Relationships in the Digital Age: Self-disclosure and Communication in Social Networking Sites

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Abstract

With the development of new technologies and rise of social media, the desire to communicate and share information is seen as a primary driver of social networking sites, where the aspect of self-disclosure becomes one of the key characteristics for interpersonal attraction. The aim of the research is to examine how people communicate, self-disclose and maintain relationships on social networking sites and to find out how the use of computer-mediated communication relates to relational development and maintenance. MTurk tool and social media posts were utilized to gather information. Statistical data analysis program SPSS was employed: confirmatory factor analysis (CFA) and scale analysis and construction were performed. The investigation revealed significant differences between males and females self-disclosure practices on social networking site Facebook with outstanding differences depending upon the country of living, relationship status, perceived positive and negative rewards, benefits and satisfaction. The results of the study open path for future research within the framework of communication privacy management theory in line with the social penetration theory with an aim to analyse how self-disclosure inter-correlates with privacy concerns.

KEYWORDS: relationship; computer-mediated communication; social network sites; penetration; self-disclosure.

Introduction

With the development of new technologies and rise of social media, the desire to communicate and share information is seen as a primary driver of social networking sites, where the aspect of self-disclosure, that is related to the implications of openness in interpersonal relationships, becomes one of the key characteristics for interpersonal attraction. Thus, it is important to analyse and evaluate how the use of computer-mediated communication relates to relational development and maintenance, especially as users of social networking sites more frequently find themselves engaging in various forms of self-disclosure online.

Self-disclosure is considered to be a key aspect in developing intimacy and closeness with others as well as maintaining relationships on social networking sites, including romantic partners, friends or family members. It is closely related to social penetration theory, as it states that this process depends on the disclosure both in terms of depth, stages of penetration and breadth as well as rewards and costs rationale. Users of social networking sites share intimate information next to peripheral to gain trust in their partner. They disclose themselves gradually, which is the main principle of social penetration theory. As these sites are becoming more favoured, it is important to investigate how people self-disclose to others on social networking sites, how this process affects communication, and maintenance of relationships.

The decision whether to self-disclose online is rather complex and multidimensional, individuals have the urge to self-disclose, but at the same time they carefully weigh possible harmful or beneficial consequences (Krämer & Schäwel, 2020). Luo and Hancock (2020) found that self-disclosure captures both positive and negative indicators of psychological well-being, positive being self-esteem and satisfaction, while negative indicators being depression, loneliness, and anxiety. Research by Pew Research Center found that social networking sites can be a source of conflict and annoyance, as people reported that they felt jealous or unsure about their own relationship, because of their partners interacting with others (Vogels & Anderson, 2020). Fortunately, people are usually good at leveraging self-disclosure in a way that gratifications are increased and disadvantages are minimised (Krämer & Schäwel, 2020). Additionally, the results of the study by Cheung et al., (2015) showed that the perceived benefits and social influence are significant factors that determine self-disclosure and relational maintenance on social networking sites.

On the other hand, a study by Błachnio, Przepiorka and Pantic (2016) examined the relationship between Facebook use, self-esteem, and life satisfaction and it was found out that Facebook intensity is negatively related to satisfaction with life. Therefore, excessive use of social networking sites affects users' quality of life.

Since few research studies aim to understand how social networking sites are affecting self-disclosure in a context of relational development have been carried out, the authors of the study make an attempt to answer the following question that is the scientific problem of the research: – how self-disclosure on social networking sites affects communication and the development of interpersonal relationships.

The aim of the research – to examine how people communicate, self-disclose and maintain relationships on social networking sites.

Tasks of the research:

1 To discuss aspects of communication relationships in the digital age with the focus on self-disclosure in a context of social networking sites;

2 To evaluate self-disclosure in a context of social penetration theory;

3 To analyse if self-disclosure practices on social networking sites influence communication, relational building, and maintenance.

Research Methods: analysis of scientific literature, quantitative research method, confirmatory factor analysis.

The following hypotheses were raised:

» H1. self-disclosure on social networking sites differs depending on demographic indicators such as gender, country of living and age;

» H2. self-disclosure on social networking sites differs depending on relationship status;

» H3. self-disclosure practices on social networking sites correlates with perceived negative and positive rewards;

» H4. self-disclosure practices on social networking sites correlates with gained benefits and overall satisfaction.

The results obtained in this research prove that people are able to connect through social networking sites as the activity is enhanced by building and maintaining relationships online. The findings suggest that the desire to communicate and share information is seen as a primary driver to use social networking sites. Analysis of self-disclosure in the context of social penetration theory reveals that every individual has a certain personality structure with layers that are becoming more visible when self-disclosing, this process is dependent on depth and breadth of

penetration, different stages of penetration, rewards and costs rationale and reciprocity.

Ultimately, the results have shown that self-disclosure practices differ depending on the demographic factors, such as gender, age, and a country of living, additionally, self-disclosure differs depending on relationship status in both male and female groups. The correlations show that there are strong links between self-disclosure and gained positive and negative rewards as well as between self-disclosure, benefits, and satisfaction.

