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Master Social Psychology

THESIS

Simulated similarity and the 'watch out' effect:

The influence of perceived similarity in online social networking environments

on risky self-disclosure in teenagers

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Abstract

Social networking sites are popular virtual places for teenagers seeking social contacts. One of the dangers associated with such contacts is risky self-disclosure by the teenagers: disclosure of personal information, visual self-disclosure and finally physical self-disclosure. Communication on social networking sites consists of personal presentations including lists of interests and hobbies and messages that are exchanged between members. In both kinds of communication perceived similarity plays an important role in establishing a rapport with and even liking of strangers. This research examines such influences by manipulating the communication medium and perceived similarity, measuring liking, trust, intimate and risky self-disclosure, and investigating moderating factors. Online communication does not appear to cause a higher tendency for risky self-disclosure among teenagers. On the contrary, they report a higher tendency to do so in their offline activities. This suggests that a "watch out" effect is already established in teenagers' attitudes towards social networking sites, possibly as a result of wide social experience with dangers lurking on such sites as well as due to increasing public information on these dangers. An observation that reinforces this explanation is that maintaining a web photo album is related to a higher tendency for risky self-disclosure in offline as well as in online communication. Other factors that reinforce this tendency (higher frequency of computer and Internet use, self-reported digital skills, positive attitude concerning the Internet for social contacts with friends and male sex) also suggest that risky self-disclosure may relate less to social networking sites than to more general personal characteristics that underlie Internet use.

Keywords: online communication, self-disclosure, perceived similarity, teenagers, social networking sites

Introduction

There was a website where a young man presented his talent in luring *Breezer chicks*[1] (see Appendix 1 for the complete text in Dutch). He presented an action plan that starts with several preconditions for capturing the interest of such girls. A boy who wants to lure a Breezer chick has to like (or pretend to like) a number of things: certain types of music, Bacardi Breezer, wearing golden jewelry. He must also appear to think that school is stupid and hate intelligent people. *Breezer chick luring* starts with creating a profile on a social networking site popular with Breezer chicks. There he can find girls who have lists of interests and other personal information on their profile. Later, when they chat in MSN Messenger, the boy can use this information to let girls think he has the same favorite color, the same dreams, the same favorite movies etc. If he develops a good rapport with a girl, the rest will follow little by little. With 'the rest' he means that the girl will expose herself before a webcam or send him sexually tinted video messages (Duimel & De Haan, 2007). By presenting his profile as one of their kind and pretending that they have similar interests and hobbies, he can lure Breezer chicks into risky self-disclosure.

Many people are shocked by such anecdotes. Some dismiss them as urban myths; others are outraged by what can happen on the Internet; yet others refuse to believe that such tricks work in reality. Even if this website was just an instance of bragging, it illustrates the possibilities and dangers of imitation and persuasion in a largely anonymous environment like the Internet. Most adults consider the Internet as a dangerous place, especially for children, primarily because they worry about such situations and their children's reactions to them, even though European parents are reported not to seem overly concerned about their children's use of social networking sites (Livingstone & Haddon, 2009a). Assuming that these

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[1] *Breezer chick* is a derogatory term indicating a type of easy, party-going teenage girls. The term derives from the drink Bacardi Breezer which is popular with such girls.

dangers are real, there are a few important general questions: how easy is it to mislead people on the Internet concerning your true identity and intentions; what are children looking for on the Internet in relation to social contacts; how far can exploitation of children go following misleading contacts on the Internet?

My research focuses on social networking sites, where people present themselves and connect to presentations of others. Social networking sites are popular with teenagers for maintaining social contacts, mainly with real-life friends but also with online friends. The presentation of people on social networking sites gives the impression of reality and trust, i.e. the feeling that you know the person. I focus on the trust which may emerge from contacts with strangers and lead to (usually in these steps): *disclosure of personal information by which one can identify and locate a person in real life* (address, telephone number, e-mail etc.); *disclosure of personal and intimate information, primarily visual*, i.e. photographs and videos (including live webcam feeds), sexually tinted or not; *physical disclosure*, i.e. real-life meetings with strangers one has met on social networking sites.

The goals of my research are to verify the extent and character of social networking dangers: are children so naïve as adults assume? A related goal is to indentify (groups of) teenagers that are vulnerable to Internet risks. Furthermore, I want to investigate the influence of online media on self-disclosure. On the basis of these results teenagers can be assisted (by interventions) in avoiding undesired contacts and compromising situations.

Central to the research is the subject of perceived similarity between social networkers on the Internet: does it influence behavior concerning self-disclosure and lead to danger? The research also examines the moderating effect of socio-demographic factors (sex, age and educational level of the teenagers, as well as the educational and occupational level of their parents), the frequency of their Internet and computer use, digital skills, attitudes concerning the Internet and parental mediation.

The general context: teenagers on the Internet

The Internet is an important part of the daily life of teenagers (Duimel & De Haan, 2007). It is a source of entertainment and a crucial link in communication (De Haan & Pijpers, 2010). Among European 6-to-18-year olds 75% uses the Internet; in The Netherlands this is even higher: 93% (Livingstone & Haddon, 2009a). Teenagers are fervent users of the Internet for social contacts, entertainment and education (Duimel & De Haan, 2007) and value its potential for communication and networking (Hasebrink, Livingstone, Haddon, & Ólafsson, 2009). The Internet plays a great role in forming and maintaining social contacts, for example through *instant messaging*, programs with which teenagers chat to others on their personal contact list (Duimel & De Haan, 2007). Instant messaging tools are remarkably widespread among European children (Kalmus, Runnel, & Siibak, 2009).

Another way in which teenagers form and maintain social contacts is through social networking sites (Duimel & De Haan, 2007). These can be defined as "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system; (2) articulate a list of users with whom they share a connection; and (3) view and traverse their list of connections and those made by others within the system" (boyd & Ellison, 2007). The common aim of social networking sites is to enable teenagers to communicate with other people from their extended network. Although earlier web-based social applications were based on creating online-based ties, social networking sites encourage activating already existing offline ties (Ellison, Steinfield, & Lampe, 2007; Haythornwaite, 2005; Valkenburg, Schouten, & Peter, 2006). In the recent past, many teenagers have started to use such sites, for instance MySpace, Facebook and, in The Netherlands, the Dutch site Hyves. This is a widespread phenomenon across Europe among people aged 15 years and older. The majority of young Internet users is quite active on social networking sites (Peter, Valkenburg, & Fluckiger, 2009).

Internet opportunities and risks.

The research network of EU Kids Online that examines the safety of new media and Internet use of youth categorizes Internet risks and opportunities in three communication modes: *content*, *contact* and *conduct*. *Content* (one-to-many communication with the child as a recipient) concerns opportunities such as educational resources but also problematic content, for example exposure to pornographic or violent material. *Contact* regards adult-to-child communication with the child as participant in an interactive situation predominantly driven by adults. Contact concerns opportunities like social networking but also risky contacts resulting to e.g. bullying or grooming. *Conduct* refers to peer-to-peer communication where the child may be initiator or perpetrator in an interaction and includes opportunities for the expression of identity but also problematic conduct such as bullying and creating or uploading pornographic material (Livingstone & Haddon, 2009b).

The proliferation of Internet use among children causes mixed feelings among adults. On the one hand, young people are seen as experts in a new virtual world and online social life. The Internet is ubiquitous: for example, children use instant messaging to communicate with their friends and make appointments but also to share photographs, music files or information for school (Depandelaere, Gabriels, Huylenbroeck, Jonckheere, & Jutten, 2006). Moreover, the use of online technologies is thought to have positive effects on performance, social participation and social involvement (De Haan, 2010a). Use of instant messaging and social networking sites can be seen as a new opportunity for the social development of adolescents. It can be particularly useful for community building among peers, expanding social contacts and preparing for future relationships. Furthermore, it offers new opportunities for shy children to overcome their social fears (Valkenburg, Schouten, & Peter, 2005).

However, there are also concerns with children's Internet use. Young people are vulnerable for the new dangers of online environments, for example distribution of privacy-

sensitive movies (Duimel & De Haan, 2007) and *cyberbullying* (Walrave & Heirman, 2009). They are also exposed to pornographic and violent images and other information deemed undesirable by their parents (Livingstone & Haddon, 2009a). Parents often have more difficulty in monitoring and controlling the online experiences and behavior of their children than their real-life counterparts. Such negative views are not restricted to online environments only: there have been also concerns about the so-called *MySpace generation* that uses these social networking sites. This generation is thought to be narcissistically obsessed with digital self-presentation, prefer the quantity over the quality of friendships and lack any sense of privacy in public disclosure of intimate information (Hinduja & Patchin, 2008; Livingstone, 2008).

In the analytic framework of EU Kids Online opportunities and risks of the Internet are influenced by access, use and skills in a mutually reinforcing way. On the level of the individual, opportunities and risks vary with age, sex and the socio-economical status of the child. This level also includes the roles of parents, teachers and peers in the opportunities and risks faced by children (Livingstone & Haddon, 2009b).

Risky self-disclosure

In this research, risky self-disclosure is disclosure of information about oneself that can lead to undesirable experiences. There is a difference between risk as a probability of harm and harm itself (Lüders, Brandzæg, & Dunkels, 2009). As soon as teenagers enter the Internet, there is always a risk of undesirable experiences but not all teenagers who engage in risky online behavior experience negative consequences of their behavior. For instance, it is possible to have positive or negative experiences with meeting strangers. However, in a number of countries 15% to 20% of the teenagers who go online report experiencing a certain degree of fear, uncomfortable feelings or even threat. This suggests that they may have experienced harm from their risky online activities (Livingstone & Haddon, 2009a).

My research investigates risky self-disclosure *to online social contacts*, that is, personal or intimate information that teenagers deliberately give to others –not unintentionally by e.g. putting it on a personal website. I distinguish between three levels (steps) of risky self-disclosure. The first is *disclosure of personal information by which one can identify and locate a person in real life* (e-mail, telephone number, address etc.). This is the most frequent of all risky online behaviors. About half of the teenagers who enter the Internet disclose personal information (Livingstone & Haddon, 2009a). Young people see only the social and personal advantages of that and do not expect the associated risks (Lüders, 2009b).

The second step is *disclosure of personal and intimate information, primarily visual*, i.e. photographs and videos (including live webcam feeds), which can be sexually tinted or not. An example of this is *webcam sex* (i.e. showing sexual behavior before the webcam) where teenagers *literally* expose themselves. Results from a research by the Dutch Expert Centre on Sexuality (Rutgers Nisso Groep) show that 10% of the boys and 5% of the girls have had *cybersex:* sex with someone on the Internet (De Graaf & Vanwesenbeeck, 2006). A survey conducted by the Dutch online community goSupermodel shows that almost 6% of the teenage girls who uses a webcam say that they have 'done something' under psychological pressure, e.g. undress in front of the camera. More than 10% of the girls have regrets about a webcam session where they said, did or saw something they did not want to (Sip, 2010).

The final step is *physical disclosure*: meeting online acquaintances in real life. Although not every meeting with acquaintances from the virtual world in the physical world is dangerous, the risk of an undesirable experience cannot be ruled out. In Europe only 9% of teenagers active online have had such meetings. In Poland, Sweden and the Czech Republic it is 20% (Livingstone & Haddon, 2009a). In The Netherlands 18% of the interviewed boys and 12% of the girls had a date with someone they met on the Internet, while10% of the boys and 5% of the girls reported to have had sex with them (De Graaf & Vanwesenbeeck, 2006).

