DEPARTMENT OF APPLIED IT

"DARLING, WE NEED TO TALK. SWITCH ON YOUR PHONE, PLEASE!"

Patterns of Communication Channel Use for Self-Disclosure in Long-Distance Romantic Relationships

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COMMUNICATION CHANNEL USE AND SELF-DISCLOSURE IN LONG-DISTANCE ROMANTIC RELATIONSHIPS

by

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Abstract

Based on social penetration theory, social information processing theory and media synchronicity theory, the present study explores the role of different communication channels in romantic relationships in terms of self-disclosure. Especially, it seeks to investigate how self-disclosure influences the choice of communication channel use within long-distance romantic relationships. A total of 101 respondents participated in an online survey. Even though instant messenger was found to be the most frequently used mediated channel within any kind of romantic relationships, it is not used when self-disclosing intimate matters. Face-to-face was found to be the preferred channel for self-diclsoure followed by telephone among long-distance couples exceeding web cam call. This is an indication that cue multiplicity of computer-mediated channels, does not account for a preferred use. Cue multiplicity here refers to the amount of different ways of how messages can be transported, one example would be the tone of voice (Dennis & Vallacich, 1999).

Keywords

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Table of Content

1. Introduction

It was 1991 when the world wide web became available to general society. Ever since then, when computer-mediated communication (CMC) was established, people have used the internet to communicate with business partners, acquaintances, friends and families that live far away and to establish and maintain (romantic) relationships (Sprecher, 2009). With the invention of *Social Media* people are enabled to participate actively in creating and sharing information and network openly within society. These new forms of communication led to a transformation for some interpersonal relationships. Prior to these inventions, relationships were established and mainly sustained by face-to-face (FtF) interactions. Social technology has come to complement those relationships nowadays and thus revolutionized relationship development (Merkle & Richardson, 2000). Digitalization and development in communication technology paved the way for communication across countries and hence, made it possible to stay in good contact within a long-distance romantic relationships (LDRRs). Romantic relationships in which partners are physically separated became increasingly common (Stafford, 2005). Many scholars seek to find out, whether LDRRs are as successful as geographically close romantic relationships (GCRRs) and study relational uncertainty, the role of communication channels and online relationships (Cameron & Ross, 2007, Sprecher, 2009, Borelli et al., 2015).

This study discusses the importance of self-disclosure for relationship formation and investigates the role of communication channels for self-disclosure in long-distance romantic relationships. Drawing from social penetration theory (Altman & Taylor, 1973) to literature on self-disclosure (Hargie, 2011, Descutner & Thelen, 1991), social exchange and social information processing theory (Cropazano, 2013, Cropazano & Mitchell, 2005, Walther, 2008) and media synchronicity and media richness theory (Dennis & Valacich, 1999, Daft & Lengel, 1986), the present study explores what communication channel is preferred when self-disclosing in a LDRR and if different situations of self-disclosure makes a difference when choosing the preferred communication channel. Furthermore, this study investigates if there is a pattern of communication channel choice for specific situations of self-disclosure based on carefully selected questions from the Fear of Intimacy Scale (FIS) developed by Descutner & Thelen (1991).

This study contributes to the LDRR literature in the following way: First, it explores preferences of communication channel use in romantic relationships. Second, it discovers communication patterns based on the FIS and differentiates between different communication channels for self-disclosure. Specifically, this study applies the media synchronicity and media richness theory within the context of interpersonal relationship development.

2. Literature Review

This section reviews previous studies on romantic (long-distance) relationships and introduces the concept of self-disclosure. It first introduces general research on LDRRs, followed by the demonstrated influence of self-disclosure on relationship development based on the social exchange theory and social information processing theory. Then, this section reviews the communication channel choice based on the media synchronicity theory. While previous research is reviewed, the hypotheses and research questions are also presented.

2.1.   Defining Long Distance Romantic Relationships (LDRRs)

With widespread adaption of communication technology and growing mobility, it has become more common nowadays to maintain romantic relationships over distance (Jiang & Hancock, 2013). A definition of LDRRs can be found in Dainton & Aylor (2002) who described a LDRR is one in which partners "cannot see each other face-to-face most days" (p. 122). Hence, physical proximity is an important feature when it comes to defining a long-distance relationship. People can be separated for various reasons, among which are educational demands, dual career pursuits, military employment, immigration or other factors (Stafford, 2005). Dargie & Blair et al. (2015) suggests that a simple generalization of all LDRRs and then comparing them to geographically close romantic relationships (GCRRs) is not enough. Instead the question "what *kind* of LDDR are you in?" should rather be asked. As Dargie & Blair et al. (2015) claims, "LDDRs[1] could be categorized on the basis of how often partners see each other, how far apart partners are from one another, and so forth" (p. 182). These characteristics are important to consider as they influence relational satisfaction (Stafford, 2005). Self-definition of relationship comes to play in the scope of this study as participants were asked to define their relationship by indicating if they are or have ever been in a long-distance relationship as it will be explained in the Methodology-Section 3. Another factor that can be distinguished when talking about LDRRs is initiation of relationships. A fairly new emerging form of interpersonal relationships are computer-mediated romantic relationships (CMRRs). Those are characterized by zero proximity and an initiation

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[1] Dargie et al. (2015) refers to long-distance dating relationship (LDDR).

of relationship that occurred online (Merkle & Richardson, 2000). As indicated in the name, CMRs function only by communication through online channels.

2.2.   Social Penetration Theory (a Relationship Stage Theory)

The important aspects that account for the development of relationships are changes in verbal, non-verbal and environmentally oriented behavior (Mongeau & Henningsen, 2008). Those changes in verbal behavior focus on self-disclosure according to a relationship stage theory that has been developed by Altman & Taylor in 1973. Mongeau & Miller Henningsen's general definition of stage theories includes the attempts to describe "how initiate, escalate and dissolve relationships […] and explain how and why interpersonal communication changes as relationships move from strangers or acquaintances to close friends or romantic partners, and perhaps back again" (Mongeau & Henningsen, 2008, p. 2). The social penetration theory indicates how communication and self-disclosure change as the relationship develops. The theory was developed in 1973 by Altman & Taylor and introduces the concept of personality being multilayered. According to Taylor (1968), the development of interpersonal relations is "thought to proceed along two related dimensions, breath of penetration […] and depth of penetration" (Taylor, 1968, p. 79). Breath of penetration refers to the amount of information exchange, meaning the number of different topics that are being talked about whereas depth of penetration, according to Taylor (1968) refers to "the degree of intimacy of a typical interaction or exchange (p. 79). In his study, Taylor (1968) found that the level of intimacy with time and reciprocity of self-disclosure is crucial and both self-disclosure and mutual activities among his dyads under study increased with time. Altman & Taylor (1973) use the 'onion metaphor' to explain this phenomenon of breadth and depth of penetration.
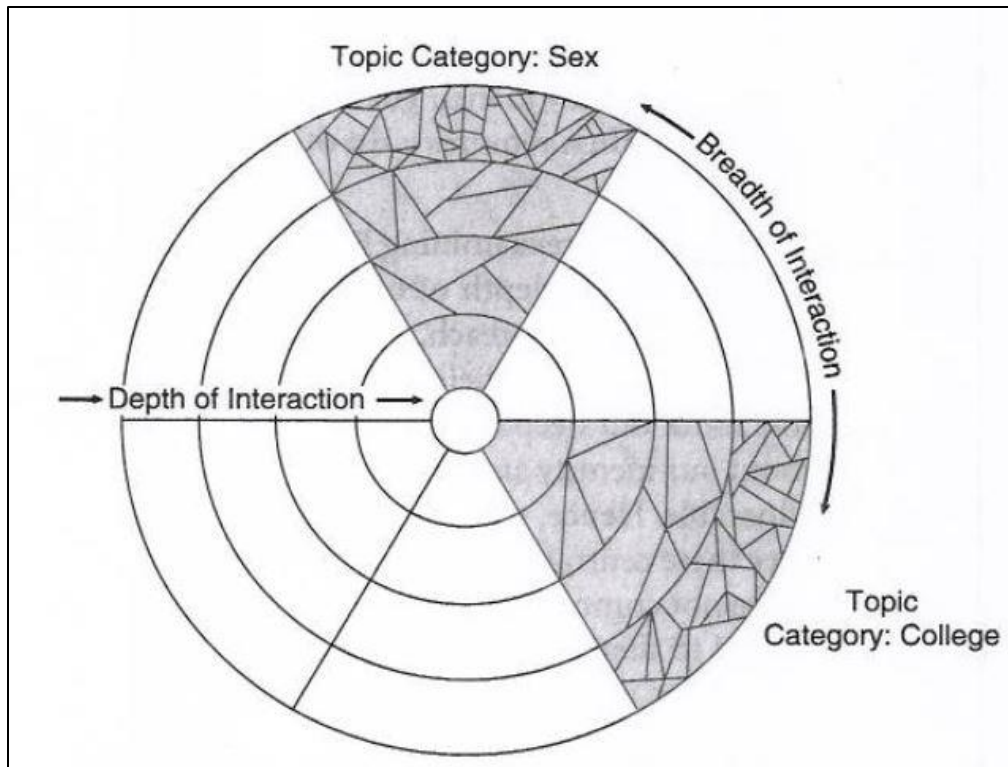
Figure 1: Breadth and Depth of Social Penetration

Illustrated in figure 1, taken from Knapp & Vangelisti (2008), the onion represents the multilayers of peoples' personalities and exemplifies the breadth of interaction with the topic categories sex and college. Depth in this illustration represents the penetration through the different layers, from the superficial layer, meaning the public self until reaching the core of the metaphorical onion referring to the personal self (Knapp & Vangelisti, 2008). As this relational development is enhanced by mutual self-disclosure, the concept of self-disclosure will be the core of this study as further described in the following sub-section 2.3.