Building and maintaining relationships in the digital age

Technology has remarkably changed the way people communicate and build relationships in the digital age. Different surveys show that instead of talking to each other people text messages, prefer SKYPE calls in lieu of face-to-face meetings or use symbols such as smiling faces instead of clearly articulating their feelings.

Consequently, with the prevalence of social networking sites, a growing number of studies can be seen in attempts to explain the self-disclosure phenomenon of social networking sites (Cheung, Lee, & Chan, 2015). Cheung et al. define social networking sites as "online platforms that facilitate the construction of social networks or social relations among people who share similar interests, backgrounds, and/or real-life connections" (2015, p. 3). In a context of social penetration theory, it is important to consider how these social networking sites affect interpersonal communication. When speaking about today's profiles on social networking sites, people have the urge to self-disclose on social media platforms which is affordanced by various social media applications as well as challenges that come together (Krämer & Schäwel, 2020). Ellison and Boyd observe that there were three distinguishing characteristics in the early days of their establishment, namely profile, lists of contacts and the ability to navigate such contacts. However, as social networking sites have evolved, their main characteristics and importance have shifted from self-presentational message to an individual portrait as an expression of an action (Ellison & Boyd, 2013).

By joining social networking sites, people create a public profile and connect with their friends. Individuals often reveal much of their true identities in the process of making a profile by publishing personal information, photographs, and personal preferences (Cheung et al., 2015). The interactions between people and thus the profiles serve several roles on a social network platform as they are used to identify and display relationships, delineate who can access what content and serve as a filter through which viewers can browse profiles and discover friends in common (Ellison & Boyd, 2013). Huang, Ma, Chung and Jian (2019) described social networking as the creation of social communication technologies and noted that social networking online has become ubiquitous in recent years, with the two most popular sites being Facebook and Twitter. In addition, social media usage has become increasingly mobile, in large part thanks to social apps. As of October 2019, WhatsApp was one of the most popular mobile messenger app worldwide with over 1.6 billion monthly active users. As of January 2020, the mobile social media penetration in Asian countries was high due to mobile-first connectivity in these markets.

Data provided by business data platform Statista (2020) imply that based on a comparison of the number of active accounts on the top social network in each country to the population, South Korea ranked third with a social media usage penetration of 87 percent, Sweden ranked tenth with 73 percent, Denmark – fourteenth, with 71 percent, Israel and USA – fifteenth, with 70 percent. The most used social network worldwide was YouTube with a 90 percent penetration rate followed by Instagram with 83 percent. "Since its inception in 1996, social media has managed to infiltrate half of the 7.7 billion people in the world. Social network platforms almost tripled their total user base in the last decade, from 970 million in 2010 to the number passing 3.81 billion

users in 2020" (Dean 2020). "Despite various challenges over the past few years, Facebook is still top of the pops when it comes to social networking. Trends in user numbers reported in the company's earnings announcements suggest that the platform should have already passed the historic 2.5 billion monthly active users (MAU) mark, and user numbers continued to grow steadily across most countries during 2019" (Kemp 2020).

A B2B writer Sarah Aboulhosn (2020) reports 4. 74% of high-income earners are Facebook users. In addition, Facebook use is prominent among high-earners, and even surpasses LinkedIn, which reaches just 49% of users making more than $75,000. YouTube is the only social media platform with more reach at 83% of high-income earners. As for behavior on social networking sites, individuals demonstrate various patterns and designs of social media behavior from reporting quotidian activities to espousing polemical opinions. There are users who are observers restraining from active engagement but rather choosing passive role of observing others. Whichever way, it is obvious that as social media has become a principal mode of social interaction in the past decade, "self-expressive profiles and postings on sites such as Facebook have become an outlet for individuals' motivated social behavior" (Hart et al 2015, p.33).

If to speak about previous research, different studies have found preliminary evidence suggesting that regional differences influence actions in the use of social networking sites (Ku, Chen, & Zhang, 2013). For example, it was found that relationship maintenance was the primary reason why Americans use social networking sites (Ku et al., 2013). Moreover, age and gender might affect how individuals disclose information about themselves. A research by Li, Cheng and Teng (2020) showed that "voluntary sharing of private information, which is decided by the users themselves is a spontaneous activity" (p. 12); not to mention the fact that, "the older users get, their willingness to disclose mandatorily is more significant than to share voluntarily" (p.12). When speaking about younger users of social networking sites, a study by Hall and Pennington (2013) showed that it is more important for Facebook users to present themselves at a younger age. Ultimately, the study suggested that a dishonest Facebook user is more likely to upload a profile picture at a younger age.

When speaking about gender, a study by Lin and Wang (2020) provided strong support for existing gender differences in information sharing on social networking sites. Although the results implied that women and men attach similar importance to social interaction and on social networking sites both want to be connected to others, women emphasize social links and engagement more than me do. The study also showed that females place a significantly greater importance on privacy risk in the development toward information sharing compared to males. In particular, social networking sites attract a large number of users because of their new media features, consequently, subjective standards are likely to have the same impact on behavioural intention across genders (Lin & Wang, 2020).