The characteristics of online communication that appear to lower the thresholds of finding, contacting and interacting with others have led to fear for the risk of dangerous encounters, mostly with adults with bad intentions. A likely scenario is that a sexual predator takes advantage of a child that displays vulnerability online. The predator offers understanding and support so as to build a manipulative relationship with the child, a process called *grooming*. After completion of this process, the child meets the predator in real life, even if aware of the sexual intention of the adult. In such cases, communication takes place in increasing steps: from initial and often anonymous meetings in chat boxes to mobile phones and face-to-face meetings (Lüders, et al., 2009). These steps fit with the three levels of risky self-disclosure considered in this research: from giving personal information to visual material to meeting in real life.

Contact on social networking sites

Social networking sites support different kinds of communication. First of all, there is the website, which contains information about the owner of the profile. This can be personal information (including e-mail address as well as interests and hobbies but even intimate information in weblogs or in communication with others) and visual information (mostly photographs). The way in which individuals present their identity to others is referred to as self-presentation. This concept is related to self-disclosure, which is the extent to which individuals communicate intimate information about themselves to others (Valkenburg & Peter, 2010). On social networking sites Internet users can view the profile of another user and react to it, e.g. contact the owner online through the networking site's messaging or chat facilities (which can be private or public) to report common interests and values. Such contacts can develop further via the same messaging and chat facilities but also using general e-mail or instant messaging environments. These facilities and environments form the focus of this research because they allow personal, one-to-one communication through which young

people get to know each other online and eventually meet each other in real life (Lüders, 2009a) in a sequence of steps that echoes the self-disclosure levels described above.

The example of the Breezer chick lurers illustrates how such contacts can go wrong and transform innocent discussions and the possibility of making new friends into risky self-disclosure but even without manipulation teenagers can be tempted to reveal personal and intimate information in social networking environments. The same example shows the importance of perceived similar interests and favorite things in getting in touch and forming a rapport with young people. In online communication, it is easier to appear similar than in real life. Teenagers who believe that another person on the Internet is like them are more likely to trust this person, something that may lead to risky self-disclosure. This process depends on social comparison processes. Perceived similarity has been found to play an important role in social comparison. An issue I want to address through this research is the role perceived similarity can play in stimulating communication and lowering young people's defenses with respect to disclosure on the Internet. Before considering the application of social comparison processes in online environments, it is important to understand how these processes work in general.

Social comparison

In a social situation, i.e. in the direct or indirect presence of another person, people spontaneously compare themselves to others. This social comparison has an impact on self-evaluation. Although people prefer to use objective, non-social standards in order to evaluate themselves, in the absence of such objective standards they do it by comparison with others (Festinger, 1954). The classical theory assumed that if these others are too different it is not possible to accurately estimate one's abilities and opinions. Later, evidence was found for the self-enhancement motive of social comparison, namely that social comparison also serves to protect or enhance one's self-esteem and improve one's skills or abilities (Collins, 1996,

2000). Currently the consensus is that individuals are not objective and unbiased in their comparison processes and do not always seek for accurate appraisals. The concept of social comparison theory has become broader and includes "any process in which individuals relate their own characteristics to those of others" (Buunk & Gibbons, 2000).

The divergence of consequences of comparison is caused by a selective increase in the accessibility of different subsets of target knowledge – accessibility being the extent to which information can be retrieved from memory (Ashcraft, 2006). The more accessible a piece of information is, the more likely it is to influence judgment (Mussweiler, 2003). When an individual is confronted with a relatively similar comparison standard (like an *in-group* member), knowledge indicating similarities between the self and the standard is activated (Mussweiler & Bodenhausen, 2002; Mussweiler & Strack, 2000). The activated knowledge serves as a bias for self-evaluation and this in turn results in assimilation. The reverse happens with a relatively dissimilar standard (such as an *out-group* member): the activated knowledge indicating dissimilarities leads to contrast.

Social induction of affect. Interaction with others not only has an impact on behavior and thoughts, it can also influence people´s affective state. Just by watching someone laugh, you can start to feel better yourself. In psychological terms this is called a social induction of affect (McIntosh, Druckman, & Zajonc, 1994). Psychological research has paid a lot of attention to this phenomenon, especially under the label of emotional contagion or mood contagion. The common explanation assumes that people unconsciously imitate the facial expressions of the other person, which elicits the same affect in them. People can also experience the opposite emotional state of that of the model, a discordant affect (McIntosh, et al., 1994). For example, seeing someone that you do not like laugh when you are busy with other things can make you feel annoyed or angry. This phenomenon is called *countercontagion* (Hatfield, Cacioppo, & Rapson, 1992, 1994). In order to explain which

mechanisms predict concordant or discordant affective states, social comparison was linked to emotional contagion (Epstude & Mussweiler, 2009). The argument was that, as social comparison constitutes a major determinant of information accessibility, it may also influence evaluations of one's own affective state.

Priming similarity.

Epstude and Mussweiler reasoned that, if socially induced affect is indeed influenced by comparisons, the psychological mechanisms that underlie social comparisons may also apply to socially induced affect (Epstude & Mussweiler, 2009). Perceived similarity between a target and a comparison standard critically determines how a comparison is carried out and its consequences (Mussweiler, 2001, 2003; Mussweiler & Strack, 2000; Ruys, Spears, Gordijn, & De Vries, 2008; Ruys, Spears, Gordijn, & De Vries, 2006).

Priming techniques can manipulate whether someone focuses primarily on similarities or dissimilarities. These techniques induce a person to selectively search for information indicating either similarity or dissimilarity (Mussweiler, 2001; Mussweiler, Rüter, & Epstude, 2004). The direction of the judgmental outcome of social comparison is influenced by the kind of information that is activated by a participant. By procedurally priming participants to search for similarities they assimilate to a standard, while priming them to search for differences causes participants to contrast away from a standard (Mussweiler, 2001).

Using this technique Epstude and Mussweiler examined whether the occurrence of concordant and discordant affective reactions is influenced by a similarity versus a dissimilarity focus (Epstude & Mussweiler, 2009). They asked participants to write down all similarities or all differences between two sketches. Participants who were asked to pay attention to the similarities showed concordant affective reactions when seeing photographs of persons (which were affectively neutral, negative of positive). When participants were asked to pay attention to dissimilarities, they displayed discordant affective reactions to the

photographs. The same effect was found in a study with auditory stimulus material: participants listened to an audio recording in which a person spoke in a slightly positive or slightly negative mood. Similar techniques could also be used (or abused) in online presentations and communication, in order to facilitate the development of rapport and trust leading to risky self-disclosure.

Another example suggests that a comparison standard does not actually have to be similar to cause assimilation: even highly attractive models have been found to lead to assimilation in self-evaluation (i.e. feeling more attractive yourself). When headlines in advertising campaigns highlight similarities (e.g. 'Same body – Same feeling') people were found to assimilate toward the model. Reversely, headlines highlighting dissimilarities (e.g. 'Feel the difference!') resulted into contrast (Häfner, 2004). This suggests that initially perceived similarities predict the direction of consequent comparison processes, even when they do not reflect actual similarities that are inherent to the comparison standard.

The experience of ease or difficulty of a judgment has also been found to influence the direction of social comparisons. Easy processing of a comparison standard directly led to assimilative comparisons, while difficulty with processing led to contrast. Interestingly, this effect only occurred when this manipulated ease experience was felt as a background during or right before the standard perception (Häfner & Schubert, 2009). In the same way, the apparent ease with which information on profiles in social networking site environments can be processed may induce assimilation processes in social comparison.

Natural cues of similarity.

Category membership. In order to find out the influence of natural cues associated with similarity or dissimilarity to the perceiver, Epstude en Mussweiler made gender the salient intergroup context by asking participants to read a text about the rivalry between men and woman. They found that observing someone of the same gender –an in-

group member– produced a congruent mood state in the perceiver and perceiving someone of the opposite gender –an out-group member– induced an incongruent mood state in the perceiver. Seeing a happy in-group member led to a better mood in the perceiver, whereas seeing a happy out-group member led to a decrease in the perceiver's mood. This suggests that emotions of in-group members are adopted, in contrast to emotions of out-group members. Epstude en Mussweiler concluded that shared versus unshared category membership works as a potential moderator of socially induced affect because category memberships are one of the primary ways in which people determine similarity to others. People are more likely to share the emotions of an in-group member because they are more likely to focus on similarities with this person (Epstude & Mussweiler, 2009). These effects indicate a possible role of group pages on social networking sites, which may lead to feelings of common identity and consequently rapport and trust, with possible risky effects.

Liking.   The extent to which the observer likes the model also influences socially induced affect. The effect of liking on the social induction of affect seems to be fairly strong (Bush, McHugo, & Lanzetta, 1989). Disliking another person makes people prone to discordant affective reactions – it inhibits the process of affect induction (McHugo, Lanzetta, Sullivan, Masters, & Englis, 1985). Seeing an opponent causes discordant affective reactions. This can be explained by dislike for the opponent but also by that the opponent is perceived as belonging to the out-group and thus dissimilar.

Compliance.   People like others who are similar to them (Burger, Messian, Patel, del Prado, & Anderson, 2004), whether this similarity is in the area of opinions, personality traits, background or lifestyle (Cialdini, 2009). Many studies have shown that similarity is one of the main predictors of social attraction (Berscheid & Reis, 1998). When people like another person, they are more likely to comply with a request by this person. Similarity can therefore be simulated by a requester in order to establish liking and consequently increase the

likelihood of compliance (Cialdini, 2009). On the Internet perceived similarity could induce liking and consequently compliance with requests, for instance for personal information such as a phone number or even undressing before the webcam.

Perceived similarity on social networking sites.

Information and communication through social networking sites. The following characteristics of social networking sites may reinforce risky online self-disclosure in teenagers because they bring out or increase perceived similarity between users, inducing feelings of good rapport:

Reduced auditory and visual cues. Online communication is often characterized by reduced or absent audiovisual information (Valkenburg, et al., 2006). Reduced auditory and visual (i.e. nonverbal) cues may stimulate similarity (Schouten, Valkenburg, & Peter, 2009). Compared to computer-mediated communication partners, face-to-face communication partners have more access to nonverbal cues (clothing, accent, physical appearance etc.) which often uncover interpersonal differences. In computer-mediated communication, people are forced to focus on whatever cues are available. This may result in an over-reliance on available cues (Spears & Lea, 1992; Walther, 1996) and cause people to feel more similar (Coleman, Paternite, & Sherman, 1999; Dubrovsky, Kiesler, & Sethna, 1991; Spears, Postmes, Lea, & Wolbert, 2002; Walther & Parks, 2002).

Although it is often hypothesized that online communication enhances feelings of similarity (Spears, et al., 2002; Walther, 1996), it has rarely been tested (Dubrovsky, et al., 1991). In one of the few studies, enhanced feelings of similarity between computer-mediated communication partners compared to face-to-face partners were not found (Schouten, et al., 2009). An explanation could be that the sample consisted mainly of communication science students, which caused them to already feel too similar to cause differences between online and face-to-face communication. According to Lee, visual cues are not enough to simulate

perceptions of similarity; perceived similarity in computer-mediated communication can only be accomplished by including specific cues that increase similarity in the setting (Lee, 2004). An interesting question would be whether *cue-triggered similarity* results in less or more intimate self-disclosure between partners in computer-mediated communication compared to face-to-face because feelings of similarity enhance self-disclosure (Brockner & Swap, 1976). Cues that trigger similarity may cause people to see each other as typical members of the same group (Schouten, et al., 2009), which also increases feelings of similarity.