2.3. Self-Disclosure

Self-disclosure is a domain that has been studied extensively in the past decades. Yet, scholars have not agreed on a clear definition. In its wider meaning, self-disclosure is characterized by revealing intentionally information about yourself to another person which would not be accessible otherwise (Hargie, 2011, Baxter & Bullis, 1986, Fox et al., 2013). This includes not only facts but also experiences and feelings, hence, more intimate information. Jiang & Hancock (2013) includes "the communication of personal facts, thoughts, and emotions to another" in the concept of self-disclosure (p. 557). Hargie (2011) defined four key features of self-disclosure: People can disclose about facts or feelings, about self or other, referring

to past, present or future events using the personal pronoun (Hargie, 2011, p. 242). An example could be Sam talking to Sarah: *I will have a job interview tomorrow. I'm so excited about it but also scared at the same time. If I don't get the job, my parents will have to support me next month although they are short on money as well.* Sam uses the personal pronoun *I, my, they* and talks about a factual event in the future: the job interview taking place tomorrow. Sam also points out his feelings: he is excited but scared. Thus, he discloses about himself but also about his parents, saying that they are short of money. By disclosing to his friend Sarah, Sam is taking the risk to be hurt as "the expression of personal feelings involves greater risk and places the discloser in a more vulnerable position" (Hargie, 2011, p. 243). Talking about personal fears and family secrets (that his parents are short on money) involves a great amount of trust. Trust and self-disclosure are highly interdependent. Disclosure makes people vulnerable, thus it requires a high amount of trust, as Hargie (2011) points out, it means "that we need to trust others before we will disclose. Interestingly, however, a paradox here is that self-disclosure requires trust, but also creates it" (p. 269).

Self-disclosure, trust and intimacy are important factors for relationship development. Taylor & Altmann (1987) found that "communication and disclosure intimacy appear to be the sine qua non of developing satisfying interpersonal relationships" (p. 257). Intimacy though, is said to be an interpersonal process that "develops when one party (termed the discloser) reveals personally relevant information, thoughts, or feelings to the partner (the disclosive act). It continues when the partner's response addresses the specific content of the disclosure and conveys understanding, validation, and caring for the discloser (the responsive act)" (Jiang & Hancock, 2013, p. 557). This exchange of information consequently has an impact on the relationship between the discloser (the person who gives information) and the person who receives the information that is the receiver (Hargie, 2011).

It is important to notice here, that self-disclosure usually is not only one-sided. Instead, reciprocity of self-disclosure is the driving force of relationship development (Mongeau & Henningsen, 2008). One possible reason for it, is that self-disclosure can be regarded as a personal "cost", that is, you give something away for the sake of an intimate relationship. According to the social exchange

theory, that will be explained in the following section 2.4, we favor relationships in which "rewards" are higher than costs. Hence, if self-disclosure is regarded as "cost" we expect our partner to also self-disclose in return which can be regarded as "reward". Mongeau & Henningsen (2008) found evidence by claiming that "rewards and costs associated with interpersonal interactions drive relationship development" (Mongeau & Henningsen, 2008).

2.4.   Social Exchange Theory

Exchange theories have their roots in economics and, according to Stafford (2008), posits that, just as in a profit-oriented exchange, "decisions are based on projections of the rewards and costs of a particular course of action" (p. 2). Thus, in social exchange, action and behavior depend on what we believe is profitable. Stafford (2008) points out, that it is not always about maximizing rewards and minimizing costs but rather a matter of fairness and reciprocity (p. 2). Stafford further defines rewards as "sources of positive reinforcement such as social acceptance, instrumental services, power, or prestige" (p. 18). In turn, costs are defined as "punishments or lost rewards such as investments of time and effort" (Stafford, 2008, p. 18). According to Cropanzano (2013) trust develops through three stages. The first one is calculus-based trust. It is "grounded in the balance between the costs and benefits of the relationship" (p. 724). If benefits outweigh costs, this sort of trust exists (Cropanzano, 2013). Due to this exchange, "relationships evolve over time into trusting, loyal and mutual commitments" (Cropanzano & Mitchell, 2005, p. 875). Reciprocity of self-disclosure might be explained by applying this theory of exchange. And as Hargie (2011) states, trust and self-disclosure are interdependent and their reciprocity contributes to an intimate relationship development, the present study is interested in whether there is a dependency between the message that is disclosed and the communication channel available.

2.5.   Social Information Processing Theory (SIPT) and Self-Disclosure

Self-disclosure as a reciprocal process of giving and receiving private and intimate information between partners in a romantic relationship is influenced by different factors (Hargie, 2011). The ones under study are trust and physical proximity. The reason for this is that in a LDRR, physical proximity is hardly or only very rarely

possible. This separation, as it is claimed by Stafford (2010) "leads to restricted communication, reduced interdependence, and heightened uncertainty about the future of the relationship" (Jiang & Hancock, 2013, p. 559). To overcome these uncertainties, "he or she may engage in more frequent self-disclosures and perceive the partner's reciprocal disclosures as an expression of intimacy" (Jiang & Hancock, 2013, p. 559). As, due to distance, couples nowadays find themselves interacting in a computer-mediated environment, the ideal channel must be negotiated individually for relationship maintenance. In this computer-mediated environment, computer-mediated communication (CMC), which originally only included email and computer conferencing, is very important to establish and develop an interpersonal relationship (Walther, 2008). In earlier research on CMC, scholars posited that CMC leads to impersonal communication, as it was regarded as rather task oriented, impersonal and even hostile (Walther, Anderson & Park, 1994). The lack of nonverbal and relational cues served as explanation for this phenomenon and paved the way for establishing the "cues-filtered-out approaches" by Culnan & Markus (1987). Over the years, however, there were many critiques and researchers claimed that the cues-filtered-out approaches were not accurate as there was not enough empirical support for these claims (Walther, Anderson, & Park, 1994). In 1992, Joseph Walther developed the social information processing theory (SIPT) that explained, how people can establish a relationship and get to know each other online even though nonverbal cues are absent. This theory was mostly developed considering online communication channels such as email (an asynchronous platform) and chat systems and instant messaging ones (both synchronous platforms). The SIPT posits that after a given amount of time and a given number of messages that has been exchanged, the efficacy of CMC is no more and no less than the efficacy of a face-to-face interaction (Walther J. B., 2008). It may take longer, however, the outcome would not be so different. As Walther further points out, impression development and management of interpersonal relations come through the personal and relational information accrual via CMC (Walther J. B., 2008). Another relevant aspect of SIPT is the translation of nonverbal cues offline into verbal and textual cues online. In this process, language plays an essential role, since any visual or spoken cues are not available but only written symbols that might replace nonverbal functions of the interaction. That is another reason why the development of an 'online' relationship

supposedly takes longer. Early views of CMC are based on the assumption that CMC is text-based only. Nowadays, however, with growing technologies, video chat and also audio and visual messages fall into the CMC categories and that challenged old theories (Yin, 2009). In the framework of this study, SIPT is only applicable to a certain extent, as SIPT mostly was developed to examine relationships that were initiated online and are also escalating online. This study, however, takes LDRRs into account in which couples do see each other at least on a semi-regular basis.

When it comes to self-disclosure as an important factor to establish intimacy in an interpersonal relationship, scholars claim that this is achieved even more easy in computer-mediated relationships (e.g. Walther J. B., 2008; Jiang & Hancock, 2013; Merkle & Richardson, 2000). As geographic distance restricts the dyads to CMC, the need for personal bonding may result in more frequent self-disclosures (Jiang & Hancock, 2013). Jiang & Hancock support this with an empirical study, affirming that self-disclosure increases as cue-multiplicity and synchronicity decreases. These hypotheses were affirmed by means of a diary study with 876 diaries tested. This finding support also Merkle & Richardson (2010), claiming that "the global presence of the Internet diminishes the need for spatial proximity; the textual and graphical based interface of Internet applications reduces the salience of physical attractiveness". A great amount of anonymity is given and thus makes self-disclo-sure to be the primary means of developing intimacy (Merkle & Richardson, 2000, p. 188). Taking CMC on the next level, Tidwell & Walther (2002) introduced the hyperpersonal model, positing that people who use CMC can compensate for any constraint by hyperpersonalizing their communication. Farrer & Gavin (2009) ex-plained that "CMC partners exploit the benefits of text-based communication to en-gage in, for example, selective self-presentation and partner idealization. This can lead to positively skewed perceptions leading to elevated feelings of intimacy (p. 408)."

Previous studies have shown that the choice of media matters in LDRRs (Dainton & Aylor, 2002; Jiang & Hancock, 2013). With increasing digitalization, the affordances different media offer, influences the user behavior and the purpose for what the respective media is being used (Norman, 1999). That rapid development of new technologies allows people to maintain a romantic relationship across the

globe as it is possible, thanks to different communication channels, to keep steady contact. As in any interpersonal interaction, the variety of topics that has been talked about varies greatly and each topic might be given a different degree of importance and intimacy. That depends on the breadth and depth of self-disclosure (Altman & Taylor, 1973). Therefore, with the great variety of different communication channels that exist nowadays, it is being distinguished between synchronous (real time) and asynchronous (store-and-forward) channels (Walther, 2008). Those different types of channels play a role when disclosing sensitive topics in a romantic relationship. It has to be decided which media suits which purpose best. Thus, this quantitative study was carried out in order to examine whether synchronous, asynchronous or semi-synchronous media is favorized when self-disclosing certain matters.

2.6.   Communication Channel Choice and Self-Disclosure

Because of findings by SIPT scholars, the media synchronicity theory, developed by Dennis and Valacich (1999), is an important theory in this field of study as it was originally designed for group related tasks and describes five characteristics that can affect communication and channels being used for different kinds of tasks. The scholars give a definition of the characteristics within the media synchronicity theory (1999) and describe the differences. The first characteristic is *immediacy of feedback*, which is "the extent to which a medium enables users to give rapid feedback on the communications they receive" (p. 2). The second one is *symbol variety*. Symbol variety refers to "the number of ways in which information can be communicated" (p. 2). It can be assumed that some messages require a multiplicity of cues and language variety because some messages may be better conveyed by including non-verbal symbols. Another characteristic is p*arallelism* and refers to the "width" of the medium. The degree of parallelism increases with the number of simultaneous conversations that can exist. *Rehearseability* is the fourth characteristic and refers to the possibility of editing the message before sending it to make sure that "the intended meaning is expressed exactly" (p. 3). The fifth and last characteristic is *reprocessability.* Reprocessability refers to "the extent to which a message can be reexamined or processed again within the context of the communication event" (Dennis & Valacich, 1999, p. 3). An example for this characteristic is the communicative event of a person standing in front of an ice

cream shop placing an order to the vendor by saying: *I'd like choco… eehm… strawberry ice cream, please*. The person in this example was able to reprocess the message before sending it. The theory suggests that media richness depends on the nature of the task and different media might be used rather for tasks of equivocality than for tasks of uncertainty (Dennis & Valacich 1999). The last example shows that, if the person would have placed the order via CMC, he or she would not have had the possibility to reprocess but to rehearse it. If he or she had changed her mind after sending the message and placing the order, the possibility of ordering strawberry instead of chocolate would be limited. The theory further posits that there is no medium "richer" than another as "ranking media in absolute terms is not practical" (Dennis & Valacich, 1999, p. 3). If a medium is better than another has nothing to do with the medium itself but with the above explained characteristics or dimensions that are "most important for a given situation" (p. 8).