Furthermore, it is important to point out that in social networking sites an environment in which the boundaries between private and public contact begin to blur and social contexts collapse facilitates not only personal, but also entertaining and positive self-disclosure, while at the same time cultivating a sense of connection (Utz, 2015). On the other hand, due to the collapsed contexts on social media, users of social networking sites often post to all their friends on the site or a large group of them. Posting a relatively intimate content may make the target audience more visible than the potential audience, and may increase the sense of belonging to a smaller or closer community (Utz, 2015). People might not see every planned post from one of their social networking site's friends and, instead, they might see a post that was not specifically meant for them (Utz, 2015).

It is also observed that people have a strong motivation to protect their privacy and it needs to be carefully considered because certain decisions need to be taken in order to objectively evaluate the situation when self-disclosing (Krämer & Schäwel, 2020). Compared to traditional social interactions, which are constrained by environmental factors such as time and location, the digital connection is continuous and boundaryless (Osatuyi et al., 2018).

Methodology of the research, participants, measures and procedures

Research Methods employed in the study were analysis of scientific literature, quantitative research method, confirmatory factor analysis. For the empirical investigation a survey research was carried out. Questionnaire was developed and placed on Qualtrics website. There were two tools employed for gathering data in this research, one of them being Facebook post, the other tool was MTurk which had already been successfully used in psychology and other social sciences as a mechanism for conducting research (Buhrmester et al., 2011). Furthermore, the questionnaire demonstrated that despite the fact that respondents were able to earn some money, the respondents claimed that the main reason for their involvement, was their intrinsic motivation, such as enjoyment. A package of statistical data analysis program SPSS 25.0 was used to process the obtained data, perform factor analysis and scale construction. As mentioned, the survey was first published on Facebook with 170 respondents taking active part in it. Further on, the survey was later uploaded on aforementioned MTurk system which additionally attracted 329 participants.

The data was collected for 6 months. The period of data collection was pre-pandemic time. The questionnaires were filled out by 499 **participants**, however, when uploaded on to the aforementioned statistical analysis program, it showed that 17,3% respondents did not finish the survey. Therefore, results obtained from 411 participants were used in the present analysis, 162 (39.4%) of which were recruited with the help of Facebook post and the remaining 249 (60.5%) participated in the survey via MTurk platform. Male participants made 54.3% of the sample (n = 223), and female participants constituted 45.3% of the sample (n = 186). Participants ranged in age from 16-89 years old with a mean age of 30.10 (SD = 10.45, median = 28 years old). In terms of country participants currently live, 31.6% of the representatives mentioned Lithuania, 27.5% noted United States of America, 18.5% were from India, 5.1% mentioned Brazil, 3.9% noted United Kingdom. The respondents from Canada and France and contributors from Germany, Italy and Spain covered between 1% and 2% of all partakers.

Less than 1% of the participants were from Australia, Denmark, Greece, Ireland, Luxembourg, Mexico, North Macedonia, Poland, Portugal, Romania, The Netherlands, Turkey and Venezuela. Due to the fact that the main focus of the survey was about self-disclosure and communication on social networking sites participants were asked some questions related to this process. The respondents were asked to mark their relationship status. The results demonstrated that 40.1% of the entries indicated their marital status as married, 38.9% as single, 15.3% were dating, 3.2% noted that their relationship status was complicated and lastly, 1.9% marked that they were divorced. Partakers were also asked about the social networking site they prefer and use most often. The data shows that the contributors mostly use Facebook and Instagram with the percentage of 55.2% and 33.6% respectively. When asked how often they use their favourite social networking site, 82,2% marked the answer "daily". The parties were also asked how many friends/followers/connections/matches they have on social networking site they use most, and the most common answer was between 101-500 with a percentage of 46.5%. In addition, the participants were asked to provide approximate percentage of the total number of the size of their social network they regularly interact with, and the answers proved that almost half of the participants (44%) interact with 25% or less of their circle on the social networking site.

Measures. There were measures adopted from previous studies and used as a sample with the aim of improving content validity, however some items were also re-worded to reflect the context of current study on self-disclosure (Table 1).

Questionnaire items

Construct	Items	Sources
Self-disclosure behaviour (SD)	SD1: I am an active participant on social networking sites SD2: I post messages frequently on social networking sites SD3: I have a comprehensive profile on my favourite social networking site	Adapted from Cheung, Lee and Chan (2015), concluded by Ampong et al., (2018); Adapted from Venkatesh et al., (2008), concluded by (Osatuyi et al., 2018).
Shallow disclosure (SHD)	SHD1: I regularly share information on any topic I consider interesting on social networking sites SHD2: I regularly share a variety of casual information about myself on social networking sites SHD3: I regularly share interesting updates about my daily activities with everyone on social networking sites	Adapted from Altman and Taylor (1973), concluded by Osatuyi et al., (2018).
Negative rewards (NR)	NR1: I separated with someone on social networking sites NR2: I felt mistrusted on social networking sites NR3: I felt betrayed on social networking sites	Adapted from Altman et al., (1969).
Intentions (IN)	IN1: I am always honest in my self-disclosures on social networking sites IN2: My self-disclosures on social networking sites are completely accurate reflections of who I am IN3: I always feel completely sincere when I reveal my own feelings and experiences on social networking sites	Adapted from Wheeless and Grotz (1976), concluded by Huang (2016).
Positive rewards (PR)	PR1: I noticed that my relationships with certain people became stronger because of social networking sites PR2: I noticed that my physical intimacy with certain people increased because of social networking sites PR3: I noticed that my emotional intimacy with certain people increased because of social networking sites	Adapted from C. P. Lin (2011).
Satisfaction (ST)	ST1: I am satisfied with my online social life on social networking sites ST2: My online social life on social networking sites is close to my ideal ST3: So far, I have obtained the important things I want from my online social life	Adapted from Diener et al., (1985), concluded by Huang, (2016).
Benefits (BN)	BN1: I established a lot of friendships through social networking sites BN2: I maintain a lot of friendships through social networking sites BN3: I believe that overall social networking sites help me to expand my social circle	Adapted from Krämer & Schäwel (2020).
Deep disclosure (DD)	DD1: I am consciously aware of what I am revealing about myself on social networking sites DD2: I am consciously aware of what I am sharing on social networking sites DD3: I only share personal information with people I feel close and connected to	Adapted from Altman and Taylor (1973), concluded by Osatuyi et al., (2018).