Prefabricated design. Social networking sites are characterized by a high level of user-friendliness. Adolescents can quickly create a profile of themselves and they can personalize their profile by uploading user-generated content like photographs or messages (Peter, et al., 2009). Many social networking sites are *prefabricated*: they use interfaces that allow users to compile content and structure out of the same ready-made components. This requires far fewer skills than html or editing software like FrontPage. Prefabricated websites can be compared to furnishing a house: the house is already built and has only to be furnished to the occupant's taste. With prefabricated websites people can adjust a website with photographs, texts, messages, backgrounds, and more (Duimel & De Haan, 2007). As a consequence of prefabrication, the owners of profiles may appear to more similar than they would have been if they had created the website themselves. For example, the Dutch social networking site Hyves offers a list of interests and hobbies from which users can choose what to show on their personal profile. Such predefined options for self-presentation may reinforce apparent similarity compared to when users have to think of interests and hobbies themselves.

Self-categorization. The enhanced feelings of similarity in online communication may also be caused by how social networking sites are used by teenagers. Identity construction on social networking sites is also in part social identity construction. By means of self-categorization it brings along the internalization of attributes and the status of a group

(Hogg, 2003). Social networking sites are often place-markers in a social group rather than true self-portrayals (Fluckiger, 2008; Livingstone, 2008). Identity-related information is used to reinforce or improve one's standing in a group, for example through the use of insider jokes (Livingstone, 2008; Manago, Graham, Greenfield, & Salimkhan, 2008), which are inaccessible to out-group members and, hence, reaffirm one's position within the in-group (Peter, et al., 2009). This emphasis on group identity (directly or indirectly, e.g. through insider jokes) in presentations may reinforce perceived similarity in recipients of this information, for example another person of the in-group.

On group pages of social networking sites such as Hyves and Facebook users can also form an online network in which membership is based on common activities, interests or beliefs. The sometimes arbitrary theme that creates an interest group causes self-categorization beyond predefined choices and group definition based on a minimal number of common characteristics. This is illustrated by the names of these group pages: ranging from 'Stop cancer now' and 'Holidays' to 'I love to sleep until late' and 'I hate mosquitoes'.

Simulating similarity on social networking sites. Even without bad intentions, the limitations and structure of social networking sites stress similarity by presenting mostly cues that do not indicate individual differences, often focusing on group membership. With bad intentions it can go even further. The example of the Breezer chick lurers illustrates the relative ease with which similarity can be simulated in an environment such as social networking sites and instant messaging. Some characteristics of social networking sites may aid people –possibly malevolent people– in presenting themselves differently from reality.

Reduced visual and auditory cues. In online communication the receiver of the information has access to less audiovisual cues, so the sender can easily hide or accentuate specific personality characteristics (Valkenburg, et al., 2006). This can encourage or aid users

to present themselves differently from reality, for example obscure age differences or pretend that they share interests even if they know very little about them.

Prefabricated design. Prefabricated websites can guide people in expressing but also masking themselves or their personality and compensate a possible lack of knowledge (by presenting them with a list of options). For example, an adult who tries to appear as a teenager can easily make a typical profile of a teenager by choosing options from a list of interests and hobbies that are all popular with young people or by copying from other users and thus look like a teenager. Additionaly, symbols and jargon, e.g. *smileys* and abbreviations, but also other visuals that are popular with teenagers, can give the impression of a young person. As the Breezer lurer writes: "For example, put soap bubbles around your head and use nice colors. We call this the Lure-Photos. … Choose a name that appeals to simple Breezer chicks. My favorite is C@mHunk."

Control of self-presentation and communication. Although some sites include synchronous internet applications, such as instant messaging applications, the prevailing asynchronous character of most social networking sites increases controllability of self-presentation (Peter, Valkenburg, & Fluckiger, 2009). This is in general a positive factor that allows reflection and better expression but it can also be helpful in case of deception through simulation. The possibility to reassemble or manipulate the content on the profile further increases the controllability of self-presentation (Peter, Valkenburg, & Fluckiger, 2009), for example by self-categorization. This aids users to fine-tune their presentation in response to specific contacts on the basis of general experiences, e.g. it allows malevolent people to improve their masking and luring techniques.

From perceived similarity to risky self-disclosure

Offline theories: a summary. Perceived similarity is a powerful cause of assimilation, possibly leading to close rapport (even liking), feelings of belongingness and

trust. This research focuses on the liking and trust emerging from perceived similarity. Through the induction of affect it is possible that the receiver falls prey of initially implicit intentions. In particular, liking a person on the basis of perceived similarity can lead to compliance with extreme requests, for example related to self-disclosure. In this research I investigate if perceived similarity causes risky self-disclosure in online communication.

Online theories

Hyperpersonal communication theory. According to Walther's hyperpersonal communication theory, the reduced auditory and visual information in online communication encourage people to feel less inhibited and to disclose inner feelings or intimate aspects of themselves at an earlier stage (Walther, 1996). These reduced nonverbal cues also characterize social networking sites and may encourage adolescents to present information that would be inappropriate and embarrassing in face-to-face communication (Peter, et al., 2009). This effect is sometimes explained by the *stranger-on-the-train* phenomenon, which states that people sometimes expose intimate information more easily to a stranger sitting next to them in the train or airplane (Valkenburg, et al., 2006). The reduced visual and auditory cues of online communication and especially the resulting anonymity are assumed to stimulate interpersonal attraction (Walther, Slovacek, & Tidwell, 2001).

Uncertainty reduction theory. Related to this is Berger and Calabrese's uncertainty reduction theory. It states that the primary concern of strangers is to reduce uncertainty and increase predictability in the behavior of the interaction partner by using three types of uncertainty reduction strategies: passive (e.g. social comparison), active (e.g. by asking others) and interactive strategies like direct questioning (Berger, 1979). Because of reduced nonverbal cues in online communication many passive and active uncertainty reduction strategies are impossible to deploy. People are forced to use interactive uncertainty reduction strategies (Tidwell & Walther, 2002). Self-disclosure can be seen as an information-

seeking strategy because it usually elicits the same from the other person (Berger, Gardner, Parks, Schulman, & Miller, 1976). Furthermore, as a consequence of direct questioning, communication partners may feel privileged by this interest, which stimulates liking.

    Perceived similarity, self-disclosure and liking on the Internet. Research has consistently demonstrated that computer-mediated communication stimulates intimate self-disclosure (Joinson, 2001; Tidwell & Walther, 2002), "the disclosure of intimate information about oneself" (Derlega, Metts, Petronio, & Margulis, 1993). This includes the following subjects: feelings, worries, secrets, being in love, sex, moments in their lives they feel embarrassed about and moments in their life they feel guilty about. Intimate self-disclosure by teenagers has been found to occur more in online than in face-to-face communication, a relationship mediated by direct questioning (Schouten, et al., 2009). Computer-mediated communication results in more self-disclosure and direct questioning, which in turn increases liking (Antheunis, Valkenburg, & Peter, 2007). Intimate self-disclosure is not always risky behavior. However, it can increase the risk of interpersonal attraction and rapport, for example in grooming, where eliciting intimate information is used by a malevolent adult to inspire the child's confidence.

    It should be noted that social networking sites offer more auditory and visual cues and are relatively more open than text-based online communication environments. They allow people not only to use interactive uncertainty reduction strategies such as direct questioning or self-disclosure but also passive strategies such as observation. Social networking sites usually encourage users to disclose a great deal of information about themselves (through pictures, videos and self-descriptions). This information can be used by others to reduce uncertainty and form impressions of the target person. Social networking sites also provide users with possibilities for active strategies such as asking others for information about the target person. Research suggests that people use all three uncertainty reduction strategies. On social

networking sites, passive strategies are the most popular, followed by interactive and active strategies. However, only the interactive uncertainty reduction strategy were found to reduce the information seeker's level of uncertainty (Antheunis, Valkenburg, & Peter, 2009).

Many studies have focused on the socio-emotional part of interpersonal attraction: *liking* (McCroskey & McCain, 1974). Research has shown that online communication increases liking: higher levels of intimate self-disclosure in computer-mediated communication result in higher levels of interpersonal attraction (Antheunis, et al., 2007). As intimate self-disclosure increases liking, it follows that self-disclosure would seem less risky and could be repeated without inhibition. Similarity has also been shown to increase interpersonal attraction in online communication (Antheunis, et al., 2009).

Risks and their causes: research into first impressions and initial reactions among Dutch teenagers

In order to understand why teenagers give personal, even intimate or confidential information more easily on the Internet, or why teenagers meet strangers they know from the Internet in real life, the main goal of this research is to investigate how teenagers react to information indicating similarities on social networking sites and to identify factors that influence such risky behavior. In order to investigate this, I conducted two studies: an explorative and an experimental study. The main question of Study 1 is whether maintaining a profile on a social networking site is related to meeting online contacts in real life and which factors (e.g. digital skills or age) influence this relation. The main question of Study 2 is whether a focus on similarity in online communication results in a higher tendency for risky self-disclosure and if the factors identified in Study 1 have a bearing on this influence.

Study 1

Introduction

Social networking sites and meeting strangers. Study 1 examines the association between maintaining a profile on a social networking site and one type of risky online self-disclosure by teenagers: physical self-disclosure, i.e. meeting online contacts in real life. I expect that teenagers who maintain a profile on a social networking site, get acquainted with someone on the Internet more often than teenagers who are not active on such sites. I therefore expect that they also meet online acquaintances in real life more often and, consequently experience undesirable situations in such meetings more frequently than teenagers without a profile. Another question this study addresses is whether these relationships also apply to other activities on the Internet: maintaining a web photo album, a weblog and a personal homepage.

Possible moderators of the association between maintaining a profile and meeting strangers. This study also explores several factors, mostly derived from recent findings of EU Kids Online, which may influence how teenagers process information they receive on the Internet, including information that suggests similarity between the teenager and the sender. These factors are expected to moderate the association between activity on social networking sites and physical self-disclosure.

First, high use of the Internet is rarely if ever associated with low risk (Livingstone & Haddon, 2009b). Logically, intensive Internet use results into more possibilities for teenagers to encounter Internet-related risks. Consequently, I expect that teenagers who are frequent Internet users and who maintain a profile are more likely to have met a stranger than teenagers who are less frequent Internet users and maintain a profile.

Second, although they have received little attention, digital skills are likely to help children protect themselves from online risks (Livingstone & Haddon, 2009b). Therefore, I

expect that less skilled teenagers who maintain a profile are more likely to meet strangers than teenagers with such skills. Digital skills can be divided into *instrumental*, *structural* and *strategic skills*. *Instrumental skills* concern simple basic actions on the computer (such as moving the mouse), the capacities to operate a computer and use popular programs (e.g. Internet search engines, e-mail clients and word processing software) but also more technical skills such as installing a new version of Windows or replacing a hard disc. These can be helpful in many situations but other skills may play a more important role in dealing with possibly unreliable contacts. *Structural skills*, i.e. being able to handle and judge information, concern the new structure in which information in contained, for example looking for dynamic information (e.g. discussion sites instead of static information on websites). *Strategic skills* concern the basic readiness to pre-actively look for information, the attitude of taking decisions based on available information and the continuous scanning of the environment for information that is relevant to work or personal life (Steyaert, 2000).