The preceded theory of media richness was developed by Daft & Lengel (1986). The scholars divided "rich" and less "rich" media. If a media was "rich" depended on the multiplicity of interpretations for available information, e. g. FtF. If there were a lack of information, a medium was regarded as less "rich", e. g. computer-mediated information. As it is explained by Dennis & Valacich (1999), "media richness theory argues that certain media are better able to transmit information depending upon whether the information is used in situations of uncertainty or equivocality" (p. 1).

The theory of media richness has been picked up by scholars to measure for example the effects of distance to working teams (Bradner & Mark, 2002). The experimental study examined in what way distance has an impact on working groups in an environment of CMC only. Bradner & Mark (2002) focused on cooperation, persuasion and deception and if the influence would be any different between distant working groups and proximate working groups. The results show that geographical distance does influence one's "willingness to initially cooperate with, be persuaded by, and deceive that partner" (p. 232). However, the study also showed that with increasing number of interaction, cooperation increases as well. The scholars further proved that trust increased by 20 % (from 57 % to 78 %) between the first and the last trial. Those findings support also Walther's (2008) SIPT, indicating that trust increases with interaction. A limitation of Bradners &

Mark's study is the absence of media effects, indicating that "no effects of the different media (video and IM) emerged while we found effects of perceived distance" (2002, p. 233). Applying the media richness theory by Daft & Lengel (1986) as well as the media synchronicity theory by Dennis & Valachich (1999) can be problematic in the field of relational communication. This is because both theories originally have been developed for group related tasks and in the working group context. Due to the lack of parameters, it makes it difficult and maybe not reliable to apply them in the interpersonal relationship research. However, the basic idea that different media might be chosen to convey different information is worth further examination in the romantic relationship context.

2.7.   Hypothesis and Research Questions

The absence of media effect and the proof that cooperation and trust increase with interaction paves the ground for this empirical study. Supposedly, the frequency of interaction in a romantic relationship is decisive for its development and also the frequency of self-disclosing for developing trust. Because media synchronicity theory suggests that whether a medium is suitable for a certain situation depends on the dimensions that are most important for it, it can be posited that within romantic relationships, the choice of media matters when it comes to self-disclosing as an important factor of relationship development.

The research questions this study seeks to answer are:

Q1: What communication channel is preferred when self-disclosing within a LDRR?

Q2: What communication channel is most suitable for self-disclosing specific topics in a LDRR?

Q3: Is there a pattern of preferences for communication channels when self-disclosing certain topics in a LDRR?

Thus, this study hypothesizes the following:

H1: In a long-distance romantic relationship, the communication channel that is most frequently used is not a synchronous channel other than in geographically-close romantic relationships.

H2: In a long-distance romantic relationship, partners are drawn to a greater variety of communication channels and use both synchronous and asynchronous channels for specific situations of self-disclosure.

3. Methodology

This section describes the research design used for this study. It further explains the detailed process of how the study was undertaken and introduces the participants who took part in the study. Moreover, this section indicates the different measures that were used for analyzing the questionnaire and describes the steps that lead to the findings. The purpose of this study is to explore the association of synchronous, semi-synchronous and asynchronous communication channels and their use of different types of self-disclosure situations.

3.1. Procedures

The questionnaire was designed by adapting questions from three different studies. Demographic background questions as well as questions that investigate the frequency of using certain communication channels within a romantic relationship were adapted from the study by Yin (2009, p. 77 ff). Next, the self-disclosure scale was adapted from the Fear of Intimacy Scale, originally designed by Descutner & Thelen (1991) and used for research purpose by Lee (2011, p. 107). For the last part, I designed a cross referential set of questions that rank communication channels according to the usage preference for a given situation adapted from the self-disclosure scale.

Before participants for the full version of the survey were recruited, a pilot study was conducted and sent out to ten people from my private network. The 10 people were collected because I could trust them to give me frank and honest feedback on the survey, which is useful for the purpose of the survey. Based on the feedback of the pilot participants, the questionnaire had been restructured and some questions were reformulated. There were three major changes made to the pilot in producing the final version of the questionnaire. First, dependency relations between questions were implemented, so that if respondents indicated they had been in an LDRR they answered some questions that were relevant to them and irrelevant to those who have not been in an LDRR and if respondents indicated they had not been in an LDRR they answered some questions that were relevant to them and not to those respondents who had been in an LDRR. Those questions give information on the places of residence of the partner and the length of the long-distance relationship for example. Second, the questionnaire was restructured, and questions only targeted to the two groups (people with experience in long-distance

relationships and people without experience in long-distance relationships) were implemented and lead to a better understanding and avoiding misinterpretations by the respondents. The third major change was concerning the last part of the questionnaire, which was the last question of the pilot questionnaire. In the pilot questionnaire, it was only possible to select multiple communication channels that would be used for certain situations. In the last version, every situation was turned to a single question with the possibility of ranking communication channels relative to situation type. This change rendered a more detailed insight into the patterns of communication channel use in romantic relationships as well as a deeper understanding as for the tendency of using different channels for different situations. After all, this matter is at the core of answering this project's research questions. The draft of the pilot questionnaire is presented in appendix B.

When the final version of the questionnaire was finalized, an online survey was conducted on www.ubuzoo.de (see appendix C for the offline pdf version). The Participants were recruited from different online platforms: www.facebook.com, www.linkedin.com and via email within my private network. With network, I refer to people I know and people I am in contact with. It was a two-step sampling process: convenience sampling, followed by snow-ball sampling (Treadwell, 2017). That is, all addressees were encouraged to distribute and share the survey within their network as well.

The recruiting message was personalized to the addressees via email. As the email message were directed to one addressee and not to many at the same time, I personalized it in a way that I referred to personal details within our communication that we usually share when talking to each other. The message that was posted publicly on facebook.com and linkedin.com is enclosed in appendix A. In order to participate in the survey, people had to be over 18 years old and currently or previously been involved in a romantic relationship. The target group was not limited to people with experience in LDRR to collect more data and make additional calculation such as comparisons possible.

Participation was anonymous and voluntarily without remuneration. People had the possibility to withdraw anytime and / or start again from scratch.

3.2.   Participants

A total of 101 (n = 101) complete responses were collected for this study. Of the participants, there were 66 (65.3 %) females and 34 (33.7 %) males, while 1 respondent didn't give information on gender. The average age of the respondents was 30.25 (SD = 6.58), with a range from 18 to 55 years old.

Of the respondents, 48 (47.5 %) were in a committed relationship and living together, 21 (20.8 %) were married, 18 (17.8%) are seriously dating, 10 (9.9 %) were dating causally and 4 (4.0%) of the respondents were single, not dating.

79 (78.2 %) of the total respondents indicated that they currently are or have been involved in a LDRR, whereas 22 (21.8 %) have never been involved in a LDRR. Of those 79 who have experience in LDRRs, 10 (12.66 %) were involved in a LDRR from 0 – 6 months, 11 (13.9 %) from 7 – 12 months, 28 (35.4 %) from 1 – 3 years, 12 (15.2 %) from 3 – 5 years and 18 (22.8 %) for 5 years or more.

3.3.   Measures

This section provides an overview of the different parts of the questionnaire and its measures. Personal information, relationship details, self-disclosure scale, preference of communication channels as well as a scale for ranking the preferred communication channel for a given situation are measures for the final analysis of the questionnaire that will be described in detail. As already mentioned in the Methodology sub-section 3.1., the questionnaire as a pdf version is enclosed in appendix C.

3.3.1.   Part 1: Personal information

In Part 1, the demographic information surveyed included age, gender, relationship status and place of residence.

Moreover, respondents were asked what communication channels they use in general by simply answering "yes" or "no" with respect to each communication channel specified. The selected mediated channels were: Telephone, web cam call (such as Skype or Facetime), instant messenger, such as WhatsApp, Facebook, Snapchat, Instagram, email. For the analysis, Facebook, Snapchat and Instagram was combined into Social Media because there were recurring patterns on how people responded to these channels in terms of user frequency. The percentage of

respondents who use each channel was calculated to examine the prevalence of those channels as it will be shown in the analysis in section 5.

3.3.2. Part 2: Your Relationship

As was remarked on earlier in the Methodology section, to ensure clarity on what relationship people should consider when filling out the questionnaire, the following introducing text was put as an introduction to the set of questions:

This study is mainly focusing on long-distance romantic relationships. A long-distance relationship is one in which you cannot see your partner most days. Think about the relationship you have had. If you were or are involved in a long-distance relationship, please answer the questions always considering that specific long-distance relationship. If not, please consider the latest romantic relationship you were involved in.

Subsequently, question one (Q1) of the second part (Pt. 2) indicates if people were or have ever been in a romantic long-distance relationship was asked. People who said *yes* to this question got two subsequent questions that were not applicable and therefore not visible for people who said *no.* Those questions were information on the length of this LDRR in intervals of 0 – 6 months, 7 – 12 months, 1 – 3 years, 4 – 5 years and five years or longer. Intervals made it easier in the data analysis to classify the lengths of relationship into a group and thus give more insightful analysis. The second dependency question included more exact information on the length of time which the partners lived apart.

To the participants who said *no* to Q1, the information on the length of current or latest relationship was asked instead. Next, the partner's place of residence is asked to all participants to identify the distance separating them.

In order to have more in depth knowledge of the grade of long-distance relationship, a set of nominal questions was asked. These helped to filter out, for example, couples that only see each other on the weekends who would not consider themselves to be long-distance. Respondents were asked to agree or disagree on the following questions:

1) My partner lives / has lived far enough away from me that it is or was very difficult or impossible to see him/her physically every day.

2) I consider my (former) relationship to be a long-distance / commuter relationship.

3) My partner and I live or have lived apart from each other at least two nights each week.

4) We are / were employed in different cities and each maintain a consistent residence in the city in which we are employed.

5) I live or have lived 40 km apart from each other.

3.3.3. Self-Disclosure Scale

Self-disclosure was measured by Descutner & Thelen (1991) Fear-of-Intimacy Scale (FIS – see section 3: Procedures). The original Fear-of-Intimacy scale consists of 36 questions. For the present study, the concept of self-disclosure was narrowed down to information that is most private and more intimate, as it can be assessed by using the first 16 questions of the Fear-of-Intimacy scale (Descutner & Thelen, 1991) only. However, the 16th question which was "I would feel comfortable keeping very personal information for myself", was replaced by the question "Talking with my partner about spontaneous ideas and things that pop into my head". This was because the 16th question was about the same as question no. 9: "I would feel comfortable keeping very personal information to myself". Adding the last question about sharing spontaneous ideas, was to show a contrast to the other questions and investigate a possible difference in communication channel use for the question being as intimate as the others. The complete version of the original FIS is attached in appendix D.