Source: created by the authors of the research.

Self-disclosure practices. The first subtopic consisted of three items all concerning the self-disclosure practices and behaviour on social networking sites, the items by Venkatesh, Brown, Maruping, & Bala (2008) as well as Cheung, Lee, and Chan (2015) were embraced. Examples of items in this subtopic were "I am an active participant on social networking sites", "I post messages frequently on social networking sites" and "I have a comprehensive profile on my favourite social networking site" (concluded by Ampong et al., 2018; Osatuyi et al., 2018). It was expected that participants will think about their overall behaviour on the sites and evaluate it.

Shallow disclosure. The second subtopic of the survey was about participants' shallow disclosure on social networking sites. Items for this scale were adopted from social penetration theory and referred to breadth of penetration (adapted from Altman & Taylor, 1973, concluded by Osatuyi et al., 2018). The three items of this subtopics were "I regularly share information on any topic I consider interesting on social networking sites", "I regularly share a variety of information about myself on social networking sites" and "I regularly share interesting updates about my daily activities with everyone on social networking sites". These items gave insight on breadth category and frequency, which refers to how much information individuals give away about themselves and how much they self-disclose on social networking sites.

Deep disclosure. The next subtopic of the survey was related to the deep disclosure of participants behaviour on social networking sites and was also adopted from social penetration theory by Altman and Taylor (1973, concluded by Osatuyi et al., 2018). Records for this subtopics were "I am consciously aware of what I am revealing about myself on social networking sites", "I am consciously aware of what I am sharing on social networking sites" and "I only share personal information with people I feel close and connected to". These items also relate to views on privacy and personal feelings of individual as people tend to disclose their deepest layers to others when the relationship is deep enough, whereas the public image is visible to others. These items helped to evaluate how people reveal their layers on social networking sites.

Positive rewards. This fourth subtopic was about the positive rewards individuals get when they are self-disclosing and communicating on social networking sites. The items for this scale were acquired from study by Lin (2011) and included statements such as "I noticed that my relationships with certain people became stronger because of social networking sites", "I noticed that my physical intimacy with certain people increased because of social networking sites" and "I noticed that my emotional intimacy with certain people increased because of social networking sites". These reflect mainly social rewards such as social validation, self-expression, relational development and are attained through self-disclosure (Derlega and Grzelak, as cited in Bazarova & Choi, 2014).

Negative rewards. The following subtopic was about negative rewards gained on social networking sites, specifically going into detail about participants' negative emotions and feelings. The units were adopted from a study by Altman et al. (1969). The records regarding negative rewards were "I separated with someone on social networking sites", "I felt mistrusted on social networking sites" and "I felt betrayed on social networking sites". The answers provided by the participants concerning this topic gave valuable information about the darker side of social networking sites.

Intentions. The sixth subtopic included items that are related to participants' intentions towards social networking sites and were adapted from Wheeless and Grotz (1976, concluded by H. Y. Huang, 2016). The entries concerning intentions were "I am always honest in my self-disclosures on social networking sites", "My self-disclosures on social networking sites are completely accurate reflections of who I am and "I always feel completely sincere when I reveal my own feelings

and experiences on social networking sites". These items helped to evaluate to what extent participants feel honest and truthful to themselves when self-disclosing.

Satisfaction. This subtopic encompasses the listing that deals with general satisfaction of the participant regarding his social networking sites, the items were adapted from Diener, Emmons, Larsen and Griffin (1985, concluded by H. Y. Huang, 2016). The entries for this subtopic were "I am satisfied with my online social life on social networking sites", "My online social life on social networking sites is close to my ideal", "So far, I have obtained the important things I want from my online social life".

Benefits. The last subtopic of the survey was about overall benefits gained on the social networking sites where the listings were adapted from Krämer and Schäwel (2020). Entries regarding benefits were "I established a lot of friendships through social networking sites", "I maintain a lot of friendships through social networking sites" and "I believe that overall social networking sites help me to expand my social circle". These items helped to evaluate if participants had a chance to build and maintain relationships on the social networking sites.