Third, I expect that attitudes concerning the Internet influence the relation between activity on social networking sites and meeting strangers. For teenagers who hold positive attitudes concerning the Internet, maintaining a profile is expected to be more strongly related to meeting strangers than for teenagers who hold less positive attitudes. For example, if teenagers think that using the Internet for contact with friends has a positive influence on young people's social lives, they may be more active on social networking sites. By extension, this attitude would make teenagers more susceptible to risky contact with strangers. However, if teenagers believe that young people reveal private information too easily online, this may influence how much they disclose about themselves and consequently reduce disclosure-related risks on the Internet and even the risk of physical self-disclosure.

A fourth factor is parental mediation. In most European countries there is little evidence regarding parental practices. Overall, parental concern for the online safety of their

children is high and parents use various strategies for mediating their children's online activities: imposing rules and restrictions; social approaches (watching, sharing, talking about the Internet with their children); using technical tools (filtering, monitoring) (Livingstone & Haddon, 2009b). An analysis of the impact of different strategies (talking, setting rules and restriction, using software) across 18 countries confirms the significance of parental mediation, although it may be difficult to say which strategies work best (Lobe, Segers, & Tsaliki, 2009). Children in countries where parental mediation strategies are weak or absent encounter more risk on the Internet. Therefore, I expect that the association between maintaining a profile and meeting strangers is stronger for teenagers who report low parental mediation (rules at home for computer and Internet use; parental awareness of their children's activities; parental warnings for dangers on the Internet; contact between children and parents) compared to teenagers who report high parental mediation.

Furthermore, I expect socio-demographic factors to influence the association between maintaining a profile on a social networking site and meeting strangers. Boys appear more likely to encounter (or create) risks related to *conduct* and girls seem more affected by *content* and *contact* risks. These gender differences are likely to be mainly unintended consequences of different preferred online activities of boys and girls (Livingstone & Haddon, 2009b). In line with this, 46% of the girls compared to 26% of the boys have been found to maintain a profile on a social networking site (Duimel & De Haan, 2007). I expect that the association between maintaining a profile and meeting strangers is stronger for girls than for boys.

Although younger teenagers (14 to 16 year old) have been found to have a profile more often than older teenagers (17 to 18 year old) –respectively 38% and 29% (Duimel & De Haan, 2007)– older teenagers appear to encounter more online risks than younger children (Livingstone & Haddon, 2009b). I expect that the association between maintaining a profile and meeting strangers is stronger for older teenagers than for younger teenagers.

Last, research suggests that children of a lower social class are more exposed to online risks than children with higher status parents (Livingstone & Haddon, 2009b). Additionally, among teenagers with a lower educational level (*vmbo*) 42% maintains a profile, compared to 35% (*havo*) and 32% (*vwo*) of teenagers with a higher educational level. Therefore, I expect that the relation between maintaining a profile on a social networking sites and meeting strangers is stronger for teenagers with a lower educational level and parents with a lower educational level and occupation relatively to teenagers with a higher educational level and parents with a higher educational level and occupation.

Method

Data collection. The basis of the study was the data used in *New links in the family* by the Netherlands Institute for Social Research (SCP). The data were collected in October and November of 2005 by the VU University Amsterdam in the framework of the research project Youth and Culture, in which the SCP participated. They included two questionnaires, one on culture and one on computer use, both filled in by teenagers and their parents. The data used in this study came from the questionnaire on computer use that was filled in by teenagers.

Participants. The sample consists of 1561 pupils (777 male, 759 female and 30 of unknown sex) aged between 13 and 18 years. The participants were recruited from 69 Dutch schools located in two large cities (Rotterdam and Utrecht), eight medium-sized cities (Amersfoort, Alkmaar, Gouda, Haarlem, Delft, Enschede, Zwolle and Nijmegen) and four smaller municipalities (Emmeloord, Steenwijk, Goes and Weert). All school levels (*vmbo*, *havo* and *vwo*) are evenly represented in the sample.

Results

Social networking sites and meeting strangers. An analysis of variance showed that maintaining a profile on a social networking site is significantly related to getting acquainted with people on the Internet, $F(1, 1448) = 45.97$, $p = .00$. Teenagers with a profile

reported more often (M = 1.67, SD = 0.47) that they had made new friends on the Internet compared to teenagers without a profile (M = 1.48, SD = 0.50). This confirms the expectation that teenagers who are active on social networking sites more often make new friends on the Internet. More importantly, results showed an association between maintaining a profile and having met an online friend in real life, $F(1, 805) = 18.53$, $p = .00$. Teenagers who maintained a profile reported more often to have met an online contact in real life (M = 1.85, SD = 0.36) than teenagers without a profile (M = 1.73, SD = 0.45). However, teenagers with a profile on a social networking site did not experience undesirable moments during meetings in real life more often than teenagers without a profile.

Interestingly, the same relations were also found for maintaining a photo album on the Internet. Maintaining a web photo album was related to making online friends, $F(1, 1448) = 53.80$, $p = .00$. Teenagers who maintained a web album reported more often (M = 1.64, SD = 0.48) that they had made new friends on the Internet compared to teenagers who did not maintain a web photo album (M = 1.47, SD = 0.50). Maintaining a web photo album was also related to having met online friend in real life, $F(1, 804) = 16.35$, $p = .00$. Teenagers with a web photo album reported more often (M = 1.84, SD = 0.37) that they had met online friends offline than teenagers without a web photo album (M = 1.71, SD = 0.45).

Moderators of the association between maintaining a profile on a social networking site and meetings strangers. Several factors were found to influence the association between maintaining a profile and meeting offline contacts online, namely computer and Internet use, digital skills, attitudes concerning the Internet, sex and age. These factors (excluding sex) were transformed into standardized scores. In order to avoid a median split on these factors and to retain the continuous character of these variables, regression analyses (General Linear Model) were conducted.

Frequency of computer use was based on 19 items on computer use and activities on the Internet, such as use for homework, editing photographs, e-mailing, searching practical information, downloading music or discussing in a forum ($\alpha = .81$), and was found to reinforce the relation between maintaining a profile and meeting online contacts offline, $F(3, 755) = 4.49$, $p = .03$. Participants with a high score on frequency of use (participants with a profile: M = 1.86, SD = 0.02; participants without a profile: M = 1.82, SD = 0.03) more often than participants with a low score on frequency of use (participants with a profile: M = 1.80, SD = 0.04; participants without a profile: M = 1.62, SD = 0.03) reported that they had met a online friend offline.

Second, digital skills influenced the relation between having a profile on a social networking site and meeting online friends in real life. The skill to replace a paragraph inside a story was found to influence this relation. Results showed a significant main effect of the skill to install a hard disc inside the computer, $F(3, 611) = 6.23$, $p = .01$. Participants who said that they mostly find what they are looking for with a search engine reported more often that they had met an online contact offline (participants with a profile: M = 1.90, SD = 0.03; participants without a profile: M = 1.75, SD = 0.03) compared to participants who said they less able with Internet searches (participants with a profile: M = 1.81, SD = 0.03; participants without a profile: M = 1.67, SD = 0.03). Participants who said they could rotate a picture reported more often (participants with a profile: M = 1.88, SD = 0.03; participants without a profile: M = 1.77, SD = 0.03) than to participants who said they were not able to do the rotation (participants with a profile: M = 1.80, SD = 0.03; participants without a profile: M = 1.70, SD = 0.03) that they had met an online friend in real life, $F(3, 751) = 4.57$, $p = .03$.

Third, the belief that young people who use the Internet for contact with their friends have a better social life than young people who do not also had a main effect on meeting strangers, $F(3, 754) = 4.05$, $p = .05$. Participants with a high score on agreement with this

statement reported more often that they had met an online contact offline (participants with a profile: M = 1.86, SD = 0.03; participants without a profile: M = 1.78, SD = 0.03) compared to participants with a low score on agreement (participants with a profile: M = 1.84, SD = 0.03; participants without a profile: M = 1.68, SD = 0.03). Effects of other Internet-related attitudes were not found.

Fourth, gender showed a main effect on meeting online friends in real life, $F(3, 794) = 4.64$, $p = .03$. Boys reported more often that they had met an online contact offline (M = 1.80, SD = 0.40) compared to girls (M = 1.77, SD = 0.40), which indicates that the association between having a profile and meeting online friends in real life is stronger for boys than for girls.

Fifth, age also showed a main effect on meeting online friends offline, $F(3, 785) = 5.25$, $p = .02$. Older teenagers reported more often that they had met an online contact offline (participants with a profile: M = 1.90, SD = 0.03; participants without a profile: M = 1.74, SD = 0.03) than younger participants (participants with a profile: M = 1.78, SD = 0.03; participants without a profile: M = 1.71, SD = 0.03). Effects of the educational level of the teenager and parental influences concerning computer and Internet use were not found.

Discussion

The results of Study 1 confirm the expectation that maintaining a profile is associated with meeting online contacts in real life. This was also found for maintaining a web photo album, which suggests that the same processes leading to risk may apply to the environment of photo sharing sites too. However, maintaining a profile or a web photo album was not related to more negative experiences with meeting online contacts offline. Study 1 also shows that the relationship between maintaining a profile and meeting online contacts in real life is indeed influenced by more frequent computer use, digital skills, a positive attitude concerning the Internet as a medium for contact with friends, sex and age.

However, for boys the association between maintaining a profile on a social networking site and meeting online friends in real life was found to be stronger than for girls. A possible explanation is that boys have a higher tendency for risk taking. Another possible explanation may be that girls are ashamed to report negative experiences. The association between maintaining a profile and meeting strangers was found to be reinforced by a higher score on digital skills. This unexpected result may have come because the scale mainly concerned instrumental and structural skills, which may not be related to risks as much as so called *social skills* (De Haan, 2010b). Social skills or *netiquette* concern knowing in what circumstances and to whom one can give out personal information. These skills may be more important in risky self-disclosure. Results also do not indicate a moderating influence of parental mediation, educational level of teenagers, and their parents' educational and occupational level.

Computer use, skills, attitudes, sex and age seem to represent dominant themes in Internet risks, specifically with respect to physical self-disclosure. I assume that these factors play a role in the processing of information teenagers receive on social networking sites. Therefore, Study 2 analyzes further their moderating effect on the influence of perceived similarity on the tendency for the three levels of risky self-disclosure.

Study 2

Introduction

Study 2 is on the impact of perceived similarity between users of online communication on risky self-disclosure: disclosure of personal information, visual self-disclosure and physical self-disclosure. Specifically, it examines whether a focus on similarities increases the tendency for risky self-disclosure. In order to test this, online communication is compared to offline communication, while perceived similarity is manipulated too. Moreover, this study tests for moderating effects of the dominant themes

identified in Study 1: computer and Internet use; digital skills; attitudes concerning use of the Internet for social contacts; sex; age.

In Study 2 three hypotheses are tested with respect to similarity and online communication. First, I expect a main effect of the communication medium on liking, trust, intimate self-disclosure and risky self-disclosure. A teenager who sees a profile on a social networking site is expected to show more liking and trust and a higher tendency for intimate self-disclosure and risky self-disclosure than a teenager who sees the same information in an offline medium (e.g. paper).