3.3.4. Communication Channels

The fourth part of the questionnaire gives information on how often different communication channels specified above (see section 4.1 below) are used within the romantic relationship. This question was visible for every respondent with the following note: *Again, if you have had one or more long-distance romantic relationships, think about the most recent one of these. If you have not had a long-distance relationship, consider your most recent romantic relationship.*

Responses to this question allow me to investigate a general pattern of the frequency on how often different communication channels are used (see sub-

section 5.2.). It was measured by asking how often participants communicate with their partner by each of seven different channels: face-to-face, telephone, email, web cam video call, instant messenger, social media and handwritten letters and notes. The responses were rated on a 5-point Likert-scale (1 = never, 2 = a few times per year, 3 = once or twice per month, 4 = once or twice per week, 5 = every day).

3.3.5. Cross-Section – Self-Disclosure and Communication Channels

The last section of the questionnaire gives information on the preference of channels for a given self-disclosure scenario. There were 12 different scenarios leaned on the self-disclosure scale that were applied. Those scenarios were collected in terms of how different they are from each other so that exploring a difference in communication channel use can be made possible. Two of the scenarios were *sharing secrets with my partner I would not tell other people* or *expressing my needs*. Below each of the given 12 scenarios seven communication channels were listed, those were: face-to-face, telephone, email, web cam call, instant messenger, social media and handwritten letters. Respondents were asked to rank, by order of preference, the different communication channels that they would use considering the given scenario on a 5-point scale. The scales were 1 = would not use it, 2 = would hardly use it, 3 = would use it, 4 = would rather use it, 5 = favorite channel for sample situation.

3.4. Method of Analysis

All data analysis was computed using SPSS 24.0 that was provided as a free version by the University of Gothenburg. SPSS is a statistic software by the company IBM that enables statistical analysis such as ad-hoc analysis, hypothesis testing and predictive analytics. Within social science research, it is used to analyze trends, validate assumptions, understand the data in the first place and drive accurate conclusions (IBM, 2018).

I examined the data for accuracy of data entry, missing values, and outliers first. The data in the SPSS file were verified against the original data in Excel, exported from the online platform www.umbuzoo.de to ensure that the data was transferred correctly. In total, 175 files were exported from which 64 did not finish the survey. From the 111 complete answers, 10 were deleted because of failure to provide all

necessary answers for the analysis. In order to compute all necessary measures, the variables had to be edited and transformed into metric and numeric data since variables were automatically exported into nominal data. For example, the frequency of communication channel use was exported as nominal data which in fact is metric data. This had to be changed in order to compute all necessary analysis.

4. Results

After closing the online questionnaire, some preliminary analysis was conducted. First, descriptive statistics, as it is described in Treadwell (2017, p. 96), "that describe and summarize the data from a research sample", were first obtained to get a general sense of the data distribution. That includes means and standard deviations (SD), frequencies and percentages.

For the frequency of communication channels used, an independent sample t-test has been computed to see differences in patterns of communication channel used for couples in long-distance romantic relationships (LDRRs) and geographically close romantic relationships (GCRRs). Next, the self-disclosure score was calculated to indicate differences of self-disclosure patterns for both kinds of relationships. Last, Friedman-test was computed to discover patterns and prevalence for communication channel use in situations of self-disclosure.

4.1.   Communication Channels

The percentage of people who generally used each of the seven stated communication channels was as follows: 100 % (telephone), 73.3 % (web cam call), 97.0 % (instant messenger), 75.2 % (Facebook), 33.7 % (Instagram), 9.9 % (Snapchat), 93.1 % (Email). This indicated that a very high percentage of participants were able to communicate with their partners almost via all communication channels. Due to the fairly little use of Instagram and Snapchat, it was combined and grouped referring to Social Media. Hence, the difference between image-centric and word-centric use of social media was not considered in this study.

The average communication frequency within the relationships with their partners was about "once or twice per week" (coded 4 on a scale from 1 – 5) for instant messenger (M = 4.46, SD = 1.09) and telephone (M = 4.26, SD = 0.91), "once or twice per month" (coded 3) for Face to Face (M = 3.40, SD = 1.11), web cam call (M = 2.78, SD = 1.48), Social Media (M = 2.61, SD = 1.52) and Email (M = 2.52, SD = 1.09). The communication channel that was used only "a few times per year" (coded 2) was handwritten letters or notes (M = 1.95, SD = 0.67). These figures include both couples in LDRRs as well as couples in GCRRs. These results suggest that IM as semi-synchronous channel is the most frequently used media of communication within any romantic relationship, followed by telephone.

However, as it is shown in table 1, the t-test for independent sample, comparing the means of the group LDRR with the means of the group GCRR shows significant differences for web cam call and FtF. With a confidence interval of 95 %, web cam call shows significance at the level of p= 0.002 and a mean difference of 1.5. Hence, the variances are significantly different with a mean of 3.1 of the LDRR group and 1.6 of the GCRR group. A mean difference with FtF as communication media has been computed of 1.81818 and significance at the level of p = 0.031 with the same confidence interval of 95 %. FtF scored a mean of 4.8 within the group of GCRRs and only 3.0 within the group of LDRRs. All other mean scores are not significantly different. Simply said, couples in LDRRs use web cam call more frequently than couples in GCRRs and, in turn, couples in GCRRs use face-to-face contact as communication medium more often than couples in LDRRs. These are perhaps unsurprising results given the nature of physical distance in LDRRs and the need for people to use web cam call in order to see each other whereas in GCRRs, people have the possibility of physical proximity.

Table 1: Independent Sample T-Test

Channel		F	Sig	T	Df	Sig (2-tailed)	Mean difference
FtF	H_0[2]	4.795	0.031	-9.289	99	0.000	-1.81818
	H_1[3]			-13.886	79.721	0.000	-1.81818
Telephone	H_0	0.635	0.427	1.779	99	0.078	0.38723
	H_1			1.593	29.391	0.122	0.38723
Email	H_0	2.226	0.139	1.227	99	0.223	0.32221
	H_1			1.317	37.401	0.196	0.32221
Web cam	H_0	9.874	0.002	4.695	99	0.000	1.52301
	H_1			5.685	46.918	0.000	1.52301
IM	H_0	0.258	0.613	0.224	99	0.823	0.05926
	H_1			0.218	32.345	0.829	0.05926
Social Media	H_0	0.090	0.765	-1.189	99	0.237	-0.43556
	H_1			-1.135	31.655	0.265	-0.43556
Handwritten letter	H_0	0.233	0.630	0.327	99	0.745	0.05293
	H_1			0.323	33.048	0.749	0.05293

Note: confidence interval was 95 %

4.2. Hypothesis 1

Hypothesis 1 predicted that the most frequently used channel of communication within a LDRR is not a synchronous medium. It is supposed that couples tend to communicate with CMC and thus have a delay in responsiveness.

The independent sample t-test shows that there are differences in the frequency of communication channel use only with FtF and web cam call. Couples in GCRRs tend to communication most with their partner FtF, which is a synchronous channel, followed by IM which is a semi-synchronous channel. Couples in LDRRs favorize IM with a mean of 4.5 (SD = 1.08) and telephone with a mean of 4.34 (SD = 0.86). As IM is regarded as semi-synchronous channel and telephone as synchronous channel, the hypothesis 1 was supported. Still, as IM is not regarded as

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[2] H_0 (null hypothesis) = there are no interactions of significance between the variables under test
[3] H_1 (alternative hypothesis) = there is a significant interaction between the variables under test

asynchronous but semi-synchronous channel, the wish for immediate feedback is evident.

4.3.   Self-Disclosure and Kind of Relationship

A Pearson Chi-Square test has been computed to measure, if self-disclosure score correlates with the variable "experience in LDRR", which is a nominal scale ("yes" or "no").

Table 2 shows that there is no statistically significant correlation between the self-disclosure score and the fact that people had been in a LDRR. Hence, there is no proof that self-disclosure is dependent of the kind of relationship.

Table 2: Chi-Square Test of Self-Disclosure Score

	Value	**Df**	**Asymp. Sig (2-tailed)**
Pearson Chi-Square	22.452[a]	27	0.714
Likelihood-Quotient	25.608	27	0.540
Linear-by-Linear Association	0.016	1	0.900
N of valid cases	101		
a. 91.1% have expected count less than 5. The minimum expected count is 0.22. Confidence interval 95%			

In other words, people in a LDRR do not self-disclose more than in a GCRR but also not less. Self-disclosure seems to be personal and does not necessarily depend on the kind of relationship.

4.4.   Self-Disclosure and Communication Channels

The relationship between the topic of self-disclosure (henceforth called "situation") and communication channel had been computed with the Friedman-test for a dependent sample. It is a non-parametric test, ranking variables that are ordinally scaled within one dependent group. Since the goal of this study is not to measure differences between LDRRs and GCRRs but to discover a pattern of communication channel use within LDRRs, the conditions for a one-way ANOVA were not satisfied. For computing the Friedman-test, I split the data into two different data sets and only looked at respondents who indicated that they are or have been in a LDRR. A reason for this partly is also that the group sizes are too

different. As already indicated, I received 79 responses from people in a LDRR and 22 from people who only were in GCRRs. The labelled situations were drawn from the self-disclosure scale and are the results from the last question of the questionnaire (see appendix D) where people should rank on a scale from one to five (1 = would not use it, 5 = favorite channel for sample situation) what communication channels they would use when communicating with their partner about the given situation. An example of a situation is *discussing significant problems* or *expressing what I dislike about myself*.

Hence, I computed a Friedman-test for each channel according to each situation as indicated in table 3. In the questionnaire there was the possibility to skip the question in case they would not talk about it at all. This is the reason why n varies slightly for each channel and situation.