Procedures. To measure the process of self- disclosure on social networking sites an online survey was conducted that helped to analyse how individuals disclose themselves and behave on the Internet. It was decided to use English as lingua franca, thus the survey, i. e., the questions were formulated in English. There were eight subtopics in the survey, which consisted of a varying amount of survey-questions each. In total there were 24 items rated on a 7-value scale, four (4) demographic and five (5) questions related to the usage of social networking sites. The demographics collected refer to the gender, age, country of living, and the status of relationship. Whereas questions regarding the usage of social networking sites were about the most frequently used sites, the duration of the participant's registration period, frequency of usage, social network size and percentage of interactions. The items of the survey are not questions, but rather statements that are rated with the described scale by the participant. The chosen scale for 24 items ranged from 'Strongly disagree' to 'Strongly agree'. The Likert scale was chosen because it is lucid and easy to understand and identify with, so the participants feel taken seriously when participating in the survey. Moreover, the Likert method is widely used as a standard psychometric scale to measure responses, as the scale has a procedure for facilitating survey construction and administration, data coding and analysis (Q. Li, 2013). Asking for agreement and disagreement also gives the participant a sense of their opinions being validated, which is a good way to assess their disclosures on social networking sites.

Factor analysis. After the sample was presented, the reliability of the scale needed to be checked. The first step to do this is a confirmatory factor analysis (CFA) which is based on the analysis of correlations between variables and the transformation of the initial variable space into a smaller measurement (factor) space (Vaitkevičius & Sudargienė, 2006). In this confirmatory analysis, the number of factors and the variables describing them are reported before the analysis. The purpose is to verify if the available data support those defined factors (Vaitkevičius & Sudargienė, 2006). With this statistical method the underlying constructs of all items can be identified. Confirmatory approach was chosen because there were eight measures used to explore self-disclosure practices on social networking sites. For this reason, the settings in statistical data analysis program (SPSS) were changed in a way that eight fixed factors were found and displayed. The general self-disclosure behaviour on social networking sites was represented by the construct "Self-disclosure" and three of its items. The second construct was "Negative rewards", the third one was "Intentions", the fourth is "Positive rewards", the fifth one was "Satisfaction", sixth is "Benefits". The questionable seven and eighth factors, which represent items of deep disclosure

were decided to be removed from the analysis, because of the aforementioned low Eigenvalues. After the analysis it was decided that self-disclosure behaviour of shallow and deep disclosure would only be represented by the construct "Self-disclosure".

Scale analysis. To check whether these found constructs are measured in a reliable way Cronbach's alpha was calculated and interpreted, additionally Cronbach's alpha if item is deleted was also included. In general, a construct is measured reliably by its items when alpha has a minimum value of 0.7 (Gilem & Gilem, 2003). According to Gliem and Gliem (2003), an alpha with the value of 0.6 is already questionable but everything below this should be taken out of the survey because there is no reliability given. The construct "Self-disclosure" scored highest at 0.853. The constructs "Negative rewards", "Intentions", "Positive rewards" and "Satisfaction" and "Benefits" all scored between 0.7 and 0.8., so the value of the coefficient alpha is quite high and appropriate for the analysis. It also needs to be considered that these constructs are only measured by three items and that this can also be the reason for a lower coefficient alpha, as it increases with the number of items (Spector, 1992). Statistical analysis was performed with a package of statistical data analysis program SPSS 25.0. The data was coded, values were standardized, averages and statistical significance were calculated.

Results

Scientific literature analysis has suggested that self-disclosure depends on demographic factors, therefore the first hypothesis was formulated: **H1: Self-disclosure on social networking sites differs depending on demographic indicators such as gender, country of living and age.**

To test this first hypothesis that self-disclosure is determined by demographic factors, self-disclosure practices were compared between different genders, countries of living, and age groups. The Student's t criterion (when comparing two groups) and Kruskal Wallis test (for more than two independent samples). The results are displayed in tables 2-4. For the analysis by gender, there were 223 males and 186 females compared in terms of self-disclosure practices on social networking sites. The results are displayed in Table 2.

Table 2

Self-disclosure practices by gender (N=409)

Gender	Self-disclosure practices on social networking sites					
	Self-disclosure	Negative rewards	Intentions	Positive rewards	Satisfaction	Benefits
	Means, standard deviations					
Females (N=186)	4,13 (± 1,57)	3,52 (± 1,55)	5,03 (± 1,13)	4,55 (± 1,34)	4,76 (± 1,17)	4,93 (± 1,28)
Males (N=223)	4,60 (± 1,59)	3,89 (± 1,59)	5,08 (± 1,15)	4,70 (± 1,37)	5,08 (± 1,07)	5,01 (± 1,21)
p	0,003	0,019	0,580	0,243	0,003	0,518

Source: Author's

The analysis of the research results showed that there are statistically significant differences between males and females self-disclosure practices on social networking sites. *Compared to females, males are statistically significantly more likely to have greater self-disclosure behaviour, gain negative rewards and be satisfied with their social networking sites (p<0,05)*. No statistically significant difference was found between the intentions, gained positive rewards and benefits of males and females. These study results partially confirm the first hypothesis of the study that self-disclosure depends on demographic factors in terms of gender. For the analysis by country of living, it was decided to compare means for the two countries with the highest response rates which were Lithuania (N=130) and United States of America (N=113). The results are displayed in Table 3.

