com), an Australian online community for seniors. These forums produced nine answers more in ten days. Three of the answers were disqualified, so the final result was six answers, which included four answers from women and two from men. With these answers the saturation point was reached. In other words, at some point new data was not received but rather the same themes started to repeat themselves.

The analysis of the data was started already during the study. The answers were feed to the analysis software called QSR NVivo. The analysis consisted of searching and identifying different themes from the answers that were then combined to form categories.

C Empirical findings

Next, factors derived from the data are presented. The respondents recognised factors enhancing both attraction and non-attraction.

Asking for and giving advices was a common attraction factor. Respondents looked for advice for various purposes, for instance, photographing, craft, and boating. They give advice about how to use the internet, for example. One of the respondents stated that it is nice to know that if he asks for something, he also gets the answer. This also encourages him to answer others' questions.

Discussing with each other was one of the main reasons to visit online communities. One attraction factor was the expressing of own opinions as well as the learning of others' opinions. The respondents stated that they like to have challenging conversations.

Lack of discussion seemed to be the main reason to end visiting online community. Another reason to end visiting online communities was that some respondents stated that they are unable to understand the language and metaphors used by younger members. In the respondents' opinions, younger people are even too strict in their conversations, and therefore, they preferred online communities focused on older people. In general, disturbing behaviors as well as inappropriate discussions were mentioned as reasons to stop visiting.

Binding new relationships with others as well as meeting people online were important factors. One of the respondents knows many people through the discussion forums and she visits the online community to chat with these people. Since older people often feel lonely and they also might have some physical restrictions, the internet and online communities open up new possibilities to be socially active. Such a reason as to visit online communities to replace one's earlier work community came up in the answers. Furthermore, one of the respondents said that she visits the online community to "open the window into the world". It seems that meeting *the diversity of people* coming from different backgrounds is probably even more important for seniors than other age groups.

Although different backgrounds of other people were appreciated, also *similarity* and sense of community were mentioned. One respondent stated that the backup of the others has been very helpful in ending smoking.

Seeking for dating partner is very popular reason for visiting online communities in general and based of the answers it seems that seniors also look for a partner in online communities.

Furthermore, possibility to meet different kinds of people and discuss with them behind a nickname was one of the attraction factors. Therefore, *anonymity* is one of the seniors' attraction factors as well. One of the respondents said that she has ended visiting a forum because she felt that someone has recognized her.

Information seeking for various reasons from the communities' websites was common attraction factor among elderly people. This kind of information seeking differs from looking for advice and information from other

members of the community. Such pieces of information people look for from the websites as legal issues, congratulation poems and different languages were mentioned in the data.

An interesting attraction factor came up in the answers. One of the respondents stated that he visits online community because he is *aware* of the online community.

According to the respondents, it is important that the software in the online community is easy to use. Some problems with *the usage of own computer and using the online communities* were reported. Also complicated registrations and passwords seemed to trouble some of the respondents. However, most of the respondents said that they had not confronted any problems. Therefore, *the impact of technology-related issues* did not seem to be important attraction of non-attraction factor among elderly people.

IV DISCUSSION AND CONCLUSIONS

The present study of perceived attraction factors conducted among elderly people seems to verify the existence of the factors earlier identified by Antikainen [52] and Mäntymäki and Mittleilä [3]. However, interestingly, such issues as commercial activities, playing, and service variety were not mentioned by the respondents. Therefore, we can perhaps conclude that elderly people are not that interested in those activities in online communities.

The low amount of comments concerning technology related, computer usage and online community usability issues called our attention. The results do not seem to support the suggestion that seniors need special web services as argued by e.g. Judd [57]. The reason for that can be that people slowly become more skilled in using the information technology.

One conclusion of the study is that seniors seem to prefer visiting online communities where other members belong in the same age group. This can be seen as a similarity issue of experiences, world view and verbal expression. The elderly may experience the language used by younger people was hard to understand or too strict and insulting. However, on the other hand, some of the seniors stressed that meeting people from other age groups and backgrounds was their reason to visit online communities. This factor seemed to be even more stressed than in the earlier studies considering company online communities. All in all, social intercommunication received more weight in this study than in earlier studies

As to the data collection methodology of the study, we can conclude that linking a questionnaire into the discussion forums produced better quality answers than posing questions directly in forums. Therefore, the former method will be favored in the forthcoming studies.

As a managerial implication we suggest that especially non-profit and public organizations could enhance the well-being of elderly people by creating and maintaining online communities. Because there are only few online communities for elderly people in Finland, they wish to

have more communities for them. However, profitability of the online communities for elderly people may be questioned when concerning the results of this study.

With this study we have only opened the path for further studies. Next step is to quantitatively study attraction and non-attraction among elderly people to generalize the results. Since elderly people is a fast growing group of online community members, this kind of research is valuable both for academic world as well as organizations who are building or aiming to build online communities.

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APPENDIX 1

Hello!

This is a survey conducted at the Tampere University of Technology to explore reasons what attracts visitors to online communities. Responding takes only couple of minutes and you can answer directly in this discussion forum or by email maria.antikainen@tut.fi.

1. Your age and gender.
2. Why do you visit here?
3. What do you do here?
4. Do you visit other discussion forums? If yes, why?
5. Have you ended visiting some discussion forum?

Thank you!

Best regards,
XX

APPENDIX 2

Seniors over 55 year: Participate into academic study

We are conducting a research concerning the attraction of online communities among elderly people at Tampere University of Technology in Finland. If you are over 55 years, please spend three minutes in answering a short questionnaire.

The questionnaire can be found here.

<http://www.surveymonkey.com/s.asp?u=743862575788>

Thank you for your help!

The questionnaire

1. What draws you in online communities? What kinds of activities do you do there?
2. Have you ended visiting some online communities, if yes why?
3. Have you confronted problems with using the sites or services in online communities? If yes, what kinds of? Have you ended visiting because of those problems?
4. Age
5. Gender