Table 3: Friedman-Test

Communication channel / Situation	Ranks						
	FtF	Phone	Web-cam	IM	Email	Social media	Letters /notes
things in the past I felt ashamed of	5.86	5.44	6.33	5.54	6.64	6.49	8.12
situations that have hurt me	6.12	6.30	6.23	5.81	6.55	6.35	7.35
Discussing significant problems	6.49	6.23	7.00	4.73	5.28	6.17	4.74
Talking about sad and happy experiences	6.85	7.49	7.99	7.74	6.74	7.15	7.01
Expressing what I dislike about myself	6.94	6.21	6.07	6.39	6.05	6.14	5.65
Sharing very personal information	5.92	6.21	6.23	5.38	6.28	6.27	6.35
Sharing secrets, I would not tell others	6.85	5.41	5.15	4.96	5.85	6.05	5.65
Expressing my needs	6.75	7.10	6.33	7.33	6.62	6.27	5.72
Talk about shortcomings and handicaps	6.85	6.53	5.83	6.64	6.07	6.23	5.65
Sharing spontaneous ideas and things that pop into my head	6.55	8.76	7.87	10.31	7.82	7.58	5.15
Expressing my true feelings for my partner	6.49	6.58	7.03	8.17	7.71	7.19	9.75
Sharing my deepest thoughts and feelings	6.75	5.75	5.94	5.18	6.57	6.10	6.85

The Friedmann-test works in a way that it does not use the actual measurements for calculation but replaces them by using ranks. Those computed ranks are the

basis for all calculations done within the Friedman-test. Hence, this test is based on values "higher than" or "lower than". The absolute interval is not considered. Results from the Friedman-test show that there is a significant difference in the preference of each of the seven communication channels for a given situation as described in the statistics table 4.

Table 4: Statistics for Friedman-Test

Channel	N	Chi square	Df	Asymp. Sig.
Face-to-Face	73	49.650	11	0.000
Telephone	71	91.458	11	0.000
Web cam call	67	69.094	11	0.000
IM	68	225.316	11	0.000
Email	65	52.546	11	0.000
Social media	66	77.909	11	0.000
Letters, notes	65	175.103	11	0.000

This test gives information about whether there are differences but not what kind of differences. What can be drawn from the ranks in table 3 though, is that for each row and communication channel, the higher the value, the higher the mean for the respective situation. That is, the highest rank for row 1 (FtF) is 6,85 for three situations (*Talking about sad and happy experiences, secrets I would not tell others and talking about shortcomings and handicaps*). As the range of the ranks is from 5.85 to 6.58 indicates that the mean values are all fairly equal, it can be concluded that the preferences for using FtF is similar among the participants. For raw 2 (telephone), the lowest rank (5.44) is for things in the past I feel ashamed of, the highest rank is 8.76 for situation sharing spontaneous ideas and things that pop into my head. That indicates that if telephone is used, it is rather used for the latter situation. The third row (web cam call), ranks *talking about sad and happy experiences* highest with 7.99 and lowest for *secrets I would not tell others* with 5.15. In the fourth row (IM) the ranks vary more, giving sharing spontaneous ideas and things that pop into my head the highest rank of 10.31 and the lowest to discussing significant problems. When it comes to the fifth row (emails) the lowest rank is 5.28 for *discussing significant problems*, and 7.82 for *sharing spontaneous*

ideas and things that pop into my head. Social media ranks lowest (6.10) for *sharing my deepest thoughts and feelings* and highest (7.58) for *sharing spontaneous ideas and things that pop into my head.* The last row (letters and notes) ranks lowest (4.74) *discussing significant problems,* and highest (9.75) *expressing my true feelings for my partner.* Again, the ranks, even though they seem equal within the rows, it does not indicate if those channels that rank high for a given situation, really is the preferred channel. It only gives information about the mean scores of the specific channel without comparing it with the others. In table 4 however, with a significance at the level of p = 0.000 for each channel indicates, that there are significant differences within the ranks. Hence, it is important to compare mean scores and descriptive statistics as well. This will be done while answering the research question in the following sub-section.

4.5.   Research Question 1

The first research question seeks to examine what communication channel is preferred when self-disclosing within a LDRR. By computing the Friedmann-test, a clear tendency shows that FtF is the preferred channel for talking about all situations, regardless of which kind. However, as the t-test proved, that among people within a LDRRs, FtF is a channel, they only use "once or twice per month", it is necessary to reveal the mediated channel that is mostly used for self-disclosure within a LDRR. As we also know from the previous testing, IM is the most used channel for communicating within a romantic relationship. Friedman-test indicates that IM is mostly used for sharing spontaneous ideas, with a mean of 4,16. This is the highest mean IM scored on the self-disclosure scale. As already indicated above, IM and telephone are both channels that are mostly used within a LDRR. IM even reached a higher mean than Telephone. The difference, however, is not significant with p = 0.387. Hence, the difference in the testing though, comparing telephone and IM for the situation *talking about spontaneous ideas* is significant with p = 0.002 as shown in table 5.

Table 5: Test for Paired Sample, IM and Telephone

	Mean difference	SD	mean error	T	Df	Sig (2-tailed)
IM – spontaneous ideas	-0.421	1.169	0.134	-3.139	75	0.002
Telephone – spontaneous ideas	-0.421	1.169	0.134	-3.139	75	0.002

Note: Confidence interval: 95 % for all testing

Hence, it is proved that IM is not a preferred communication channel for self-disclosure, but telephone is the mediated channel most used for self-disclosing within a LDRR at least on the level of sharing spontaneous ideas.

4.6.   Research Question 2

The second research question seeks to go further into detail, examining the preferred channel for certain situations. From what we know so far, telephone is most suitable for spontaneous ideas, but the testing by now does not give us a clear result on latter question yet. The second highest rank that appears from the testing is communication channel letters and notes (9.75) for situation *expressing my true feelings.* This channel reached a mean for given situation of 3.55 (SD = 1.4). Again, however, applying the test for paired sample, it becomes obvious that handwritten letters and notes is not the first but second most used channel for expressing feelings. Telephone with a mean of 3.93 (SD = 0.96), IM with a mean of 3.24 (SD = 1.284) and web cam call with a mean of 3.13 (SD = 1.284) are the three further communication channels that reached a fairly equal mean. The median of the Likert-scale was 4 for both handwritten letters and telephone and 3 for IM and web cam call. Thus, it is necessary to test the four pairs as it is shown in table 6.

Table 6: Test for Paired Sample for Situation "Expressing my True Feelings for my Partner"

		Mean differ-ence	SD	Mean error	T	Df	Sig (2-tailed)
1st pair Expressing my true feelings for my partner	Telephone Handwritten Letters, Notes	0,387	1,515	0,175	2,211	74	0,030
2nd pair Expressing my true feelings for my partner	Webcam Call IM	-0,105	1,438	0,165	-0,638	75	0,525

The comparison shows that the first pair is significant with p=0.030. This makes telephone again the preferred channel for expressing feelings, followed by handwritten letters.

The next situation that is going to be checked is things I feel ashamed of. The Friedman-test scored the channels quite on a middle level except for handwritten letters. Again, checking the means, however, the following channels are to be tested more closely: Telephone with a mean of 3.6 (SD = 1.09, median on Likert-scale = 4) and web cam call with a mean of 2.94 (SD = 1.25, median on Likert-scale = 3). All other channels scored 2 or less on the Likert-scale and are thus not worth for in depth checking.

Table 7: Test for Paired Sample for Situation "Talking About Things in the Past I Felt Ashamed of"

		Mean difference	SD	Mean error	T	Df	Sig (2-tailed)
1st pair Talk about things in the past I felt ashamed of	Telephone Web cam Call	0,662	1,643	0,187	3,537	76	0,001

Table 7 provides the proof that again, telephone is the preferred channel for the tested situation with significance at the level of p = 0.001.

For all remaining situations, the ranks from the Friedman-test are no longer representative. This is because email, social media and handwritten letters do not reach a median on the Likert-scale higher than two. This indicates that those three communication channels are relevant for none of the remaining situations, representing self-disclosure on a high level.

4.7.   Research Question 3 and Hypothesis 2

The third research question seeks to explore a pattern of preference for communication channel use in self-disclosing situations. Figure 2 provides an overview of the means for each channel as per situation and puts it in a net diagram. The first blue line on the very outside is the prevalence of FtF for each given situation. The situations are marked around the net. As already discussed in section 4.6., telephone is the most relevant channel for communication intimate matters in LDRRs. The net diagram provides the proof: For all situations telephone scores the highest mean after FtF. IM only peaks at *talking about spontaneous ideas* but still stays behind telephone as favorite channel. Yet, there is no other situation in which semi-synchronous or asynchronous channels are preferred. An interesting observation though, is that web cam call shows a fairly equal mean around 3 for each situation without major exception. Even though web cam call has a higher cue multiplicity than telephone, it does not seem to be a preferred channel. Hence, there

is no situation in which people would prefer web cam call over telephone. Social media was found to be a channel that is not used at all for self-disclosure. The only small peak is, like IM, for *talking about spontaneous ideas* but still with a very low mean of 1.67. The other two asynchronous channels, email and handwritten letters are not preferred channels but are in some situations more used than in others. Explicitly, handwritten letters peaks for situation *expressing my true feelings for my partner*, as already discussed in section 4.6 and has another minor peak for talk about things in the past I feel ashamed of with a mean of 2.77, staying behind telephone and web cam call. An interesting finding is that, unlike the other communication channels examined, handwritten letters shows a different pattern. All channels, except for IM, are illustrated in figure 2, as a fairly consistent ring around the net. Handwritten letters in turn, peaked for one particular situation and dropped remarkable for situation *expressing what I dislike about myself*. For the latter situation it reached the same low mean as social media of 1.15. These findings help to test hypothesis 2, which assumes that both synchronous and asynchronous communication channels are used, depending on the situation of self-disclosure. Summing up the results, they show a strong prevalence for synchronous communication channels for each of the given situations. Against this background, hypothesis 2 cannot be supported.
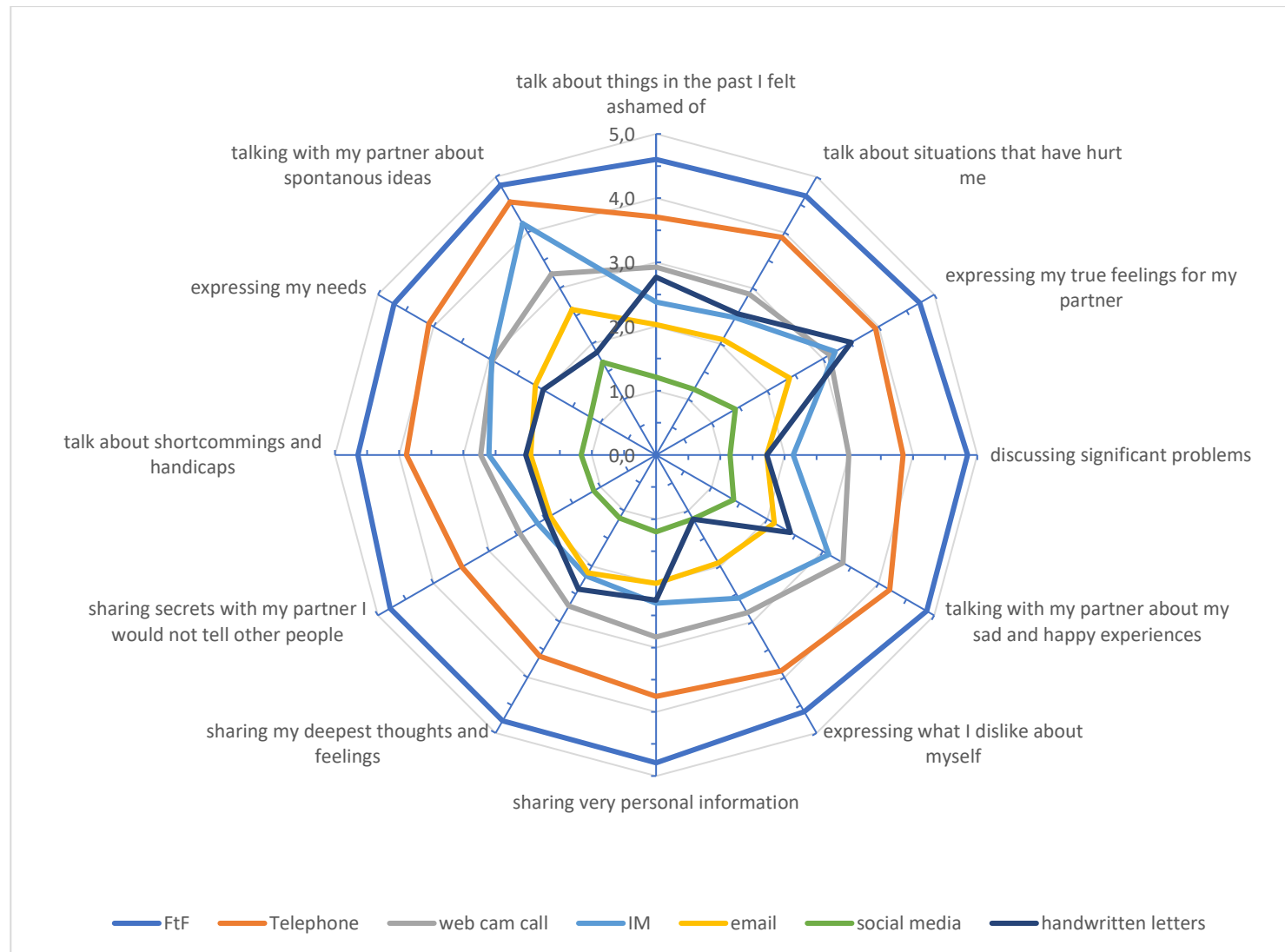
Figure 2: *Communication channel use in situations of self-disclosure*.

