

# Online social support for older people

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## Introduction

Until a few years ago, the main activities of internet users were all about accessing information and data. These days, the internet is increasingly used for social interaction and communication purposes. This topic becomes ever more important with the growing popularity of virtual environments, social networking websites and their likes. The fact that more and more people use online communities for social interaction opens new challenges for inclusive design researchers and practitioners. In addition to making information accessible to people with special needs, it is also necessary to ensure that everybody has access to the social aspects of online activities.

This article specifically focuses on the user group of older people. Although a lot of effort has been put into making the internet accessible for older people, little has been done regarding the investigation and inclusion of older people in social interactions online. Is it enough to make sure that older people can read and understand information on websites? Doesn't the internet provide more than information? And are we doing enough to ensure that the social aspects of the internet are accessible to older users as well?

We need to explore the opportunities and challenges of information and communication technologies as a tool to support older people in their daily life. One aspect of this is the exchange of social support among older people in online communities. Apart from possible benefits and opportunities for social connections, it is also necessary to assess the challenges and restrictions of computer-mediated communication when it comes to the facilitation of social support.

This topic has a significant contribution to inclusive design as it gives insights into the versatile characteristics of online communication. The results of studies in this area shed light on the patterns of social support exchanged among older people in online communities as opposed to their offline communities. If we understand the aspects of online social support and how it is exchanged by older people in online communications, we can also find ways to nurture it and design online communities to better facilitate supportive communication.

## Older people and the internet

In recent years, the interest in the role and well-being of older people in today's society has become a centre of attention for researchers from different academic fields. This is mainly due to the constant increase of the percentage of older people in today's society. Currently, 16% of the population in Britain are 60 years or older [8].

As the number of older people is increasing, more and more people aged 65 and above are going online. Between 2000 and 2004 the degree of internet usage by people aged 65 and older has increased by 47%. Currently, 22% of American older people use the internet and this figure is estimated to continue growing [6]. Similar numbers can be found in Britain, as 28% of older British people go online [9]. However, the percentage of people of 60+ years that use a computer is still much lower than the number of computer-users in the other age-groups. This gap between the age-groups is even larger when it comes to internet-usage [9]. The UK

government has therefore committed to the aim to fill the gap in internet usage for groups that are at risk of exclusion. This includes the aim to educate and encourage older people to become active online. This is also vital for their inclusion in today's society, as many activities like voting, reading news, and learning are increasingly being offered online [2].

A lot of work has been done to establish guidelines and standards to make the internet accessible for older people (e.g. [7]). The increasing awareness and popularity manifests itself in a trend towards providing a more universal web design, which makes it easier for older people to access and retrieve information from the internet.

Up to now, scholars that investigated the internet usage of older people were mainly concerned with the accessibility of the internet for older people and how age-related changes (e.g. decline of vision and motor abilities) affect older people's use of computers. In order to resolve barriers to the accessibility for older people, HCI researchers and practitioners have developed physical and software interfaces that accommodate for special needs of older people and have developed assistive technologies that help older people access information on the internet (e.g. screen readers).

But it is not only the fact whether older people have access to computer technology or not, it is also the differences in people's activities online that contribute to the *digital divide*. DiMaggio et al. [4] describe the *digital divide* as "inequalities in access to the Internet, extent of use, knowledge of search strategies, quality of technical connections and social support, ability to evaluate the quality of information, and diversity of uses" (p.7). It is therefore important, that not only access to computers and the internet is ensured for older people, but also that it offers the possibility for older people to perform all the activities they want to perform. This also includes social interaction and communication online [16].

## **Online social interaction for older people**

Only few studies have so far investigated online communication and online community-building for older people (e.g. [10, 14, 15, 17, 18]). Wright [15] investigated messages from discussion boards within SeniorNet, an online community for older people. He was particularly interested in the exchange of social support. He found that three major topics in the online community were a) to express the value of the community, b) to give advice based on one's own experiences and c) to share one's life experiences with other members in the online community. Both, informational and emotional support was valued by members of the online community [15]. Furthermore, he found that the more time older people spend in online communities, the larger is the number of people they are in contact with and the higher is their satisfaction with their received support [14].

Older people are not only receivers of support, but have also much to offer. Tinker [12] states that the capacity of support that older people can give is often overlooked and not recognised sufficiently. Studies found that online communities for people that experience a similar life situation are usually characterised to be very supportive and emotional [11]. Given the fact that older people share similar experiences like e.g. retirement, it is believed that online communities for older people have the potential to be a place of support and understanding. Online communities for older people could therefore provide a space and place where older people can not only receive support but also provide support. Studies showed that older people show a higher perceived well-being when they have more social interactions [3]. Also, regular computer usage has been shown to animate older people to higher levels of social activity and mental fitness [5]. Participation in empathic online communities is therefore believed to help preventing isolation and to improve the quality of older people's lives.