Country of living	Self-disclosure practices on social networking sites					
	Self-disclosure	Negative rewards	Intentions	Positive rewards	Satisfaction	Benefits
	Means, standard deviations					
Lithuania (N=130)	3,61 (± 1,39)	3,45 (± 1,32)	4,60 (± 1,13)	4,40 (± 1,17)	4,32 (± 1,01)	4,65 (± 1,29)
United States of America (N=113)	4,81 (± 1,56)	3,83 (± 1,87)	5,45 (± 1,09)	4,81 (± 1,56)	5,37 (± 1,04)	5,16 (± 1,31)
p	0,000	0,072	0,000	0,021	0,000	0,003

Source: Author's

The analysis of the research results showed that there are statistically significant differences between those, who live in Lithuania and in the United States of America on self-disclosure practices on social networking sites. *Compared to residents of Lithuania, the respondents living in the United States of America are statistically significantly more likely to have greater self-disclosure behaviour, honest intentions towards social networking sites, are more satisfied, gain more benefits and positive rewards on social networking sites (p<0,05).*

No statistically significant differences were found between gaining negative rewards of residents of Lithuania and the United States of America. These study results confirm the first hypothesis raised in this study that self-disclosure depends on demographic factors in terms of country of living. For the analysis on self-disclosure on social networking sites by age, all the respondents were grouped into five age groups: under 25 (N=173), 26-35 (N=139), 36-45 (N=60), 46-55 (N=25), 56 and over (N=12). The results are displayed in Table 4.

Age groups	Self-disclosure practices on social networking sites					
	Self-disclosure	Negative rewards	Intentions	Positive rewards	Satisfaction	Benefits
	Mean ranks, means, standard deviations					
Under 25 (N=173)	181,72 4,12 (± 1,55)	209,44 3,79 (± 1,35)	172,21 4,76 (± 1,11)	200,35 4,66 (± 1,15)	167,13 4,55 (± 1,18)	201,12 4,97 (± 1,16)
26-35 (N=139)	230,51 4,69 (± 1,66)	212,21 3,82 (± 1,78)	232,51 5,29 (± 1,17)	217,38 4,72 (± 1,48)	238,09 5,25 (± 1,01)	210,43 4,99 (± 1,33)
36-45 (N=60)	208,63 4,49 (± 1,42)	183,09 3,43 (± 1,49)	200,98 5,08 (± 1,03)	186,05 4,43 (± 1,39)	217,73 5,11 (± 0,88)	206,36 5,02 (± 1,19)
46-55 (N=25)	218,30 4,56 (± 1,60)	217,96 3,93 (± 1,97)	260,08 5,61 (± 0,84)	216,12 4,73 (± 1,49)	227,80 5,20 (± 1,13)	195,18 4,93 (± 1,13)
56 and over (N=12)	199,21 4,28 (± 1,59)	140,13 2,83 (± 1,59)	264,42 5,64 (± 1,14)	200,17 4,41 (± 1,35)	256,42 5,39 (± 1,13)	211,67 5,06 (± 1,24)
p	0,009	0,149	0,000	0,463	0,000	0,951

Source: Author's

The analysis of the results showed that there are no statistically significant differences between different age groups and gained negative, positive rewards and benefits. However, statistically significant differences were found between different age groups and self-disclosure, intentions, and benefits. *The respondents under 25 have statistically significant lower self-disclosure, are less satisfied and not always have honest intentions towards social networking sites (p<0,05).* These study results confirm the first hypothesis of the study that self-disclosure depends on demographic factors in terms of different age groups.

Furthermore, scientific literature analysis discussed how self-disclosure influences relational development, therefore the second hypothesis was formulated: **H2: Self-disclosure on social networking sites differs depending on relationship status.** In order to test this hypothesis and determine whether the self-disclosure practices of people with different relationship status is different, it was decided to evaluate and compare the averages of the self-disclosure practices of males and females in terms whether they are single, dating/in a relationship or married. The Kruskal Wallis test was used for several independent samples. The results are displayed in tables 5-6.

Table 5

Women self-disclosure practices in terms of relationship status (N=186)

Age groups	Self-disclosure practices on social networking sites					
	Self-disclosure	Negative rewards	Intentions	Positive rewards	Satisfaction	Benefits
	Mean ranks, means, standard deviations					
Single (N=61)	81,70 3,98 (± 1,59)	92,05 3,59 (± 1,28)	71,85 4,60 (± 1,29)	89,97 4,67 (± 1,24)	67,95 4,25 (± 1,14)	89,26 4,98 (± 1,25)
Dating (N=42)	66,93 3,55 (± 1,52)	81,27 3,27 (± 1,49)	89,52 5,07 (± 1,07)	82,19 4,51 (± 1,20)	83,35 4,67 (± 1,17)	80,87 4,76 (± 1,42)
Married (N=72)	105,63 4,67 (± 1,53)	88,49 3,59 (± 1,79)	100,79 5,29 (± 0,93)	89,72 4,57 (± 1,47)	107,70 5,24 (± 1,06)	91,09 5,00 (± 1,25)
p	0,000	0,565	0,004	0,693	0,000	0,564

Source: Author's

The examination of the results showed that there are no statistically significant differences between women with different relationship status on gained benefits, positive and negative rewards. Nonetheless, statistically significant differences were found between women with different relationship status and self-disclosure, intentions, and satisfaction. *Dating women have statistically significant lower self-disclosure, while single women not always have honest intentions towards social networking sites and are less satisfied (p<0,05).* These study results confirm the second hypothesis of the study that self-disclosure depends on relationship status.