5. Discussion

This section presents a discussion on the findings of the study. I will assess all results from the previous tests first and will also discuss the research questions and interpret the outcomes of the testing based on own assumptions and on the literature provided. Then, I will state implications for further research practice and limitations of the study.

5.1.   Communication Channels

The aim for this study was to reveal patterns of communication channel use in LDRRs in situations of self-disclosure. In terms of frequency, the results showed that IM (semi-synchronous) and telephone (synchronous communication channel) are the ones mostly used in LDRRs, followed by web cam call and FtF. Asynchronous communication channels (email, social media and handwritten letters) are not frequently used for everyday communication. It is obvious though, that, when comparing GCRR and LDRR, the greatest difference is in FtF and web cam call use. Couples in GCRR hardly use web cam call and, in turn, couples in LDRRs can only have FtF contact once or twice per month. This comprehensible phenomenon, however, does not indicate any information on the content of the messages shared via those communication channels.

These findings though, challenge previous studies in the field of communication research. First, Johnson et al. (2008) examined the use of email for relationship maintenance among college students. The researchers posited that "email is more commonly used than other forms of CMC" (Johnson, Haigh et al., 2008, p. 383). Its asynchronicity can be advantageous, according to Johnson et al., allowing communication at someone's leisure. Results of the present study has shown that these findings cannot be supported. This might be because digitalization grew very fast in the past decade and email rather replaced handwritten letters for couples in a LDRR but as long-distance phone calls have become cheaper nowadays, email might have become outdated for communication within a romantic relationship. Second, Knox, Zusman et al. (2002) found that 53 % of the participants in their study on long-distance relationships among college students, reported using email to communicate with their partners more than once a week. This study revealed though, that participants would use email for communicating with their partners only

once or twice per month. This can also be an indication for the change in technology and trends in the digital world in the past 16 years.

5.2.   Self-Disclosure Scale

The Fear-of-Intimacy Scale (FIS), created by Descutner & Thelen (1991) has provided the basis for investigating. Questions were adapted from the FIS in order to measure the self-disclosure scale of the participants and find out whether there is a difference between people in LDRRs and GCRRs. Testing showed that there is no difference between those groups and that the degree to which people self-disclose within their relationship does not depend on the kind of relationship they have. Merkle & Richardson (2000) posits that "the global presence of the Internet diminishes the need for spatial proximity" (p. 188) and for couples who have established a romantic relationship online, "self-disclosure becomes significant as the only means for two users to know one another" (p. 188). Based on these claims, it could have been assumed that people who are in a LDRR score higher on the self-disclosure scale. Instead, as already stated, the extent to which people self-disclose does not depend on the relationship type. This finding can be explained by SIPT (Walther, 2008), indicating that geographical distance does not have an impact on trust. Establishing trust via mediated channels, according to Walther (2008) might just take longer but missing cue multiplicity does not account for less trust among the partners. When interpreting this result, Altman & Taylors (1973) social penetration theory should also be considered. As already indicated in the literature review section 2.2, mutual self-disclosure and trust develops over time and the more trust is being developed among the partners the greater becomes breadth and depth of self-disclosure. Yet, it can be assumed that findings in this study represent an "ideal world" in which trust has already been developed or people wish they would trust each other that much, so that they actually could talk about all given situations. As time was not a factor in this questionnaire, a clear differentiation between the two groups based on previous research cannot be made. This will be discussed further under Limitations (section 6).

5.3.   Self-disclosure and Communication channels

The testing of the dependency between self-disclosure and communication channels, revealed a clear pattern of communication channel use in LDRRs. For all the 12 situations of self-disclosure, FtF was the preferred channel to communicate.

FtF as a not-mediated communication channel is a multiple cue channel that possesses several characteristics from the synchronicity theory by Dennis & Valacich (1999). First of all, feedback is immediately possible and symbol variety is great, because both verbal and non-verbal cues are visible. Communicating FtF is also possible parallel to any other activities and can be combined with all activities that require physical presence. However, it is not possible to have a parallel communication with somebody else via another medium at the same time. In terms of the fourth characteristic, rehearseability, that is a characteristic that is only partly given and cannot be applied within a spontaneous discussion but previously before holding, e. g. a speech or giving an interview. Reprocessability when communicating FtF is also possible as already indicated in the previous example. The frequency of using FtF in a LDRR is limited though, so the interesting finding of the test was to reveal a pattern in the use of mediated communication channels for self-disclosing in a LDRR. The Friedman-test provided a first indication of the result. Testing showed that when excluding FtF as a possible channel for self-disclosing, the strongest mediated channel was telephone for all 12 possible situations. Testing and comparing the means (as in Figure 2) showed, that telephone had a strong second biggest channel for the following situations that are examined below in detail:

Couples in LDRRs tend to write letters or notes to *express their true feelings for each other* but they would also rather use the telephone in order to talk about feelings. Telephone is a mediated but not computer-mediated communication channel. It is synchronous but does not convey non-verbal cues. It is an interesting finding, that the frequency of using telephone for self-disclosure is higher than the frequency of using web cam call for self-disclosure. If we compare the characteristics for both channels, it can be stated that, as both are a synchronous channel, the immediacy of feedback is equal, however, telephone has less symbol variety because of the missing non-verbal cues. Another difference those two channels possess is parallelism. Talking on the phone leaves more room to do different things or have several other conversations (such as text-based communication) or activities at the same time. Additionally, calling somebody on the phone can be done more spontaneously than talking via web cam call. Even though, most mobile phones have the application and the affordances to do a video call on the phone but to use it, one must actively get online and activate the

36

possibility to receive or to make a video call. The last two characteristics, rehearseability and reprocessability, are similar to the FtF channel.

Semi-synchronous channel, IM, is only used frequently for *sharing spontaneous ideas.* But as well, after people would use the telephone. The interesting finding here is, that IM is the channel most frequently used within romantic relationships, as stated above. But as this study shows, not for self-disclosure of intimate matters. The study rather indicates, that more serious topics are preferably discussed via telephone, hence, a synchronous channel. The remaining asynchronous communication channels like email and social media are used in general terms but hardly for self-disclosing intimate topics.

Therefore, these findings lead to the assumption that the synchronicity theory by Dennis & Valacich (1999) is not relevant for communication within romantic relationships.

And again, the results from the questionnaire challenge the research done by Johnson, Haigh et al. (2008) indicating that messages which fall into the typology category assurance and openness would be communicated most via email in LDRRs. Adapting these categories to this study, *expressing my true feelings* might be categorized under 'assurance' and *sharing spontaneous ideas* might fall under the category 'openness'. However, results show that there is no prevalence for using email in these situations.

Furthermore, the indication by Jiang & Hancock (2008) posited that "people typically have strong preferences for cue multiplicity, high synchronicity and less mobility for interpersonally complex interactions" (p. 561) can be supported in terms of synchronicity. These findings can also be explained by the media richness theory (Daft & Lengel, 1986). In general terms, through facilitation of immediate feedback, a variety in language, cue multiplicity and hence, the personal focus, telephone and web cam call exceed text-based communication. But web cam call does not exceed telephone. Paradoxically, this study implies that cue multiplicity is not a top priority for choosing the communication channel for self-disclosure. Otherwise, web cam call would have been chosen over telephone as the cue multiplicity is higher, people can detect non-verbal signals and thus leave smaller room for interpreting for example silence. The findings of this study, however, prove the contrary. A possible explanation for this can be found in the results of a study by Kim et al. (2007)

suggesting that strong social ties are rather reinforced using mobile phones over other communication channels. Especially when it comes to text-based communication, CMC is rather used for relationship with weak ties. Jiang & Hancock's study further provided "strong evidence that behavioral adaptation in self-disclosure increases as the communication medium became more text-based, asynchronous, and mobile" (2008, p. 573). The shift to text-based communication for self-disclosure within romantic relationships cannot be seconded facing the results of the present study. In turn, people tend to exchange spontaneous messages only via text-based communication channels.

