

# Social Networking for Well-Being

Marc Steen, Olav Aarts, Carlijn Broekman, Sharon Prins  
TNO, The Netherlands

*marc.steen@tno.nl, olav.aarts@tno.nl, carlijn.broekman@tno.nl, sharon.prins@tno.nl*

**Abstract.** In this paper, we present some of the work that is being done in the *WeCare* project (in the AAL programme). The project's goal is to introduce social networking services in the lives of older people, in order to improve their well-being. Participation in social networks, both online and 'in real life' will help them to stay in touch with family and friends and to meet new people. The project follows a human-centred design approach and is organized in close cooperation with older people and organizations that represent older people. A social networking services is developed—or, actually, four versions of this service, for four countries: Finland, Spain, Ireland and The Netherlands. Furthermore, pilots are organized to evaluate the added value of these services in people's daily lives. Before and after the pilots, participants' experiences of well-being are surveyed to study the effects of using the social networking services. Moreover, based on Social Capital Theory, seven positive habits are articulated that will help people to participate effectively in social networking, thereby empowering them to improve their social well-being. These habits will be evaluated during the pilots and, later on, will be translated into practical recommendations for policy makers and for service developers.

## Introduction

People, especially in more developed countries, get older than before. This, however, does not always mean that expectations for a happy life improve as well. For example, loneliness seems to increase. New ICT possibilities may offer opportunities to combat loneliness, and hence improve the number of 'quality-adjusted life years' of older people. A longitudinal study on loneliness and contact with friends, by Holmén and Furukawa (2002), shows a downwards trend

of 'contact with friends' and 'perceived health' as people age. Moreover, social interaction is assumed to positively affect health (Seeman, 1996).

The overall goal of the WeCare project is to enable older people to participate in social networking, both online and face-to-face, in order to empower them to improve their well-being. The working hypothesis is that participation of older people in social networks, both online and 'in real life' helps them to stay in touch with family and friends and to come in contact with new people, and thereby enables them to improve their social well-being.

The aim is to encourage older people to participate in social networks and to continue to participate in these when they age. If they are active in social networks before ill health or other problems arise, they can help each other. This approach will improve older people's autonomy so that they can live at home longer, which enhances their quality of life. Furthermore, the people who provide family care or informal care can share tasks amongst each other, which prevents them from 'burning-out'. As a result of these two developments, the demand for professional care and social services will decrease.

One social networking service, WeCare 2.0, will be developed, evaluated and implemented in the project. This service offers communication, coordination and information applications, which older people can use together with family and friends, and with people in their neighbourhoods, for example based on shared interests or shared activities. The service includes easy-to-use applications for social communication, such as video communication or discussion forums, and applications to coordinate social activities, such as shared calendars and ways to request or offer support. In the development of these applications, special care is given to ease-of-use and privacy. Moreover, different versions of the WeCare 2.0 service are tailor-made for different contexts in different countries (Finland, Spain, Ireland and The Netherlands) in close cooperation with older people and organization that represent older people. The project views ICT technology as a means toward an end: to empower people to live more happily.

## The WeCare project

The WeCare project is organized as open innovation, because diverse project partners cooperate in it (technology and application oriented companies Ericsson, Sharecare, Videra and Skytek; user organizations ANBO and the Irish Farmers Association; care providers FASS and Caritas; and research and innovation organizations TNO, VTT and I2BC), as multidisciplinary teamwork, because the project is organized in four work packages (WP's) that cooperate closely with each other (WP1 user involvement and co-design; WP2 technology development; WP3 prototyping and piloting; and WP4 business models and policies), and as an iterative process, because it is organized with iterations of research, design and evaluation (which enable project team members to better understand users'

practices, needs and preferences, and to explore, develop and evaluate solutions, and to try-out things and learn from that in close cooperation with users and by organizing pilots). Overall, the project follows a human-centred design approach (ISO 13407), with the following four principles: Active involvement of users, to obtain a clear understanding of user and task requirements; An appropriate allocation of functions between users and technology; Iteration of design and evaluation processes; and a multi-disciplinary approach. We see users as active and creative participants in research and design processes (Steen 2008).