The same self-disclosure assessment was performed in the male group depending on their relationship status. The analysis of the research results showed that there are statistically significant differences between male relationship status and almost all self-disclosure practices, except gaining negative rewards. More specifically, the difference is significant in self-disclosure, intentions, positive rewards, satisfaction, and benefits. *Dating men have statistically significant lower self-disclosure and perceived benefits, while single men not always have honest intentions towards social networking sites, gained fewer positive rewards and are less satisfied (p<0,05).* These study results confirm the second hypothesis of the study that self-disclosure depends on relationship status.

In order to test the third hypothesis, whether self-disclosure correlates with perceived positive

Age groups	Self-disclosure practices on social networking sites					
	Self-disclosure	Negative rewards	Intentions	Positive rewards	Satisfaction	Benefits
	Mean ranks, means, standard deviations					
Single (N=99)	93,29 4,30 (± 1,66)	101,75 3,84 (± 34)	87,95 4,73 (± 1,16)	96,45 4,53 (± 1,21)	89,03 4,82 (± 1,14)	97,60 4,89 (± 1,10)
Dating (N=20)	92,40 4,45 (± 1,33)	87,25 3,43 (± 1,37)	118,53 5,32 (± 1,00)	98,28 4,53 (± 1,53)	104,13 5,09 (± 0,98)	87,45 4,65 (± 1,10)
Married (N=93)	123,59 5,09 (± 1,43)	115,69 4,18 (± 1,83)	123,66 5,39 (± 1,14)	120,03 4,91 (± 1,48)	125,61 5,44 (± 1,00)	120,07 5,22 (± 1,33)
p	0,002	0,097	0,000	0,017	0,000	0,013

Table 6

Men self-disclosure practices in terms of relationship status (N=223)

Source: Author's

and negative rewards it was decided to assess how women's and men's self-disclosure correlates with positive and negative rewards. The third hypothesis was formulated: **H3: Self-disclosure practices on social networking sites correlates with perceived negative and positive rewards.** For this purpose, a Pearson's correlation test was performed separately in groups of men and women to determine the relationship between self-disclosure and positive and negative rewards. The results are displayed in tables 7-8.

Correlations		Self-disclosure	Negative rewards	Positive rewards
Self-disclosure	Pearson Correlation	1		
	Sig. (2-tailed)			
Negative rewards	Pearson Correlation	.306**	1	
	Sig. (2-tailed)	.000		
Positive rewards	Pearson Correlation	.627**	.309**	1
	Sig. (2-tailed)	.000	.000	

Table 7

Correlations between self-disclosure and positive and negative rewards in the male group (N=233)

Source: Author's

The analysis of the results of the study in a male group showed that there is a strong correlation between self-disclosure and perceived positive and negative rewards, but men are gaining more positive than negative rewards in social networking sites (p≤0,01).

The same analysis in the group of women found that there are also strong correlations between self-disclosure and positive and negative rewards (p≤0,01). These correlations showed that when self-disclosing, men are gaining more negative as well as more positive rewards than women. These study results confirm the third hypothesis of the study that self-disclosure correlates with perceived positive and negative rewards.

The fourth hypothesis was raised: **H4: Self-disclosure practices on social networking sites correlates with gained benefits and overall satisfaction.** This hypothesis was tested in terms of if self-disclosure correlates with gained benefits and overall satisfaction on social networking

Table 8

Correlations between
self-disclosure and
positive and negative
rewards in the female
group (N=186)

Correlations		Self-disclosure	Negative rewards	Positive rewards
Self-disclosure	Pearson Correlation	1		
	Sig. (2-tailed)			
Negative rewards	Pearson Correlation	.259**	1	
	Sig. (2-tailed)	.000		
Positive rewards	Pearson Correlation	.512**	.201**	1
	Sig. (2-tailed)	.000	.006	

Source: Author's

sites. Pearson's correlation test was performed to evaluate the links between self-disclosure and gained benefits as well as overall satisfaction. The results are displayed in Table 9.

The examination of the results showed that there are strong correlations between self-disclosure and perceived benefits and satisfaction. These study results confirm the fourth hypothesis

Table 9

Correlations between
self-disclosure, benefits,
and satisfaction (N=411)

Correlations		Self-disclosure	Satisfaction	Benefits
Self-disclosure	Pearson Correlation	1		
	Sig. (2-tailed)			
Satisfaction	Pearson Correlation	.286**	1	
	Sig. (2-tailed)	.000		
Benefits	Pearson Correlation	.588**	.357**	1
	Sig. (2-tailed)	.000	.000	

Source: Author's

of the study that self-disclosure correlates with gained benefits and overall satisfaction ($p \leq 0,01$). Ultimately, it is necessary to discuss the overall results of the study that prove social penetration theory to be a useful theoretical framework for the analysis of self-disclosure in communication, relational maintenance, and development on social networking sites, in particular, when evaluating self-disclosure behaviour, perceived negative and positive rewards, intentions, satisfaction and gained benefits. The research revealed a fairly comprehensive picture of how people self-disclose themselves to others.