The following section describes briefly a code scheme for analysing social interactions within online communities for older people. It provides guidance for sorting the text chunks of discussion board messages into codes, according to the content of the text. This code scheme was developed in order to study empathic social interactions of older people in online communities. Coding the messages distils the meaning of the messages and the characteristics of a conversation from the raw text. Special emphasis is placed on the characteristics of social support in the messages from these online communities where older people with similar interests meet and exchange their experiences. Especially when it comes to situations that older people are more likely to experience than younger people (e.g. age – related illnesses), the exchange of experiences and coping strategies can have an empowering influence on the quality of life for older people.

## A code scheme for the analysis of online social support

In order to understand how older people exchange social support in online communities, I investigated messages of an online community for older people. Text chunks were assigned codes according to their content and intent. The use of such codes to describe the content of a conversation allows to describe and to compare different online conversations. A code scheme for social interaction of older people in online communities was developed. The online community of SeniorNet ([www.seniornet.org](http://www.seniornet.org)) was investigated. SeniorNet is a non-profit organisation that provides computer- and internet-courses. Additionally to offline learning courses for older people, SeniorNet hosts a website that incorporates an online community existing of over 500 discussion boards that cover a variety of different topics. It therefore offers a place for older people to socially interact, talk about their interests, and build connections and friendships with other members. Due to its large size and vital activity within the online community, it has been the basis for various empirical studies about online communities for older people [13, 17, 10, 14, 15]. Figure 1 shows the SeniorNet homepage.



Figure 1 SeniorNet Homepage

Content analysis was applied to 1.200 messages from four discussion boards with the distinctive topics *Ageing issues*, *Back pain*, *Depression*, and *Word processing applications* within the online community of SeniorNet. Through the investigation of the four discussion boards, a code scheme consisting of 21 codes that were sorted into six high-level categories was developed and generalised. A focus group was conducted to discuss and solve existing problems and discrepancies in the code scheme. Results showed the robustness of the six high-level categories for investigating social interactions in an online community for older people. As a conclusion, the high-level categories are proposed as a valid categorisation

scheme in order to investigate empathy and social support in online communities for older people. Table 1 lists the categorisation-scheme.

**Table 1: The code scheme**

<p><b>Light support</b></p> <ul style="list-style-type: none"> <li>• Light encouragement</li> <li>• Best wishes</li> <li>• Humour</li> </ul>
<p><b>Deep support</b></p> <ul style="list-style-type: none"> <li>• Questions in order to help</li> <li>• Advice</li> <li>• Support</li> </ul>
<p><b>Information/Facts</b></p> <ul style="list-style-type: none"> <li>• Factual information</li> <li>• Link to information</li> <li>• Factual questions</li> </ul>
<p><b>Community building</b></p> <ul style="list-style-type: none"> <li>• Thanks</li> <li>• Activity of others</li> <li>• Different channel</li> <li>• Appreciation of the DB</li> <li>• Own activity</li> </ul>
<p><b>Self-disclosure</b></p> <ul style="list-style-type: none"> <li>• Same situation</li> <li>• Narration</li> <li>• Emotional situation</li> <li>• Medical situation</li> <li>• Ask for help/experiences</li> </ul>
<p><b>Off-topic</b></p> <ul style="list-style-type: none"> <li>• Third person story</li> <li>• Chitchat</li> </ul>

The Focus Group concluded that the six high-level categories are stable across all of the investigated discussion groups and could be used as an overall validated code scheme. When it comes to the more detailed codes, however, the differences of the social interactions within the investigated discussion boards were too big in order to be captured by a single code scheme. The focus group concluded in the following recommendation for using the code scheme in order to investigate social interactions of older people within an online discussion board:

The six high-level categories are an appropriate framework to describe for social interactions of older people in discussion board-driven online communities. They should be used as a first code scheme in order to sort the different messages and text chunks into one of the six main categories of contribution. However, the framework is only the first step in the investigation of the online communities. In order to investigate the characteristics of the categories in more

detail, the content of the categories needs to be analysed further. For example, one category is called *Self-disclosure* and includes text in which people talk about themselves. However, the way people talk about themselves was extremely different for every discussion boards, which makes it difficult to create sub-codes that fit for all discussion boards. It is therefore recommended, to have a closer look on the characteristics and nature of the categories for each of the investigated discussion boards in order to conduct a more detailed and specific analysis.

Summarising, the six categories have been validated to be a suitable framework for studying online discussion board communication by older people. However, it is recommended to analyse social interactions beyond the categorisation in order to investigate the characteristics and nuances of the content of each of the six categories.

## Conclusion

The developed code scheme is a first step in analysing how older people exchange social support in online communities. Further studies are necessary in order to examine the differences between online social support and offline social support. Furthermore, studies that go beyond the content of the exchanged messages and also look at the development and maintenance of friendships that evolve in empathic online communities for older people are necessary in order to get a better understanding about social support in online communities. Different methodologies, like content analysis, virtual ethnography, social network analysis, and query-based techniques need to be applied in order to get a full picture of the nature and patterns of social interactions in empathic online communities for older people. Furthermore, it is important to listen to the experiences and opinions of the participants in these empathic online communities to elicit information about the differences, commonalities and also connections between online and offline social support and friendships. Interviews and questionnaires conducted with participants of empathic online communities are necessary in order to make valid conclusions.