Partners in the WeCare project are from four countries—Finland, Spain, Ireland and The Netherlands—and in each country a co-design process is organized in close cooperation with users and/or user organizations, and different services are developed ('tailor-made') for different contexts, target groups and goals. Moreover, pilot projects are organized in each country to evaluate the service, including the underlying technologies and business models. The following organizations are involved in the different countries:

Finland: Finnish project partners Caritas (care provider), VTT (research) and Videra (technology), and technology partners Ericsson, ShareCare and Skytek;

Spain: Spanish project partners FASS (care provider) and I2BC (research), and technology partners Ericsson, ShareCare, Skytek and Videra;

Ireland: Irish project partners Skytek (technology and research) and the Irish Farmers Association (users' organization), and technology partners Ericsson, ShareCare and Videra; and

The Netherlands: Dutch project partners ANBO (users' organization), HWW (care provider), Sharecare (technology), Ericsson (technology) and TNO (research), and technology partners Skytek and Videra.

## Well-being

Many different words are used to refer to people's well-being, their subjective experiences of quality of life or their happiness. Well-being has been identified as a high ranking good and as a key motivation for people in their lives (Diener, 2009). Helliwell and Putnam (2004) state that subjective well-being, that is 'well-being defined by the individual herself' (p. 1435), should be 'the ultimate dependent variable' in social science.

A useful categorization of different aspects of well-being was proposed by Veenhoven (2000), who proposed to distinguish between the circumstances which people encounter ('life chances'), and the ways in which these circumstances work out for people ('life results'), and between what happens outside or between people ('outer qualities') and what happens within a person ('inner qualities'). Based on these distinctions, four categories can be distinguished: 1) Liveability of the environment, such as ecological, economical

aspects; 2) Life-ability of the person, such as physical and mental health and skills; 3) Utility of life, such as benefits for society or being a good citizen; and 4) Satisfaction, such as feelings of appreciation or contentment (see Figure 1a). We will focus on people’s Satisfaction—which is, however, intimately related with the other qualities and which can be positively influenced by, for example, being able to help other people (Utility of life), or developing skills or habits (Life-ability), or the availability of ICT services (Liveability of the environment).

Within Satisfaction, we can further distinguish between four different aspects (Veenhoven, 2004; 2010): Pleasures, or passing satisfaction with a part of life; 2) Part-satisfactions or enduring satisfaction with a part of life; 3) Top-experiences, or passing satisfaction with life-as-a-whole; and 4) Life satisfaction, or enduring satisfaction with life-as-a-whole (see Figure 1b). We are mostly interested in Part-satisfactions, that is, with the ways in which people appreciate those parts of their lives that are related to social interaction and participation.

	<i>Outer qualities</i>	<i>Inner qualities</i>
<i>Life-chances</i>	<b>Livability of environment</b>	<b>Life-ability of the person</b>
<i>Life-results</i>	<b>Utility of life</b>	<b>Satisfaction</b>

Figure 1a. Four aspects of well-being

	<i>Passing</i>	<i>Enduring</i>
<i>Part of life</i>	<b>Pleasure</b>	<b>Part-satisfaction</b>
<i>Life-as-a-whole</i>	<b>Peak-experience</b>	<b>Life-satisfaction</b>

Figure 1b. Four kinds of satisfaction.

In the WeCare project, we focus on people’s social well-being, which we define as: People’s satisfaction with their social interactions and participation in social networks. Furthermore, we use the term well-being in three different ways (Diener, 2009). First of all, we use it in a normative way because we organize specific interventions with specific goals and formulate specific habits to improve social networking and well-being. Second, we use it in a subjective way when we refer to our evaluations of people’s experiences of well-being;. Thirdly, we use the term well-being in an every-day way, for example in our interviews and interactions with older people.