The study revealed that males are statistically significantly more likely to have greater self-disclosure behaviour, gain negative rewards and be satisfied with their social networking sites, compared to females. No statistically significant difference was found between the intentions, gained positive rewards or benefits of males and females. Respondents living in the United States of America are statistically significantly more likely to have greater self-disclosure behaviour, have less honest intentions towards social networking sites, are more satisfied and gain more benefits and positive rewards on social networking sites when compared to residents of Lithuania. No statistically significant difference was found between gaining negative rewards of residents of Lithuania and the United States of America.

Statistically significant differences were found between different age groups and self-disclosure, intentions, and benefits. Respondents under 25 have statistically significant lower self-disclosure, are less satisfied and not always have honest intentions towards social networking sites. No statistically significant differences were found between different age groups and gained negative, positive rewards and benefits. Statistically significant differences were found between women with different relationship status and self-disclosure, intentions, and satisfaction. Dating women have statistically significant lower self-disclosure, while single women do not always have honest intentions towards social networking sites and their level of satisfaction is lower. No statistically significant differences were found between women with different relationship status on gained benefits, positive and negative rewards.

There are statistically significant differences between male relationship status and almost all self-disclosure practices, except gaining negative rewards. The difference is significant in self-disclosure, intentions, positive rewards, satisfaction, and benefits. Dating men have statistically significant lower self-disclosure and perceived benefits, while single men do not always have honest intentions towards social networking sites, gained fewer positive rewards and are less satisfied. There are strong correlations between self-disclosure and positive and negative rewards. These correlations showed that when self-disclosing, men are gaining more negative as well as more positive rewards than women. There are strong correlations between self-disclosure and perceived benefits and satisfaction. These correlations confirm that self-disclosure correlates with gained benefits and overall satisfaction.

Conclusions

The main theory employed in this research helped to evaluate self-disclosure behaviour in a context of different stages of disclosure and penetration, depth, and breadth, as well as the assessment of rewards and costs rationale. Self-disclosure and its effects on relational development and maintenance were analysed in the context of social networking sites, especially with the development of new technologies.

The research carried out in this study proved that self-disclosure is an important aspect of building and maintaining relationships, as it affects the closeness and intimacy of individuals.

This study employed social penetration theory as a theoretical framework for analysing self-disclosure and communication, however, the analysis did not consider one important issue related to social networking sites, which is privacy. Future studies could use communication privacy management theory in line with the social penetration theory to analyse how self-disclosure intercorrelates with privacy concerns. Given the increasing number of social networking sites use and blurring boundaries between private and public contacts, privacy notions would reveal what people tend to disclose and what information is concealed. It would be also useful to know what elements and themes users of social networking sites implement on their profiles and whether they are familiar with the opportunities to manage and control the access to their public profiles and personal information.

The investigation on how people build and maintain relationships in the digital age solicited the analysis of self-disclosure in the context of social networking sites which revealed that:

» Males are statistically significantly more likely to have greater self-disclosure behaviour, gain negative rewards and be satisfied with their social networking sites, compared to females. No statistically significant difference was found between the intentions, gained positive rewards or benefits of males and females;

» Respondents living in the United States of America are statistically significantly more likely to have greater self-disclosure behaviour, have less honest intentions towards social network-

ing sites, are more satisfied and gain more benefits and positive rewards on social networking sites when compared to residents of Lithuania. No statistically significant difference was found between gaining negative rewards of residents of Lithuania and the United States of America;

» Statistically significant differences were found between different age groups and self-disclosure, intentions, and benefits. Respondents under 25 have statistically significant lower self-disclosure, are less satisfied and not always have honest intentions towards social networking sites. No statistically significant differences were found between different age groups and gained negative, positive rewards and benefits;

» Statistically significant differences were found between women with different relationship status and self-disclosure, intentions, and satisfaction. Dating women have statistically significant lower self-disclosure, while single women do not always have honest intentions towards social networking sites and their level of satisfaction is lower. No statistically significant differences were found between women with different relationship status on gained benefits, positive and negative rewards;

» There are statistically significant differences between male relationship status and almost all self-disclosure practices, except gaining negative rewards. The difference is significant in self-disclosure, intentions, positive rewards, satisfaction, and benefits. Dating men have statistically significant lower self-disclosure and perceived benefits, while single men do not always have honest intentions towards social networking sites, gained fewer positive rewards and are less satisfied;

» There are strong correlations between self-disclosure and positive and negative rewards. These correlations showed that when self-disclosing, men are gaining more negative as well as more positive rewards than women;

» There are strong correlations between self-disclosure and perceived benefits and satisfaction. These correlations confirm that self-disclosure correlates with gained benefits and overall satisfaction.

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