Another explanation for these clear tendencies that intimate topics are preferably talked about FtF, and via telephone can be due to the hypothetical question participants were asked to respond. As already explained, participants were asked to rank the given communication channels on a scale from one to five indicating which channel they would preferably use for the given situation. That is, again, a very hypothetical question. Some respondents, who are not presently in a LDRRs had think back in time and imagine a long-gone situation in order to answer the question. It is possible that participants would use FtF communication if they could for each situation, and therefore ranked FtF very high. However, given the nature of a LDRR, it cannot be used so often, and another communication channel must be chosen over FtF. It is likely that people, in reality, do self-disclose using another channel, but it is not the preferred situation. That might be why the results reflect a preferred state but not the reality.

These findings contribute to communication research in the following way: Telephone, as one of the more traditional communication channels is put in center stage of this research result. Even though digitalization is on the rise and people more and more tend to communicate only via online channels, this research implies that the fact that people tend to reveal private information via telephone should be given more importance to. The fact that people communicate every day using IM but hardly use it for self-disclosure shows a tendency of superficialness in communication content. The result of this study questions the assumption of communication scientists, like for example Daft & Lengel (1986), that cue multiplicity is crucial for selecting a communication channel. Telephone does not possess a high cue multiplicity. Hence, the importance and the messages

conveyed via telephone, especially in relationship and long-distance studies should be researched further. The result of the study further indicates how significant the role of communication channels is within the long-distance relationship context. The availability of channels as well as the intention of what to communicate when has a great impact on developing trust within a relationship. The results give reason to assume that either couples in LDRRs wait until they see each other FtF in order to talk about intimate issues or reveal personal disclosure only once or twice per week when they talk on the phone. This potential pattern has an impact on relational studies and should be taken into account when researching escalating and deescalating (long-distant) romantic relationship. Furthermore, this study can also be of interest for professionals in relationship consultancy. The fact that not every media is suitable or most likely chosen for transporting intimate matters might couples help establishing better communication skill within their relationship and prevent problems and misunderstandings.

6. Limitations

Several limitations of the study need to be acknowledged. In summary, the findings represent an underexplored phenomenon at the heart of communication within distance relationships. They challenge the common assumption that web cam calls, replaces FtF communication in LDRRs as conveying non-verbal cues to a certain extent and the simply "seeing each other" becomes possible. However, there were still various limitations in data measurement, study design, method and response.

First, the design of the study can account for unclear results. Using a questionnaire for measuring self-disclosure and the choice of communication channels in LDRRs only gives insight in a theoretically constructed scenario and for the present time only. A questionnaire leaves room for uncertainty and dishonesty. Even though anonymity is given, people might not have responded in an honest way. This can happen consciously but also unconsciously as they might have remembered things differently or reflected an ideal scenario but not reality. In addition, it is also possible that participants have responded without having read the question thoroughly. And, as it lies in the nature of a questionnaire, it is not possible to ask the researcher to negotiate meaning but participants have to interpret each question on their own. That, of course, can cause misunderstandings. An observation could have been a better choice of method for a study like this one. Then, not only capturing real life situation and patterns would have been possible, but also observing couples within a longer period enables analyzing relationship escalation, reciprocity of self-disclosure and possible changes of patterns within a LDDRs.

Another limitation of the study design was its accessibility. As the questionnaire was distributed online and via snowball distribution, the target group was quite homogenic and does not represent all couples in romantic relationships of both kinds long-distant and geographically close. The online distribution also excludes people without access to the internet, especially older ones. The generation that did not grow up with CMC might have accounted for a slightly different result. That could also function in the opposite direction. More digital natives might have altered the result in a way that new technologies and video-based communication could have exceeded over the traditional telephone.

A third limitation is that the study exclusively measures individuals' perception and does not take couples responses into account. It can be assumed that, once a

communication channel is established within a romantic relationship, people tend to stick to that one because they feel comfortable using that specific channel. Depending on the relationship, this might be FtF for geographically close and maybe even a mediated text-based channel for long-distant couples.

Fourth, the study measured self-disclosure through Descutner & Thelens' FIS. Other scholars, for example, Jing & Hancock, used other indications to measure self-disclosure. Hence, the difference in variables makes it difficult to compare the results.

Fifth, concerning the self-disclosure scale, discussed in section 5.3, the study only measured if people would talk about the given situations but not taking time into account. The questionnaire could only capture hypothetical tendencies of the participants ("If you **would** feel comfortable expressing my true feelings to my partner"). That does not mean, however, that someone actually **does** feel comfortable expressing their true feelings to their partners. And it could also not be captured if that changed over time. That made it difficult to apply, e. g. Altman & Taylors social penetration theory (1973) to explain the results from the self-disclosure scale.

Sixth, there is also a potential risk of designed responses, meaning that participants might have tried to give answers in the direction of that which they assumed this study seeks to find out. As some people of my network who also took part in the study knew what this study was all about, there is a potential risk that at least some answers were driven in this direction.

Seventh, other information might have been important to consider within this study. Questions as of whether age or gender makes a difference or length of relationship or kilometers separating the couple are questions that remain unanswered in the scope of this study but gives suggestions for future research.

7. Implication and Conclusion

Some implications can be drawn from this study. More advanced research should be invested into the differences between telephone and web cam call and user preferences. As with digitalization, researchers and industries may be required to produce advanced forms of new technologies for couples in LDRRs. Investment in technologies with even higher cue multiplicity than web cam call might be worth testing. In addition, these findings call for a re-examination of telephone use in LDRRs beyond self-disclosure or, at least, for a greater scope of self-disclosure than the one that is measured in this study.

This study examined the preferred communication channel usage for self-disclosure in LDRRs. Unlike previous research in this field of study, these findings challenge web cam call as a replacement for FtF communication in long-distance relationships but indicates that the traditional telephone might be exceeding all other new technologies. This is the most significant finding of the study and hence, calls for further examination.

To conclude, text-based communication still and probably even more is the preferred communication channel in terms of frequency. However, as this study has shown, quality communication and intimate, yet very personal topics are shared via a personal and synchronous medium that, when it cannot be face-to-face, seems to be via telephone to overcome geographic distance in romantic relationship and hearing your loved one voice in real time, at least, feels like some sort of proximity is given.

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9. Appendices

Appendix A

Recruiting message posted on Facebook and Linkedin

Hello everyone! Please help me and fill out the questionnaire for my Master thesis. It's about self-disclosure in romantic relationships, it's also fun and won't take longer than 15 minutes. 😊

It's even more fun when you use a tablet or laptop. With a smartphone, it can be tricky.

Here it is:
https://www.umbuzoo.de/d/5a8c2c352852aa1bec4ca976/en/

Feel free to share it as well! 🙂

Thanks a lot!! ❤️

Aline

Appendix B

Pilot Questionnaire

Part 1: Please tell us about yourself

1. Gender: (1) female (2) male (3) other

2. Your age: _____

3. Marital Status:
   (1) single, dating casually (2) single, dating seriously (3) living together, committed relationship (4) married (5) separated (6) divorced (7) widowed

4. Where do you live? Country: _____ Zip code: _____

5. Where does your partner live? Country: _____ Zip code: _____

6. How long have you been romantically involved with your partner?
   _____Years
   _____ Months

7. A long-distance relationship is one in which you cannot see your partner, physically
   face-to-face most days. (Dainton & Aylor, 2001)
   Do you consider your current relationship to be a long-distance relationship?
   (1) yes (2) no

8. How long have you and your partner lived apart (long-distance)? _____Years
   _____Months

9. Please rate how accurate each statement is for you.

1	2	3	4
Strongly disagree	Disagree	Agree	Strongly agree

   ___ 1. My partner lives far enough away from me that it would be very difficult or
   impossible for me to see him/her every day.
   ___ 2. I consider my relationship to be a long distance/commuter relationship.
   3. My partner & I live apart from each other at least 2 nights each week.
   ___ 4. We are employed in different cities, and each maintain a consistent residence in
   the city in which we are employed.
   ___ 5. I live 40 km or more from my partner.

10. Do you have access to the below means?

    a) Telephone

    b) Web cam (skype)

    c) Instant messenger

      d) Facebook

      e) Social media (Instagram, snapchat, other)

      f) Email

Part II

Self-disclosure Scale (Descutner & Thelen, 1991)
Imagine you are in a close, dating relationship. Respond to the following statements as
you would if you were in that close relationship. Rate how characteristic each statement
is of you on a scale of I to 5 as described below.

1	2	3	4	5
Not at all characteristic of me	Slightly characteristic of me	Moderately characteristic of me	Very characteristic of me	Extremely characteristic of me

1. I would feel uncomfortable telling my partner about things in the past that I have felt ashamed of.
2. I would feel uneasy talking with my partner about something that has hurt me deeply.
3. I would feel comfortable expressing my true feelings to my partner.
4. I might be afraid to confide my innermost feelings to my partner.
5. I would be comfortable discussing significant problems with my partner.
6. I would feel comfortable telling my experiences, even sad ones, to my partner.
7. I would find it difficult being open with my partner about my personal thoughts.
8. I would not be afraid to share with my partner what I dislike about myself.
9. I would feel comfortable keeping very personal information to myself.
10. I would feel comfortable telling my partner things that I do not tell other people.
11. I would feel comfortable trusting my partner with my deepest thoughts and feelings.
12. I would be comfortable revealing to my partner what I feel are my shortcomings and handicaps.
13. I would be afraid of sharing my private thoughts with my partner.
14. I would be comfortable telling my partner what my needs are.
15. I would feel comfortable about having open and honest communication with my partner
16. I would feel comfortable keeping very personal information for myself.

Part III
Communication channels:

Please rate how often you use or you have used these methods of communication?

1	2	3	4	5

never	A few times per year	Once or twice per month	Once or twice per week	Every day

a) Physical face-to-face contact

b) Telephone (audio only)

c) Email

d) Webcam video call (such as skype, facetime)

e) Instant messenger (such as WhatsApp, telegram, Facebook messenger)

f) Social media (such as Facebook, Instagram, snapchat)

g) Handwritten letters, cards, notes

Please indicate what communication channel you would use to talk about following situations

Multiple answers are possible.

1	2	3	4	5	6	7	8
Face-to-face	Telephone	Email	Webcam call	Instant messenger	Social media	Handwritten letter	Would not talk about it at all

talk about things in the past, I have felt ashamed of	
talk about situations that have hurt me	
expressing my true feelings for my partner	
discussing significant problems	
talking about sad experiences with my partner	
talking about happy experiences with my partner	
sharing personal thoughts	
expressing what I dislike about myself	
sharing very personal information	
sharing secrets with my partner I would not tell other people	
sharing deepest thoughts and feelings	
talk about my shortcommings and handicaps	
expressing my needs	

Appendix C

Final version of the questionnaire attached as PDF form.

Appendix D

Original Fear of Intimacy Scale

Hello!