Argyle (2001) mentioned work, leisure activities, and social relationships as the three main antecedents for well-being. In this chapter we will focus on increasing happiness through increased opportunities for social relationships.

## Social capital

Interacting with other people, participating in groups and social relationships are critical to people’s well-being (Crossley and Langdridge, 2005; Diener, 2009; Golden et al., 2009; Mohnen, Groenewegen and Flap, 2010; Putnam, 2000; Schueller & Seligman, 2010). Social relationships support social well-being

directly as well as indirectly by increasing self-esteem (Crossley and Langdrige, 2005) and by creating opportunities for (volunteer) jobs (Coleman, 1988).

One way to understand and explain the influence of social interaction on well-being, is by the Social Capital Theory because social capital is an important aspect in predicting happiness (Leung et al.; 2011). Helliwell and Putnam (2004: 1444) stated “the impact of society-wide increases in affluence on subjective well-being is uncertain and modest at best, whereas the impact of society-wide increases in social capital on well-being would be unambiguously and strongly positive.”

Social Capital Theory refers to the value of relationships between people. This theory is used to explain how properties of a social network affect differences in success of individuals, teams or organizations (Coleman, 1988). Social capital has been associated with, among others, well-being (Helliwell and Putnam, 2004) and health (Adler & Kwon, 2002; Helliwell and Putnam, 2004; Seeman, 1996).

Putnam (2000) distinguished two kinds of social capital: bridging capital and bonding capital. Bridging capital refers to weak ties between people, in which trust is less important compared to its antonym, bonding capital. Bonding capital refers to strong ties, close friends, people you trust. The Internet, and especially social networking services (SNSs), provide possibilities to maintain ties, even though people are not able to physically meet. The term maintained capital was introduced to refer to this type of social capital (Ellison, Steinfield and Lampe, 2007). We argue that bridging capital and bonding capital are both relevant for well-being as both are both are used for social interaction, although both ties serve different functions in promoting well-being.

An ongoing discussion, however, is whether the Internet improves or deteriorates social ties and thereby social capital (Kraut et al, 2002). On the one hand the Internet provides ample opportunities to contact people easily and cheaply (Bargh and McKenna, 2004; Ellison et al, 2007; Van Lear and Van Aelst, 2010). On the other hand, there are cases in which people spend so much time online and spend less time to physically meet (Kraut et al, 1984).

SNSs offer the possibility to communicate with people easily, cheaply and over long distances, therefore it is likely that the Internet adds to social capital. Especially for people who moved or whose friends moved (Ellison et al, 2007; Bragh and McKenna, 2004). The Internet enables people to stay in touch with friends and family, and to meet new people. Moreover, studies of people who are limited in their mobility (Farnham et al. 2002; Pfeil and Zapharis, 2007), or studies of people with Alzheimer disease (Szreter & Woolcock, 2004) show SNSs help maintain or built social capital. Studies by Ogozalek (1994) and Pfeil and Zaphiris (2007) show that older people can get familiar with the Internet, and profit from advantages which Internet offers.

By offering ample opportunities to create and maintain (online) social relationships, SNS's are likely to add to people's social well-being. However,

even though many studies indicate a positive association between social capital and well-being, little is known about how people should behave in order to maximize their social capital and thereby experience an increase in their subjective well-being (Diener, 2009; Folland, 2007). Especially when including online behaviour, there is a lack of knowledge about how to behave in order to get the maximum out of and fully utilize the SNSs and accordingly increase well-being.

## Research questions and hypotheses

In the WeCare project, we aim to expand our understanding of the effects of online social networking and networking habits on social interaction, and the effect of social interaction on happiness. By providing a social networking service, during the pilot, we expect to promote and improve social interaction, both quantitatively and qualitatively, between the participants. As a result of their improved social interaction and social capital, we hope to measure a significant increase in their well-being. Furthermore, we expect that people are able to develop certain habits that also promote social interaction. In that way—by proving an enabling technology and by enabling people to develop positive networking habits—we intend to empower people to improve their social capital and thereby to improve their well-being.