Second, I expect a main effect of perceived similarity between users on risky self-disclosure. A teenager who experiences feelings of similarity when seeing information about another user is expected to show more liking and trust and a higher tendency for intimate self-disclosure and risky self-disclosure than a teenager who experiences feelings of dissimilarity when seeing the same information.

Third, I expect an interaction effect between communication medium and perceived similarity on liking, trust, intimate self-disclosure and risky self-disclosure. The effect of similarity on these factors is expected to be stronger in online communication than in offline communication.

Furthermore, I expect that the influence of the communication medium and perceived similarity on risky self-disclosure is moderated by several factors. Participants with a higher frequency of computer and Internet use, more digital skills, a positive attitude concerning the Internet as a medium for social contacts with friends, male sex and older age are expected to show a greater tendency for risky self-disclosure compared to participant with a lower frequency of use, fewer digital skills, negative attitude concerning the Internet as a medium for social contacts with friends, female sex and younger age.

Method

Pilot study.   In order to be able to manipulate perceived similarity in Study 2, I conducted a pilot study in which 77 pupils of the Stanislascollege Delft participated. These were between 12 and 16 years old with a mean of 14.18 (SD = 0.81). Of these pupils, 35 were male and 42 female. The participants filled in a short paper and pencil questionnaire, in which they were asked to write down their favorite brands, TV programs, music, sports and their favorite places to travel (see Appendix 2). They were allowed to write down as much as they wished. The participants were also asked if they maintained a profile on a social networking site and, if so, on which website. Based on these results four different profiles and corresponding descriptions of fictional persons were created by selecting the most and less frequently mentioned interests: for a typical teenage boy, a typical teenage girl, an atypical teenage boy and an atypical teenage girl (see Appendix 3 and 4). The profiles were made in the format of Hyves, the most popular social networking site in The Netherlands (Antheunis, Valkenburg, & Peter, 2009), which also came out as the most popular site in the pilot study.

Participants and design.   In Study 2 the participants were 135 pupils of the Stanislascollege Delft, 74 female and 61 male, between 12 and 16 years old with a mean of 13.88 (SD = 0.90). Participants were recruited from the *havo/wvo* department of the school: 31 participants in *havo/wvo*, 20 in *havo*, 33 in *atheneum* (*vwo*), and 51 in *gymnasium* (*vwo*). The study had a 2 (medium: online, offline) x 2 (similarity: focus on similarity, focus on dissimilarity) between subjects design. Participants were randomly assigned to one of the resulting four conditions: online similarity; online dissimilarity; offline similarity; offline dissimilarity.

Procedure.   Study 2 was a computer experiment. First, participants read an introduction which explained the importance of scientific research and gave a short introduction of the subject. Participants were told that the goal of the experiment was to study

how people form an impression of others. Risky online behavior was purposely not mentioned.

After the introduction communication medium and perceived similarity were manipulated. As a manipulation of communication medium, participants in the online conditions were asked to look at a screenshot on a computer screen of a profile on a social networking site. Boys were shown a profile of a girl named Laura and girls were shown a profile of a boy named Tim. The names were selected from the top five most popular names of children born between 1992 and 1998. These names were chosen in order to keep as many aspects constant and neutral as possible, with the exception of the interests listed in the profile or person description (brands, TV programs, music, sports and places to travel). In all experimental conditions the fictional owners of the profile were 14 years old (the expected mean age of the participants) and lived in Delft (the city where the school of the participants is located). As a manipulation of perceived similarity, half of the boys and girls were shown a similarity profile and the other half a dissimilarity profile of the other sex (see Appendix 3).

The same procedure applied to the offline conditions, except that participants in the offline conditions were asked to look at a person's textual description on paper (see Appendix 4). Participants were asked to look at the profile or textual description and to try to form an impression of the person that was described.

After viewing the profile participants filled in a questionnaire (see Appendix 5). They rated on a scale from 1 (not at all) to 7 (completely) the extent to which they agreed with the statements about how much they liked the owner of the profile or description, about giving personal information and visual material to this person, about meeting this person, about how reliable they thought this person was and about how much similarity they experienced. They also answered questions about the frequency of their computer and Internet use, their digital skills and their attitude concerning use of the Internet for social contacts with friends. The

questionnaire was complemented by information on the participants' class number, age and sex, and comments or questions about the experiment. After the data were collected, every participant received a debriefing text that explained the true goal of the experiment.

Scales. The first scale participants filled in consisted of five statements on liking, for example 'I like this person' and 'This person seems nice'. This scale had an internal reliability of $\alpha = .89$. A second scale measured trust and consisted of three statements on trustworthiness: 'This person seems honest', 'This person seems reliable' and 'This person seems genuine', with an internal reliability of $\alpha = .85$. A third scale consisted of six statements on talking about intimate subjects, such as 'I would talk with this person about my feelings', 'I would talk with this person about being in love' and 'I would talk with this person about moments in my life I feel ashamed of' (Schouten, Valkenburg, & Peter, 2007), and showed an internal reliability of $\alpha = .91$.

The questions measuring risky online self-disclosure were combined into a scale of nine items with a high internal reliability of $\alpha = .94$. Based on the subject of the questions, this scale was divided into three subscales. The first subscale concerned the disclosure of personal information and consisted of four statements: 'I would give this person my e-mail', 'I would give this person my phone number' and 'I would give this person my address', I would add this person to my contact list on MSN Messenger' ($\alpha = .93$). The second subscale concerned visual self-disclosure and consisted of three statements: 'I would send this person photos of myself', 'I would send this person videos of myself', and 'I would give this person access to my webcam' ($\alpha = .90$). The third subscale concerned physical self-disclosure and consisted of two statements: 'I would like to meet this person in real life' and 'I would like this person to visit me at home' ($\alpha = .81$).

A fourth index measured computer and Internet use ('I frequently use the computer' and 'I frequently use the Internet', $\alpha = .76$) and a fifth measured digital skills ('I am skilled in

using the computer' and 'I am skilled in using the Internet', α = .93). As a manipulation check, perceived similarity was measured with four statements, for example 'This person is similar to me'. This scale had an internal reliability of α = .87.

Results

   Scales.   All subscales on risky self-disclosure (disclosure of personal information, visual disclosure, and physical disclosure) were found to be positively related, all significant at the 0.01 level, $p = .00$ (see Appendix 6, Table 1). Disclosure of personal information and visual information showed a correlation of $r = .72$, disclosure of personal information and physical disclosure showed a correlation of $r = .75$ and visual disclosure and physical disclosure showed a correlation of $r = .67$. This suggests that participants who displayed a tendency for one type of risky self-disclosure were also likely to display a tendency for other types of risky self-disclosure.

   Moreover, risky self-disclosure and the three subscales were positively related to perceived similarity, liking, trust and intimate self-disclosure. These correlations were all significant at the 0.01 level, $p = .00$ (see Appendix 6, Table 2). This means that participants who felt similar to the described person liked and trusted this person more, showed a higher tendency for disclosing intimate information to this person but also showed a higher tendency for risky self-disclosure.

   Furthermore, computer and Internet use were positively correlated with digital skills ($r = .68, p = .00$) and liking ($r = .18, p = .04$). This indicates that participants who used the computer and the Internet frequently also had more digital skills. In addition, they liked the other person more than participants who did not use the computer frequently. Digital skills showed a positive correlation with trust ($r = .18, p = .04$), which means that participants who scored higher on digital skills trusted the other person more.

Main effect of communication medium. Results of a regression analysis (General Linear Model) consistently showed a main effect of communication medium on the dependent variables. However, this effect is not in line with the hypothesis. Participants in the offline conditions scored significantly higher than participants in the online conditions on: liking, $F(1, 134) = 18.46$, $p = .00$; trust, $F(1, 134) = 4.25$, $p = .04$; risky self-disclosure $F(1, 134) = 15.59$, $p = .00$; disclosure of personal information $F(1, 134) = 20.83$, $p = .00$; physical disclosure $F(1, 134) = 13.48$, $p = .00$. The communication medium had a marginally significant effect on perceived similarity $F(1, 134) = 3.36$, $p = .07$ (see Appendix 6, Table 3). The effect of the medium was not significant for intimate and visual self-disclosure.

These results consistently indicate that when participants saw information about another person on paper, they liked and trusted the other person more compared to participants who saw the same information in a profile of a social networking site. Although only marginally significant, they also felt more similar to the other person, although not significantly more. Participants in the offline conditions also showed a higher tendency for risky self-disclosure (as well as on the subscales) than the participants in the online condition. This main effect of communication medium and the absence of a main effect of perceived similarity show that the manipulation of perceived similarity did not influence risky self-disclosure.

Manipulation check: perceived similarity. Results indicated that the manipulation of similarity did not cause a higher score on perceived similarity in the similarity conditions. The mean score on perceived similarity was higher in the similarity conditions (M = 2.82, SD = 1.43) than in the dissimilarity conditions (M = 2.69, SD = 1.37) but this effect was not significant. However, a higher score on perceived similarity –which is not manipulated similarity but the measured extent to which the participant feels similar to the other person– was indeed related to a higher score on: liking, $F(1, 134) = 68.84$, $p = .00$; trust,

$F(1, 134) = 40.63$, $p = .00$; intimate self-disclosure, $F(1, 134) = 51.69$, $p = .00$; risky self-disclosure, $F(1, 134) = 61.42$, $p = .00$; disclosure of personal information, $F(1, 134) = 43.93$, $p = .00$; visual self-disclosure, $F(1, 134) = 30.68$, $p = .00$; physical self-disclosure, $F(1, 134) = 90.05$, $p = .00$ (see Appendix 6, Table 4)

These results indicate that participants who felt more similar to the other person, liked and trusted this person more and showed a higher self-reported tendency for intimate self-disclosure compared to participants who felt less similar to this person. Moreover, participants who felt more similar to other person, showed a higher tendency for risky self-disclosure, including disclosure of personal information, visual disclosure and physical disclosure.

Maintaining a web photo album. Results of a regression analysis (General Linear Model) showed that besides perceived similarity, activity on photo sites was also significantly related to liking, $F(3, 134) = 5.73$, $p = .02$ (low score: M = 3.90, SD = 0.11; high score: M = 5.17, SD = 0.11). Of all types of risky self-disclosure, maintaining a web photo album only had a marginal significant effect on visual self-disclosure, $F(3, 134) = 3.11$, $p = .08$ (low score: M = 1.48, SD = 0.14; high score: M = 2.51, SD = 0.14). It seems that participants who maintained a web photo album were more likely to give visual material of themselves to others than participants who did not maintain a web photo album. Results showed a main effect of maintaining a profile on intimate self-disclosure, which would mean that maintaining a profile reinforces the effect of perceived similarity on intimate self-disclosure. However, this effect was not significant.

Moderators of the effect of communication medium on risky self-disclosure. A next step in the analysis was exploring the moderating effects of perceived similarity, maintaining a profile on social networking sites and maintaining an online photo album, attitudes concerning the Internet, sex and age on the influence of medium on risky online self-disclosure. These factors (excluding sex) were transformed to standardized scores and

regression analyses (General Linear Model) were conducted with communication medium as an independent variable, risky self-disclosure as a dependent variable and the standardized factors as a covariate. In most cases the effect was found to be significant for all three subscales of risky self-disclosure. However, the effect of medium on visual self-disclosure disappeared when controlling for perceived similarity, maintaining a web photo album, attitudes concerning the Internet and sex.