It is important to investigate the social accessibility of online activities for older people as this will give insight into the drawbacks and opportunities of online communication for older people, especially when used as a means of supporting them in their daily life. By analysing in detail the patterns of social interaction in online communities for older people, we can identify the constituents of online social support and also investigate the network structure that is developed around it. Research in this area will give insights in how the accessibility of the social aspect of the internet can be improved for older people. This knowledge can be used in the analysis and evaluation of online support communities for older people and can also feed back into their design. Thus, understanding the needs and preferences of older people concerning online communication can contribute to a successful design of online communities for older people.

Additionally, similar investigations for other user groups with special needs are necessary to ensure accessibility to future activities on the internet for the widest possible user groups.

## References

1. Barnett K, Adkins B. (2001). Computers: Community for aging women in Australia. *Women and Environments*, 50/51, 23-25.
2. BBC (2006). Older people 'missing out' online. Retrieved online 2nd of June, 2007 from <http://news.bbc.co.uk/1/hi/technology/5146222.stm>.
3. Czaja, S.J., Guerrier, J.H., Nair, S.N., and Laudauer, T.K. (1993). Computer communication as an aid to independence to older adults. *Behaviour and Information Technology*, 12, 197-207.

4. DiMaggio, P., Hargittai, E., Neuman, W.R., and Robinson, J.P. (2001). Social Implications of the Internet. *Annual Review Sociology*, 2001, 27, 307-336.
5. Eilers ML. (1989). Older adults and computer education: "not to have the world a closed door". *International Journal on Technology and Aging*, 2, 56-76.
6. Fox (2004). *Older Americans and the Internet*. Washington, DC: Pew Internet & American Life Project, 2004.
7. Kurniawan, S., Zaphiris, P. (2005). Research-derived web design guidelines for older people. In: *Proceedings of 7th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS' 05)*. ACM Press, Baltimore.
8. National Statistics (2006). Retrieved online 2nd of June, 2007 from <http://www.statistics.gov.uk/cci/nugget.asp?id=949>.
9. Ofcom (2006). Office of Communication. *Consumers and the communications market: 2006*. Ofcom Consumer Panel, 2006.
10. Pfeil, U. & Zaphiris, P. (2007). Patterns of empathy in online communication. To appear in *Proceedings of CHI 2007 – the ACM Conference on Human Factors in Computing Systems* (San Jose, CA, 28. April - 03. May 2007).
11. Preece, J. & Ghozati, K. (2001). Observations and Explorations of Empathy Online. In: R. R. Rice and J. E. Katz, *The Internet and Health Communication: Experience and Expectations*. Sage Publications Inc.: Thousand Oaks, 2001, 237-260.
12. Tinker, A. (1997). *Older people in modern society*. London: Longman.
13. White J, Weatherall A. (2000) A grounded theory analysis of older adults and information technology. *Educational Gerontology*, 26:371-386.
14. Wright, K. B. (1999) Computer-mediated support groups: An examination of relationships among social support, perceived stress, and coping strategies. *Communication Quarterly*, 47(4), 402-4
15. Wright, K. B. (2000) The communication of social support within an on-line community for older adults: A qualitative analysis of the SeniorNet community. *Qualitative Research Reports in Communication*, 1 (2), 33-43.
16. Xie, B. (2003). Older adults, computers, and the Internet: Future directions. *Gerontechnology*, 2(4), 289-305.
17. Xie, B. (2005). Getting older adults online: The experiences of SeniorNet (USA) and OldKids (China). In: Birgit Jaeger (editor). *Young technologies in old hands: An international view on senior citizens' utilization of ICT*. Copenhagen: DJVF Publishing, pp. 175–204.
18. Zaphiris, P., Sarwar, R. (2006) Trends, Similarities and Differences in the Usage of Teen and Senior Public Online Newsgroups. *ACM Transactions on Computer-Human Interaction (TOCHI)*, 13(3), 403-422.

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*Ulrike Pfeil* started her PhD work in October, 2006, funded by a three-year, full-time doctoral research studentship from City University London. She was awarded an MSc in HCI from the same university in 2006 and a BSc in Information Design from the "Hochschule der Medien", Stuttgart, Germany in 2005. Her research interests include Social Aspects of Computing, especially in Computer-Mediated Communication. She specifically investigates the phenomenon of social support among older people, especially how social support changes in online environments compared to offline ones. Within City University, she is working at the Centre for HCI Design. The research area of the Centre is particularly focused around Requirements Engineering, E-learning, Computer-Supported Collaborative Work, Inclusive Design and Social Aspects of Computing.