On the whole, this leads us to the following research questions: How does the participation of older people in online social networking improve social interaction? How do older people's networking habits improve social interaction? And to what extent does social interaction improve social well-being? We expect that if older people are more actively involved in an online social network they have better social interactions, increase the number and quality of social relationships, and by doing so increase their subjective well-being. Accordingly, we have the following hypotheses (see Figure 2):

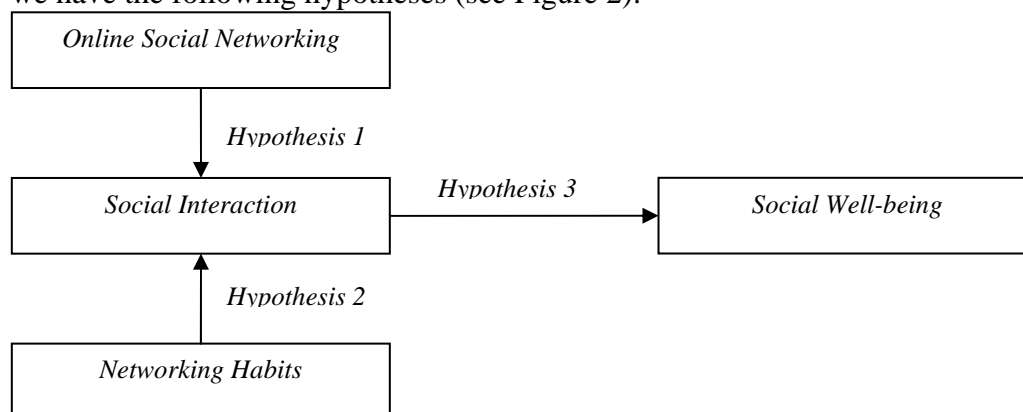


Figure 2. Conceptual model that shows the three hypotheses and the relations between *Online Social Networking*, *Networking Habits*, *Social Interaction* and *Social Well-being*.

- Hypothesis 1: People that participate more actively in online social networking improve their social interaction, and thereby improve their well-being;
- Hypothesis 2: People that practise networking habits more effectively improve their social interaction, and thereby improve their well-being; and
- Hypothesis 3: People that engage more actively in social interaction improve their social well-being.

We expect that there are specific habits in older people's online behaviour that will help them to improve social interaction, and thus to improve their social well-being. Below, we will discuss seven of these habits that are deduced from current scientific literature.

Pfeil and Zaphiris (2007) argue that self-disclosure, for example by revealing information about yourself in a personal profile, is likely to be more important in online communities, than in offline communities. Compared to offline communities, self-disclosure in online communities is more important in order to gain sufficient contextual information. Filling out a personal profile is a way to increase self-disclosure. Since non-verbal communication gets lost in online communication, one has to be more explicit in words. For example, one would need to translate non-verbal communication into words. Therefore, sufficient and explicit usage of words helps in realising higher self-disclosure. Accordingly, members should take enough time and words to communicate, and to describe how they feel quite detailed. If they do so, the Internet can facilitate in building and maintaining personal relationships (Pfeil and Zaphiris, 2007; Parks and Floyd, 1996). In doing so, understanding and empathy will be gained, which is considered to be necessary in social interaction (Pfeil and Zaphiris, 2007). Therefore, we propose the following habit:

- Habit 1: People that express themselves carefully—that is, that express themselves in detail and that express personal and their feelings—will improve social interaction, experience, and thereby their well-being.

The second habit deduced from this line of reasoning is that members should take enough time to communicate, in order to compensate for loss of non-verbal communication. Therefore, the second habit we propose is to take time for conversations and explain yourself and your feelings with sufficient words. Moreover, it is likely that relationships become more reliable and conversations become more personal when people contact each other more frequently. Hence, we propose the following habit:

- Habit 2: People that spend more time online—that is, in terms of frequency or in terms of duration—will improve social interaction, and thereby their well-being.