Perceived similarity. Perceived similarity was found to reinforce the tendency for risky self-disclosure, $F(3, 134) = 55.61$, $p = .00$. Participants who scored high on perceived similarity showed a higher tendency for risky self-disclosure (online: M = 3.13, SD = 0.21; offline: M = 3.80, SD = 0.19) compared to participants with a low score on perceived similarity (online: M = 1.63, SD = 0.18; offline: M = 2.33, SD = 0.22). This means that feelings of similarity were associated with more risky self-disclosure in both communication media.

Maintaining a web photo album. Maintaining a web photo album reinforced the tendency for risky self-disclosure, $F(3, 134) = 4.84$, $p = .03$. Participants who scored high on maintaining a web photo album showed a higher tendency for risky self-disclosure (online: M = 2.26, SD = 0.23; offline: M = 3.39, SD = 0.23) compared to participants with a low score on maintaining a web photo album (online: M = 1.96, SD = 0.23; offline: M = 2.97, SD = 0.23). This means that maintaining a web photo album was associated with more risky self-disclosure in both communication media. Maintaining a profile on a social networking site did not influence risky self-disclosure. It showed an effect on visual self-disclosure; however, this was not significant.

Attitude concerning the Internet as a social medium. Agreement with the statement 'Young people who use the Internet for contact with their friends have a better social life than those who do not' reinforced the effect on the influence of medium on risky

self-disclosure, $F(3, 134) = 5.77$, $p = .02$. Participants who scored high on agreement with this statement showed a higher tendency for risky self-disclosure (online: M = 2.56, SD = 0.22; offline: M = 3.43, SD = 0.24) compared to participants with a low score on agreement with this statement (online: M = 1.94, SD = 0.22; offline: M = 2.94, SD = 0.24). This indicates that a positive attitude on Internet use for contact with friends was related to more risky self-disclosure.

   Sex. Sex had a marginal significant effect on the influence of medium on risky self-disclosure, $F(1, 134) = 3.00$, $p = .09$. Boys showed a higher tendency for risky self-disclosure (M = 2.94, SD = 1.44) compared to girls (M = 2.53, SD = 1.38). Closer inspection of the data revealed that this effect was due to the reinforcing influence of sex on physical self-disclosure, $F(1, 134) = 5.50$, $p = .02$. Boys showed a higher tendency for physical self-disclosure (M = 3.10, SD = 1.64) compared to girls (M = 2.49, SD = 1.43). Age did not moderate the influence of medium on risky self-disclosure.

   Interaction effect of medium and similarity on computer and Internet use.

   Although I had the intention to add computer and Internet use and digital skills as a covariate in the regression analysis, closer inspection showed an unexpected pattern in the data. The indexes that measure computer and Internet use and skills were not independent of the communication medium and manipulated similarity but were systematically influenced by the manipulation, which made it impossible to use them as a covariate. Results of a regression analysis showed an interaction effect of medium and manipulated similarity on computer and Internet use, $F(3, 134) = 3.94$, $p = .05$. Participants scored higher on use in the online similarity condition (M = 5.90, SD = 0.20) than in the online dissimilarity condition (M = 5.47, SD = 0.20) but lower in the offline similarity condition (M = 5.60, SD = 0.20) than in the offline dissimilarity condition (M = 5.97, SD = 0.20). Results also suggested a

comparable interaction effect of medium and manipulated similarity on digital skills. However, this effect was not significant.

This interaction effect of communication medium and similarity on computer and Internet use means that when participants saw a profile (online conditions) of someone who was similar to them, they rated their own computer and Internet use as higher than when they saw a profile of someone who was dissimilar to them. When participants saw a description (offline conditions) of someone similar, they rated their own computer and Internet use as lower than when they saw a description of someone dissimilar. It seems that participants in the online similarity conditions *assimilated* to the other person by seeing themselves also as digital users and so exaggerating their own computer and Internet use, while in the online dissimilarity conditions they *contrasted away* from the other person by not seeing themselves that much as digital users and under-value their own computer and Internet use. In the offline conditions the opposite occurred. Participants in the offline similarity conditions assimilated and saw themselves not that much as digital users, while in the online dissimilarity conditions they contrasted away from the other person by seeing themselves more as digital users.

Discussion

The results of Study 2 showed two important main effects. The consistent main effect of medium on different types of risky self-disclosure suggests that teenagers pay more attention when they receive information online. In online communication there seems to be an exclamation mark signaling: "Watch out! Do not show too much of yourself to online contacts!" It could also mean that teenagers trust paper more than digital information. Teenagers also seem to feel more similar to other people and like and trust them more in offline than in online communication. Although results showed an effect of the medium and similarity on perceived similarity, this was not significant. This suggests the manipulation of similarity seemed to work but was overshadowed by the main effect of the medium.

A second main effect was found for maintaining a web photo album. Teenagers with a web photo album perceived more similarity, independently of the communication medium, and showed a higher tendency for risky self-disclosure. In line with findings of Study 1 (maintaining a profile and a photo album are related to meetings strangers), maintaining a web photo album moderated the influence of medium on risky self-disclosure. These results suggest that teenagers who are active on online photo sites face the greatest risk. They have more possibilities for contact with strangers on the Internet and especially seem to have a higher tendency to disclose information about themselves, probably because they experience a higher perceived similarity.

General Discussion

There are several prejudices concerning the Internet. First, although it is not proved, many people believe that the Internet is more dangerous than real life. Second, social networking sites are regarded as dangerous places where teenagers come easily into contact with malevolent strangers. Third, teenagers are seen as naïve users of such online environments; they are considered to be especially easy in giving out personal and intimate information on these sites. Research supports this last prejudice: more than half of the teenagers have been found to give out personal information on the Internet (Livingstone & Haddon, 2009a).

In this research I expected that teenagers who maintain a profile on a social networking site are more likely to meet online contacts in real life and have negative experiences resulting from these meetings. I expected that on social networking sites teenagers feel more similar to other users compared to real-life communication and that this perceived similarity induces liking, trust, intimate and risky self-disclosure. Furthermore, I expected several factors to act as moderators of this process. A higher frequency of computer and Internet use and a positive attitude concerning the Internet for social contacts with friends

were expected to reinforce the tendency for risky self-disclosure. Girls and older teenagers were expected to show a higher tendency for risky self-disclosure on the Internet. Furthermore, digital skills and parental mediation were expected to protect teenagers from disclosing personal and intimate information about themselves.

My findings partly supported these expectations with some interesting associations and effects. In Study 1 I found that teenagers who maintained a profile on a social networking site as well as teenagers who maintained a web photo album reported more often than teenagers without a profile or a web photo album to have met online friends in real life (physical self-disclosure). Study 2 showed that teenagers who maintained an online photo album had a higher tendency for risky self-disclosure in an experimental design. Furthermore, although these relationships were not causal, I found that perceived similarity was related to more liking, trust, intimate and risky self-disclosure in teenagers. Previous research was not able to indicate that feelings of similarity in computer-mediated communication increase intimate self-disclosure (Schouten, et al., 2009). It concluded that increased feelings of similarity can therefore not account for the increased self-disclosure in computer-mediated communication. However, I have found that perceived similarity is related to a higher tendency for risky self-disclosure, including intimate self-disclosure, in offline as well as online communication. In both studies, frequency of use and a positive attitude concerning the Internet were associated with a higher tendency for risky self-disclosure. Finally, older teenagers showed a higher tendency, although only in Study 1.

However, some unexpected results also came out. Study 1 showed that teenagers who maintain a profile on a social networking site or a web photo album do not have more undesirable experiences following an offline meeting with an online acquaintance compared to teenagers who do not have a profile. Another consistent result I found in Study 2 was that teenagers perceived more similarity, liked and trusted the other person more and showed a

higher tendency for intimate and risky self-disclosure in offline communication – and not, as expected, in online communication. This contradicts findings of previous research, namely that people disclose more intimate information about themselves in online than in offline communication (Antheunis, et al., 2007; Joinson, 2001; Schouten, et al., 2009; Tidwell & Walther, 2002). Boys were also found to have a higher tendency for risky self-disclosure than girls and digital skills were associated with a higher tendency for risky self-disclosure. Furthermore, age, parental mediation, educational level of teenagers and their parents, and the occupational level of their parents showed no effect on the tendency for risky self-disclosure.

A possible explanation of the absence of a relation between maintaining a profile or online photo album and having undesirable experiences with meeting strangers in Study 1 is that these strangers are mainly also teenagers, probably with the same intentions. People may overrate the dangers of the Internet: we are careful in giving our PIN code on the Internet but we may have it written on a piece of paper in our wallets. Teenagers seem especially careful with disclosing personal and intimate information on the Internet and with meeting strangers: just seeing a profile of another person on a social networking site was enough to induce a 'watch out' effect, making teenagers significantly less prone to disclose personal or intimate information. Furthermore, the absent effect of maintaining a profile on risky self-disclosure in Study 2 is in line with the current trend to protect the profile from people outside the personal social network. The effect of maintaining a photo album on risky self-disclosure corresponds with the absence of this trend in online photo sites (such as Flickr). This may reflect a higher tendency of teenagers with a web photo album to show or disclose visual material, which also seems to extend to risky self-disclosure.

That girls do not show a higher tendency for risky self-disclosure may be explained by a higher tendency for sensation-seeking in boys, which causes more risky self-disclosure. Furthermore, a higher score on digital skills may reflect a lifestyle rather than a way of coping

with information on the Internet. An effect of parental mediation was not found. This suggests that risky self-disclosure is a personal process in which a teenager directly reacts on information received. It may indicate that we have moved ahead in terms of Internet literacy and awareness: as the Internet plays such a great role in the daily life of teenagers and since they often have their own computer and unsupervisable Internet access (including on their mobile phone), parental mediation techniques may not be effective in reducing risky self-disclosure in teenagers. The absent effect of educational level was unexpected; however, it was in line with findings of Study 1. It could have been caused by the generally highly educational level of teenagers who participated in the experiment of Study 2. Further research could investigate this in teenagers with a lower educational level. Teenagers with a lower educational level may react differently to information they receive on social networking sites.

Another unexpected effect was the interaction effect between medium and perceived similarity on self-reported frequency of computer and Internet use. This indicates that social comparison processes and the resulting assimilation and contrast effects also exist in online environments and influence self-evaluation concerning computer and Internet use.

Although the manipulation of communication medium on similarity did show a small effect on perceived similarity, no significant effect of the manipulation of similarity on perceived similarity, liking, trust, intimate and risky self-disclosure was found. It is possible that the manipulation of similarity was not strong enough; the similarity and dissimilarity conditions both contained hobbies and interests of teenagers, which made all participants feel similar to the person described. A suggestion for further research would be to investigate this process with a stronger manipulation of similarity and a better comparison of online communication (a real profile with more information instead of a screenshot) and face-to-face communication instead of on paper.