The Internet offers the possibility to meet people living in similar situation, or having experienced a similar situation. They are able to share information and experiences. Furthermore, people can find people who share an interest or hobby, and converse on this topic. Prior research shows people feel supported and understood when they communicate with people who experience(d) similar situations, or share similar interests (Bargh and McKenna, 2004). Therefore, we argue that actively looking for people with similar experiences or similar interests as a third habit. Accordingly, we propose the following habit:

Habit 3: People that communicate (online) with others that (have) experienced similar situations will improve social interaction, and thereby their well-being.

Another determinant of well-being shown in several studies is community commitment (Diener, 2009). Community commitment is likely to add to sense of belonging. Since sense of belonging is found to be a determinant of social well-being (Holmén and Furukawa, 2005; Crossley and Langdrige, 2002) community commitment is likely to lead to increased social well-being. The Internet provides the possibility to organize activities (Van Lear, Aelst, 2010; Garret, 2006). Therefore, we assume that using SNSs to organize of (online) activities, and attending activities will increase social well-being. This leads to the following habit:

Habit 4: People that are committed to the community (offline or online) will improve social interaction—especially ‘in real life’—and thereby their well-being.

Current literature shows different results on whether helping someone will increase your social well-being. Leung et al (2011) did not find a significant increase of well-being when due to helping someone we do believe that being able to help someone either online or offline will increase happiness. Crossley and Langridge (2005) however did find that ‘helping’ others added to social well-being, especially for women. By giving information and sharing experiences one can offer help online and accordingly become happier themselves. We believe being able to help others will increase social well-being for older people. Being able to help others is likely to add to people’s self-esteem and well-being, which might be especially relevant for older people that can no longer be active in other fields, such as work. We propose the following networking habit:

Habit 5: People that provide or receive support to and from other people (online or offline) will improve social interaction, and thereby well-being.

In social capital, especially in bonding capital there is a central role for trust (Helliwell & Putnam, 2004). In several studies level of trust is used to measure



strong ties, which is synonym for bonding capital, through level of trust (Nahapiet & Ghoshal, 1998). In order to create bonding capital, and accordingly social capital, one needs to believe that people around you are trustworthy. This however, is somewhat controversial in an online environment, since trust might be abused more easily. We argue that, in order utilize ones online social capital maximally, one should pay effort to gain trust and give trust, without getting naïve. This leads us to the following habit:

Habit 6: People that give and receive appropriate levels of trust will improve social interaction, and thereby well-being.

Appropriate ways of self-disclosure (Habit 1) and of giving and receiving trust (Habit 6) are proposed as habits that will stimulate social interaction and thereby well-being. In the digital age, however, there is a tension between trust and social interaction, and between privacy and social interaction (Barnes, 2006). There is a risk that commercial organizations or malevolent people might misuse or abuse private information online (Livingstone, 2008). Aiming to minimize bad experiences due to online interaction, we propose communicate with respect to your privacy. The issue of privacy is intimately related with many of the other habits, such as revealing personal information (Habit 1), sharing experiences (Habit 3), interacting with people online and ‘in real life’ (Habits 4 and 5), and with trust (Habit 6). The habit of carefully handing privacy is aimed at handling privacy appropriately in a specific situation (neither too much, nor too little), and in that sense is similar to the habit of giving and receiving appropriate amounts of trust (Habit 6).

Habit 7: People that act with respect to their own and other people’s privacy will improve social interaction, and thereby well-being.

In sum, we propose the following habits of which we expect that these will enable people to participate effectively in online social networking, so that they can actually improve social interactions, and their well-being (see Figure 3):

1. Express yourself carefully and in detail and express personal information and feelings;
2. Spend time online, in terms of frequency and/or in terms of duration;
3. Communicate with people that (have) experienced similar situations;
4. Participate in community activities (community commitment), especially ‘in real life’;
5. Provide and receive support to and from other people, online and/or offline;
6. Give and receive appropriate levels of trust to others, online and ‘in real life’; and
7. Act with respect for your own and for other people’s privacy.

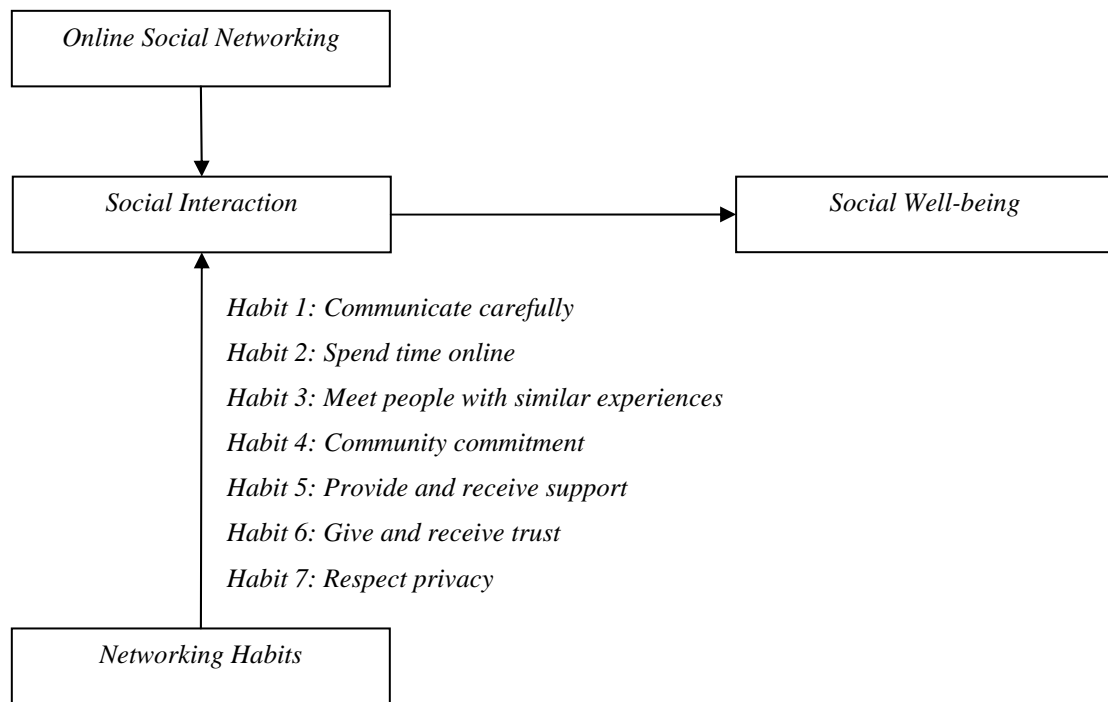


Figure 3. Conceptual model that presents *Networking Habits* and their relation to *Social Interaction* and *Social Well-being*.

## Concluding remarks

Please note that these habits are formulated tentatively, and these will be evaluated in the remainder of the project. At the time of writing (May 2011), pilots are organized in Spain, Finland, Ireland and The Netherlands, in which older people and people in their social networks use the different WeCare services. During these pilots studies, users' behaviour and experiences will be studied. A key element in these studies is a questionnaire-based survey in which people's experiences of well-being are measured before and after participating in the pilots, using the 'Personal and social well-being module (Huppert et al, 2009). Based on the results from this survey, on the logging data of the actual usage of the WeCare services and on observation and interviews, we can evaluate and test our hypotheses. Furthermore, we can evaluate whether and how the tentatively formulated habits actually contribute to people's well-being.

Moreover, we plan to 'translate' these habits—which are currently targeted at users—into recommendations for various other actors. We plan to formulate recommendations for people that are involved in the design and implementation of policies and business models, so that they can indeed design and implement policies and business models that enable and encourage people to engage in social interaction and improve their well-being, and for people that are involved in the

design and provisioning of similar social networking services, so that they can help to design and provide services with ‘affordances’ that indeed enable and encourage people to cultivate these positive habits.

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