I would like to conclude with some tips for Internet users (teenagers and their parents) on how to protect themselves from Breezer chick lurers and reduce risks associated with self-disclosure. First of all, it seems that teenagers are not as naïve as some people (including lurers) think. However, teenagers have to be alert to apparent similarities between them and the other Internet users because they may be simulated purposely, be incidental to the organization of social networking sites and may not reflect real similarities. Furthermore, parents have to be alert if their children are very active on social networking sites and online photo albums, as these teenagers seem to display a higher tendency for risky self-disclosure. But above all, real life may be more dangerous than the Internet. We are warned about giving e.g. our phone number to a stranger on the Internet but I doubt that teenagers think twice about giving their phone number to a stranger in a bar.

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Appendix 1: Breezer chick luring

Breezerchick versieren? How To:-Breezer Lokken-

Op veler verzoek in het Mooie Meisjes Topic [forum] heb ik besloten mijn Breezer-Lok talent te delen met anderen. Het zal niet makkelijk zijn, maar ik zal mijn best doen. We gaan te werk door middel van een stappenplan. Sommige gevorderde Lokkers zullen stap 1 en 2 kunnen overslaan. Alsnog gelden er een paar algemene voorwaarden waar je aan zal moeten voldoen zodat Breezer Sletjes je interessant vinden. Ook al ligt het tegen je principes, doe alsof.

Als Lokker moet je:

- Mental Theo de bom vinden.

- 'Heb je even voor mij' van Frans Bauer de bom vinden.

- Van Breezer houden.

- Goud dragen.

- School stom vinden.

- Slimme mensen haten.

Stap 1: Hoe ga je te werk?

Maak foto's van jezelf. Ook al ben je in het echt foeilelijk, je kan een webcam ALTIJD zo draaien dat je er mooi op staat. Heb je een leuke foto, laat iemand hem dan voor je Photoshoppen, tenzij je het zelf kan. Zet bijvoorbeeld rond je hoofd zeepbubbels, en gebruik leuke kleurtjes. Dit noemen we de Lok-Foto's. Zet je internet aan. Ga naar tmf.nl. Maak een ID aan. Dit kost 1,50 euro ofzo, denk wat je ervoor terug krijgt. Neem niet een naam als Jochem ofzo, doe een naam die de simpele sletjes zal aanspreken. Mijn favoriet is C@mHunk. Zet de Lok-Foto's op je ID. Zet als leeftijd 18, ongeacht hoe oud je echt bent. Breezer sletjes houden van oudere jongens. Ga naar de chatbox. Stap 1 is voltooid.

Stap 2: Hoe lok ik?

Kies rechtsboven bij 'Opties' --> Kleur veranderen. Kies een kleur. Baby blauw is mijn all-time favorite. Klik op 'Kanalen' en kies er 1 die je aanspreekt. MSN kanaal is wel zo makkelijk, weet je in ieder geval zeker dat ze MSN heeft. Zeg iets van 'Zijn er hier nog MOOIE meisjes?' of iets wat er op lijkt. Nu kan de pret beginnen. Hier komt mijn grote geheim: Als een chick zegt 'Ja hoor, ik wil wel' of iets in die richting klik je 1 keer op haar naam, dat markeert de naam wat lichter dan de rest, en verschijnt er wat bullshit info in de chatbox zelf. Ga dan onder alle chatter-namen kijken. Daaronder staan nog een paar knoppen waaronder een grote rode waar 'ID' opstaat. Klik hierop. De chick haar ID verschijnt. Onder woonplaats en naam enz staat 'Website:' Kijk of de chick haar CU2 heeft neergezet als website. Staat er geen CU2, laat haar gaan, en ga net zo lang tot je er 1 heb die daar wel een CU2 heeft staan. De grap is, dat je later, op MSN, alles uit haar vragenlijst kan gebruiken, en zij zal denken dat het super klikt tussen jullie, omdat jullie ook dezelfde lievelingskleur hebben, dezelfde dromen, dezelfde favoriete films, enz. Dit is uiteraard bullshit, maar als zo'n meisje eenmaal denkt dat het klikt gaat de rest vanzelf. Hierover later meer. Zeg nadat je er 1 hebt gevonden met website, na de 2 minuten bullshit praatjes, iets in de richting van: 'Ey chica..Sorry..Maar ik moet alweer gaan..Kan je niet je MSN adres geven? Of denk je ik dis die jongen liever, ook al weet ik dat hij misschien wel de ware is..?'
Let the fun begin!

Stap 3: MSN Playen

Hier valt weinig aan te leren. Je hebt het of je hebt het niet. Praatjes kan niemand je aanleren, maar doormiddel van een hoop grapjes en haar CU2 vragenlijst, zal je, kneus of Player, snel resultaat boeken. DOE LIEF! Vraag niet meteen of ze geil is en dat soort BULLSHIT, dat werkt precies omgekeerd zoals jij het wil. Maak simpele grapjes. Voorbeelden zijn: SLET:

'Wie b3n JoE?' PLAYER: 'Oke oke, ik zal je hint geven. Ik heb een wit paard..Een kroon..;)'
Ga net zolang door met het grapje tot ze het wel snapt. Ze zal het alsnog leuk vinden. Je kan
ervan uitgaan dat ze niet bijster slim is. Tevens zijn het allemaal net eksters. Alles wat glimt
spreekt ze aan. Rijk zijn ook. Ook al ben je het niet, doe alsof. Dat is erg belangrijk! Vraag
haar gelijk haar Cam aan te doen. Vraag haar niks uit te trekken. Doe rustig, neem je tijd.
Praat, lach, doe alles precies zoals zij wil. Zeg dingen als 'Damn..Je bent echt mooi..Ik wil
daar met je zijn..' Ze zegt gegarandeerd iets in de richting van 'Wat zou je dan doen..?' en het
spel kan beginnen. Ik kan niet precies vertellen hoe of wanneer, dat is bij iedere slet anders. Je
voelt het vanzelf. Misschien ga je een of twee keer op je bek, maar blijf bezig, en je zal
genieten.

Stap 4: Drop that shit, bitch!

Lief doen alleen is niet genoeg. Doe soms cold as ice. Als jij 40 zinnen typt, en zij 2 woorden
terug, zeg je iets van 'Ik weet niet hoor, maar op deze manier ben je zo mijn lijst uit. Je kent
me niet, ik heb weinig tijd, en in die weinig tijd maak ik nog is tijd vrij voor jou, en jij kiest
ervoor om met andere bullshit praatjes te houden, terwijl hetgeen waar je naar opzoek bent
gewoon hier is.' Alles zal weer goed komen. Vraag of ze vriendje heeft, ga zo door op
onderwerp. Vraag of ze een lekker kontje heeft. Ook al zegt ze Ja of Nee, zeg 'ik geloof het
niet..;)' op webcam zal de rest volgen. Als het om pic's gaat kan je zeggen 'Komop chica..Je
vertrouwt me toch wel..? Ik beloof je dat ik de foto meteen weer verwijder' en dergelijke.
Begin rustig. Een string na een avond playen is een hele prestatie en daar mag je trots op zijn.
Doe dit steeds een tikkeltje verder, en neem je tijd. Dring haar nooit aan. En binnen de kortste
keren zal ze naakt gaan.

Have fun!:-)

Appendix 2: Questions concerning interests and hobbies of teenagers

Klas:

 Leeftijd:

 Jongen / meisje

1. Stel, je zou een Hyves-profiel opzetten (of je er nu al één hebt of niet), wat zou je dan

    invullen bij de volgende onderdelen? Je mag zo veel opschrijven als je wilt.

    a) Favoriete merken:

    b) Favoriete tv-programma's:

    c) Favoriete muziek:

    d) Favoriete sporten:

    e) Favoriete reisbestemmingen:

2. Heb je een profiel op internet? Zo ja, waar? Je mag meerdere websites opschrijven.
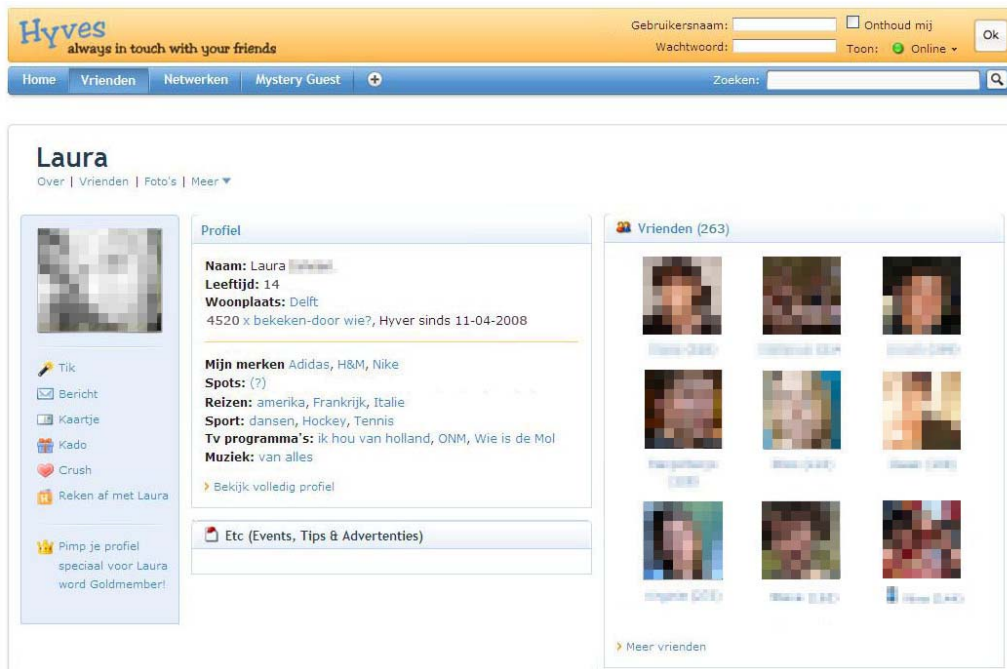
Appendix 3: Fictive profiles

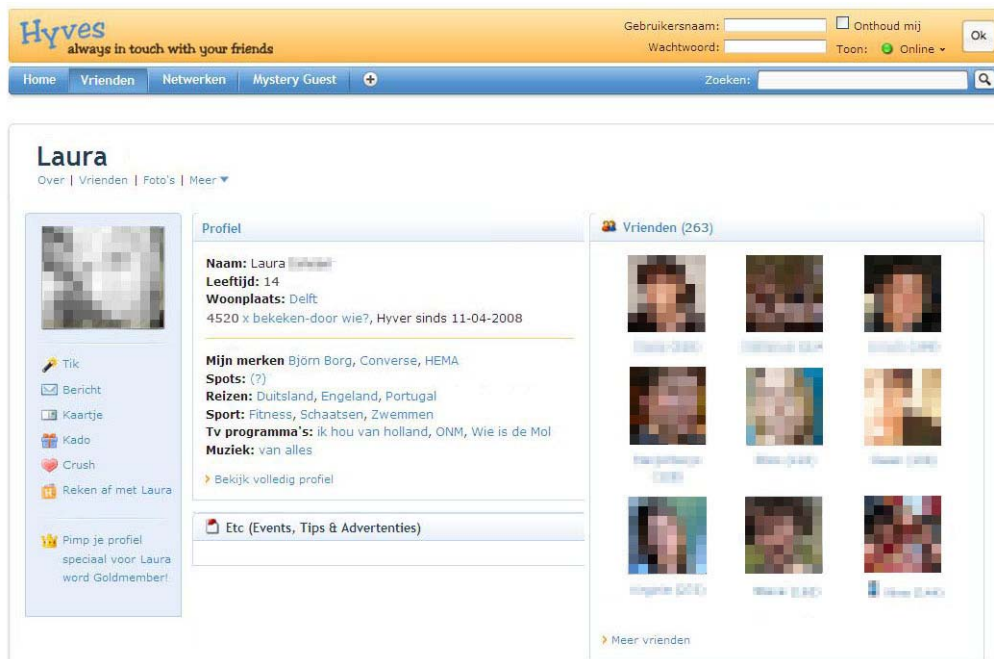*Figure 1.* Online similarity condition (male participant).

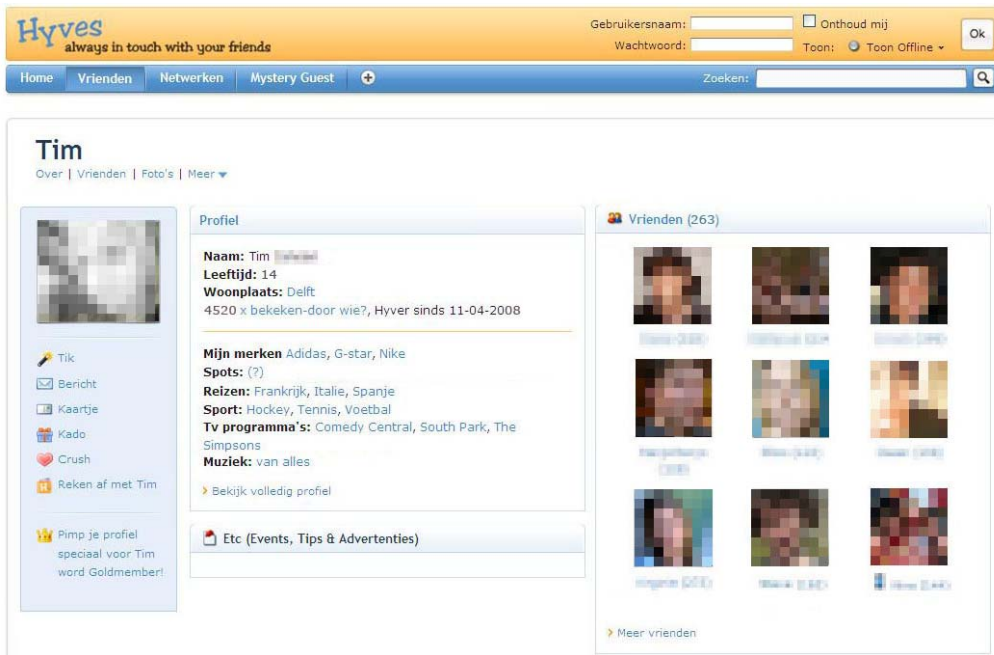*Figure 2.* Online dissimilarity condition (male participant).

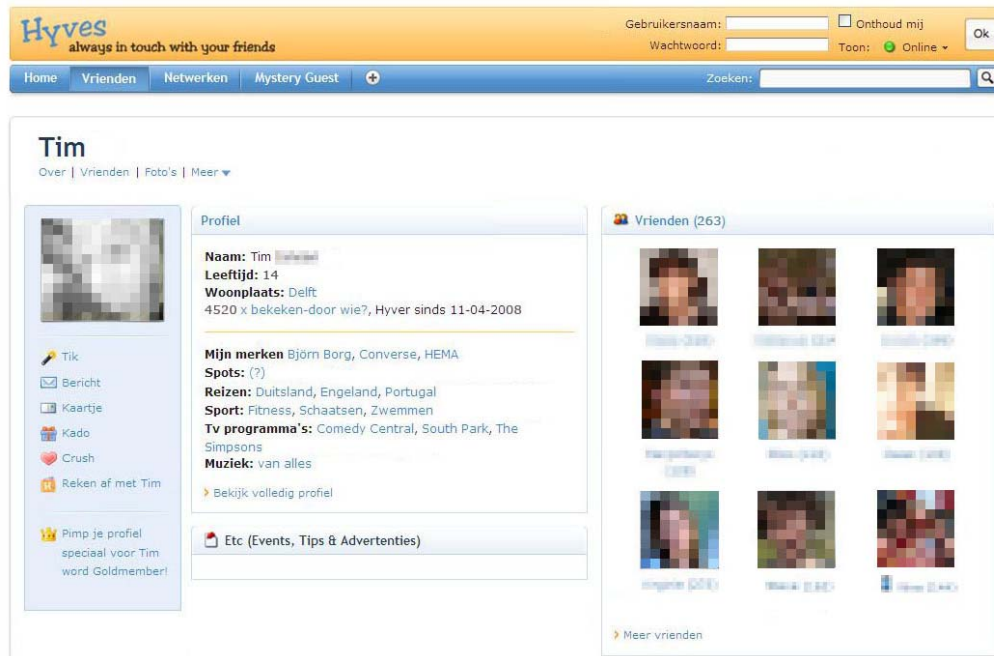*Figure 3.* Online similarity condition (female participant).

Figure 4. Online dissimilarity condition (female participant).

Appendix 4: Textual descriptions

Offline similarity condition (male participant):

Naam: Laura

Leeftijd: 14

Woonplaats: Delft

Haar favoriete merken zijn H&M, Adidas en Nike.

Tv-programma's waar ze graag naar kijkt, zijn: Ik Hou Van Holland, Onderweg Naar Morgen (ONM) en Wie is de Mol?.

Ze heeft geen favoriete muziek; ze vindt van alles leuk.

Als sport houdt ze het meeste van dansen, hockey en tennis.

Haar favoriete reisbestemmingen zijn Frankrijk, Italië en Amerika.

Offline dissimilarity condition (male participant):

Naam: Laura

Leeftijd: 14

Woonplaats: Delft

Haar favoriete merken zijn HEMA, Converse en Björn Borg

Tv-programma's waar ze graag naar kijkt, zijn: Ik Hou Van Holland, Onderweg Naar Morgen (ONM) en Wie is de Mol?.

Ze heeft geen favoriete muziek; ze vindt van alles leuk.

Als sport houdt ze het meeste van fitness, zwemmen en schaatsen.

Haar favoriete reisbestemmingen zijn Duitsland, Portugal en Engeland.

Offline similarity condition (female participant):

Naam: Tim

Leeftijd: 14

Woonplaats: Delft

Zijn favoriete merken zijn Nike, Adidas en G-Star.

Tv-programma's waar hij graag naar kijkt, zijn: South Park, Comedy Central en The Simpsons.

Hij heeft geen favoriete muziek; hij vindt van alles leuk.

Als sport houdt hij het meeste van voetbal, tennis en hockey.

Zijn favoriete reisbestemmingen zijn Frankrijk, Italië en Spanje.

Offline dissimilarity condition (female participant):

Naam: Tim

Leeftijd: 14

Woonplaats: Delft

Zijn favoriete merken zijn HEMA, Converse en Björn Borg

Tv-programma's waar hij graag naar kijkt, zijn: South Park, Comedy Central en The Simpsons.

Hij heeft geen favoriete muziek; hij vindt van alles leuk.

Als sport houdt hij het meeste van fitness, zwemmen en schaatsen.

Zijn favoriete reisbestemmingen zijn Duitsland, Portugal en Engeland.

Appendix 5: Questions used in Study 2

1. Deze persoon lijkt mij aardig.

2. Deze persoon lijkt mij leuk.

3. Deze persoon lijkt mij vriendelijk.

4. Deze persoon lijkt mij sympathiek.

5. Ik zou met deze persoon om willen gaan.

6. Deze persoon lijkt mij eerlijk.

7. Deze persoon lijkt mij betrouwbaar.

8. Deze persoon lijkt mij oprecht.

9. Ik zou met deze persoon praten over mijn gevoelens.

10. Ik zou met deze persoon praten over mijn zorgen.

11. Ik zou met deze persoon praten over mijn geheimen.

12. Ik zou met deze persoon praten over verliefd zijn.

13. Ik zou met deze persoon praten over momenten in mijn leven waar ik me voor schaam.

14. Ik zou met deze persoon praten over momenten in mijn leven waar ik me schuldig voor voel.

15. Ik zou deze persoon mijn e-mailadres geven.

16. Ik zou deze persoon mijn telefoonnummer geven.

17. Ik zou deze persoon mijn huisadres geven.

18. Ik zou deze persoon toevoegen op MSN.

19. Ik zou deze persoon foto's van mezelf sturen.

20. Ik zou deze persoon filmpjes van mezelf sturen.

21. Ik zou deze persoon toegang geven tot mijn webcam.

22. Ik zou deze persoon in het echt willen ontmoeten.

23. Ik zou willen dat deze persoon bij mij thuis langskomt.

24. Deze persoon en ik lijken op elkaar.

25. Deze persoon en ik lijken op elkaar qua persoonlijkheid.

26. Deze persoon en ik lijken een vergelijkbaar leven te hebben.

27. Deze persoon en ik hebben dezelfde interesses.

28. Ik maak veel gebruik van de computer.

29. Ik zit veel op internet.

30. Ik kan goed overweg met de computer.

31. Ik kan goed overweg met internet.

32. Ik vind dat jongeren die internet gebruiken voor hun contact met vrienden een beter sociaal leven hebben dan jongeren die dat niet doen.

33. Ik houd een eigen profiel bij op een profielsite (bijvoorbeeld Hyves, Facebook, CU2, Sugababes.nl, Superdudes.nl, TMF ID).

34. Ik houd een online fotoalbum bij (zoals bij MSN Space, Flickr.com).

Appendix 6: Results of Study 2

Table 1

Correlations between subscales of risky self-disclosure

	Disclosure of personal information	Visual self-disclosure	Physical self-disclosure
Disclosure of personal information		.72*	.75*
Visual self-disclosure	.72*		.67*
Physical self-disclosure	.75*	.67*	

*p < .001

Table 2

Correlations between risky self-disclosure and perceived similarity, liking, trust and intimate

self-disclosure

	Perceived similarity	Liking	Trust	Intimate self-disclosure
Risky self-disclosure	.56*	.55*	.40*	.61*
Disclosure of personal information	.50*	.53*	.34*	.55*
Visual self-disclosure	.43*	.40*	.32*	.60*
Physical self-disclosure	.64*	.56*	.46*	.51*

*p < .001

Table 3

Main effect of communication medium

| | Communication medium | | | |
| | Offline | | Online | |
Scale	Mean	SD	Mean	SD
Liking	4.95	0.13	4.15	0.13
Trust	4.38	0.14	3.97	0.14
Risky self-disclosure	3.18	0.17	2.26	0.17
Disclosure of personal information	3.88	0.20	2.53	0.20
Physical self-disclosure	3.24	0.18	2.29	0.18
Perceived similarity	2.97	0.17	2.53	0.17

Table 4

Main effect of perceived similarity

| | Perceived similarity | | | |
| | Low | | High | |
Scale	Mean	SD	Mean	SD
Liking	3.87	0.11	5.22	0.11
Trust	3.61	0.13	4.74	0.13
Intimate self-disclosure	1.69	0.12	2.90	0.12
Risky self-disclosure	1.92	0.14	3.52	0.14
Disclosure of personal information	2.33	0.19	4.08	0.19
Visual self-disclosure	1.47	0.15	2.61	0.15
Physical self-disclosure	1.77	0.15	3.75	0.15