This is Aline Wörle. I'm a Master student at the University of Gothenburg studying Communication. Currently I'm conducting a study on self-disclosure and communication channels in romantic relationships. If you are older than 18 years old and are or have been previously in a romantic relationship, I would be very greatful if you took part in this study. Your responses will be anonymous and confidential and will be only used for research purpose. It will take you around 10 to 15 minutes to complete the survey. Thank you very much for participating!
Feel free to contact me: gusworal@student.gu.se

Please tell me about yourself

What is your gender?

☐ *female*

☐ *male*

☐ *other*

What is your age?

☐

What is your relationship status?

☐ single, not dating

☐ single, dating casually

☐ dating seriously

☐ living together, committed relationship

☐ married

☐ separated

☐ divorced

☐ widowed

Where do you live?

Country:

☐

City or region:

☐

Do you use the following means of communication with anyone?

	yes	no
Telefone	☐	☐

Do you use the following means of communication with anyone?

	yes	no
Web cam call (such as skype, facetime)	☐	☐
Instant messenger (such as whatsapp, telegram, facebook messenger)	☐	☐
Facebook	☐	☐
Instagram	☐	☐
Snapchat	☐	☐
Email	☐	☐

Your relationship

This study is mainly focusing on long-distance romantic relationships. A long-distance relationship is one in which you cannot see your partner most days. Think about the relationships you have had. If you were or are involved in a long-distance relationship, please answer the questions always considering that specific long-distance relationship. If you have had several long-distance relationships, please consider the most recent one of these.
If you have not been involved in a long-distance relationship consider your latest romantic relationship.

Are you currently or have you ever been involved in a long-distance romantic relationship?

☐ yes

☐ no

How long have you been romantically involved in that relationship?

☐ 0 - 6 months

☐ 7 - 12 months

☐ 1 - 3 years

☐ 3 - 5 years

☐ 5 years or longer

Consider your current or most recent relationship: How long have you been romantically involved with your partner?

☐ 0 - 6 months

☐ 7 - 12 months

☐ 1 - 3 years

☐ 3 - 5 years

☐ 5 years or longer

In your latest long-distance relationship: Where did or does your partner live?

Country:

City or region:

Did the places of residence of you or your partner change over the course of your relationship?

If so, please give a brief explanation.

In your most recent romantic relationship: Where did or does your partner live?

Country:

City or region:

Within your relationship, that was long-distance, how long have you and your partner lived apart?

Please rate how accurate each statement is for you.

	disagree	agree
My partner lives / has lived far enough away from me that it is or was very difficult or impossible for me to see him / her physically every day.	☐	☐
I consider my (former) relationship to be a long distance/ commuter relationship.	☐	☐
My partner & I live or have lived apart from each other at least 2 nights each week.	☐	☐

Please rate how accurate each statement is for you.

	disagree	agree
We are / were employed in different cities, and each maintain a consistent residence in the city in which we are employed.	☐	☐
I live or have lived 40 km or more from my partner.	☐	☐

Self-disclosure scale

This part is about you and how you would generally open up to your partner.
Imagine you are in a close, dating relationship. Please respond to the following statements, adapted from Carol Descutner and Mark Thelen's research, as you would if you were in that close relationship right now. Rate how characteristic each statement is of you on a scale of 1 to 5.
*the scales are: *
(1) not at all characteristic of me
(2) slightly characteristic of me
(3) moderately characteristic of me
(4) very characteristic of me
(5) extremely characteristic of me

	1	2	3	4	5
I would feel uncomfortable telling my partner about things in the past that I have felt ashamed of.	☐	☐	☐	☐	☐
I would feel uneasy talking with my partner about something that has hurt me deeply.	☐	☐	☐	☐	☐
I would feel comfortable expressing my true feelings to my partner.	☐	☐	☐	☐	☐
I might be afraid to confide in my partner about my innermost feelings.	☐	☐	☐	☐	☐
I would be comfortable discussing significant problems with my partner.	☐	☐	☐	☐	☐
I would feel comfortable telling my experiences, even sad ones, to my partner.	☐	☐	☐	☐	☐

Self-disclosure scale

This part is about you and how you would generally open up to your partner.
Imagine you are in a close, dating relationship. Please respond to the following statements, adapted from Carol Descutner and Mark Thelen's research, as you would if you were in that close relationship right now. Rate how characteristic each statement is of you on a scale of 1 to 5.
*the scales are: *
(1) not at all characteristic of me
(2) slightly characteristic of me
(3) moderately characteristic of me
(4) very characteristic of me
(5) extremely characteristic of me

I would find it difficult being open with my partner about my personal thoughts.	☐	☐	☐	☐	☐
I would not be afraid to share with my partner what I dislike about myself.	☐	☐	☐	☐	☐
I would feel comfortable keeping very personal information to myself.	☐	☐	☐	☐	☐
I would feel comfortable telling my partner things that I do not tell other people.	☐	☐	☐	☐	☐
I would feel comfortable trusting my partner with my deepest thoughts and feelings.	☐	☐	☐	☐	☐

Self-disclosure scale

This part is about you and how you would generally open up to your partner.
Imagine you are in a close, dating relationship. Please respond to the following statements, adapted from Carol Descutner and Mark Thelen's research, as you would if you were in that close relationship right now. Rate how characteristic each statement is of you on a scale of 1 to 5.
*the scales are: *
(1) not at all characteristic of me
(2) slightly characteristic of me
(3) moderately characteristic of me
(4) very characteristic of me
(5) extremely characteristic of me

I would be comfortable revealing to my partner what I feel are my shortcomings and handicaps.	☐	☐	☐	☐	☐
I would be afraid sharing my private thoughts with my partner.	☐	☐	☐	☐	☐
I would be comfortable telling my partner what my needs are.	☐	☐	☐	☐	☐
I would feel comfortable about having open and honest communication with my partner	☐	☐	☐	☐	☐
I would feel comfortable sharing spontaneous ideas with my partner	☐	☐	☐	☐	☐

Communication channels

Within the romantic relationship you were considering over the course of this questionnaire, please rate how often you use or have used the following means of communication with your partner.

Again, if you have had one or more long-distance romantic relationships, think about the most recent one of these.
If you have not had a long-distance relationship, consider your most recent romantic relationship.

	never	a few times per year	once or twice per month	once or twice per week	every day
Physical face-to-face contact	☐	☐	☐	☐	☐
Telephone	☐	☐	☐	☐	☐
Email	☐	☐	☐	☐	☐
Web cam video call (such as skype, facetime)	☐	☐	☐	☐	☐
Instant messenger (such as whatsapp, telegram, facebook messenger)	☐	☐	☐	☐	☐
Social media (Facebook, Instagram, Snapchat)	☐	☐	☐	☐	☐
Handwritten letters, cards, notes	☐	☐	☐	☐	☐

Last section!

The last section is about the kind of communication channel you would use for sharing information with your partner. Again, please consider the romantic relationship that was either long-distance or, if long-distance is not applicable, your most recent romantic relationship.
Consider the following situations and rank the communication channels on a scale from one to five.
1 = would not use it
2 = would hardly use it
3 = would use it
4 = would rather use it
5 = favourite channel for sample situation
Note: _if you would not talk about the sample situation at all, please just skip the question". _

talk about things in the past I felt ashamed of

	1	*2*	*3*	*4*	*5*
face-to-face	☐	☐	☐	☐	☐
telephone	☐	☐	☐	☐	☐
email	☐	☐	☐	☐	☐
web cam call	☐	☐	☐	☐	☐
instant messenger (like whatsapp)	☐	☐	☐	☐	☐
social media	☐	☐	☐	☐	☐
handwritten letters, notes	☐	☐	☐	☐	☐

talk about situations that have hurt me

	1	*2*	*3*	*4*	*5*
face-to-face	☐	☐	☐	☐	☐
telephone	☐	☐	☐	☐	☐
email	☐	☐	☐	☐	☐
web cam call	☐	☐	☐	☐	☐
instant messenger (like whatsapp)	☐	☐	☐	☐	☐
social media	☐	☐	☐	☐	☐
handwritten letters, notes	☐	☐	☐	☐	☐

expressing my true feelings for my partner

	1	2	3	4	5
face-to-face	☐	☐	☐	☐	☐
telephone	☐	☐	☐	☐	☐
email	☐	☐	☐	☐	☐
web cam call	☐	☐	☐	☐	☐
instant messenger (like whatsapp)	☐	☐	☐	☐	☐
social media	☐	☐	☐	☐	☐
handwritten letters, notes	☐	☐	☐	☐	☐

discussing significant problems

	1	2	3	4	5
face-to-face	☐	☐	☐	☐	☐
telephone	☐	☐	☐	☐	☐
email	☐	☐	☐	☐	☐
web cam call	☐	☐	☐	☐	☐
instant messenger (like whatsapp)	☐	☐	☐	☐	☐
social media	☐	☐	☐	☐	☐
handwritten letters, notes	☐	☐	☐	☐	☐

talking with my partner about my sad and happy experiences

	1	2	3	4	5
face-to-face	☐	☐	☐	☐	☐
telephone	☐	☐	☐	☐	☐
email	☐	☐	☐	☐	☐
web cam call	☐	☐	☐	☐	☐

talking with my partner about my sad and happy experiences

	1	2	3	4	5
instant messenger (like whatsapp)	☐	☐	☐	☐	☐
social media	☐	☐	☐	☐	☐
handwritten letters, notes	☐	☐	☐	☐	☐

Keep in mind:
1 = would not use it
2 = would hardly use it
3 = would use it
4 = would rather use it
5 = favourite channel for sample situation
Note: _if you would not talk about the sample situation at all, please just skip the question". _

expressing what I dislike about myself

	1	*2*	*3*	*4*	*5*
face-to-face	☐	☐	☐	☐	☐
telephone	☐	☐	☐	☐	☐
email	☐	☐	☐	☐	☐
web cam call	☐	☐	☐	☐	☐
instant messenger (like whatsapp)	☐	☐	☐	☐	☐
social media	☐	☐	☐	☐	☐
handwritten letters, notes	☐	☐	☐	☐	☐

sharing very personal information

	1	*2*	*3*	*4*	*5*
face-to-face	☐	☐	☐	☐	☐
telephone	☐	☐	☐	☐	☐
email	☐	☐	☐	☐	☐
web cam call	☐	☐	☐	☐	☐
instant messenger (like whatsapp)	☐	☐	☐	☐	☐
social media	☐	☐	☐	☐	☐
handwritten letters, notes	☐	☐	☐	☐	☐

sharing my deepest thoughts and feelings

	1	*2*	*3*	*4*	*5*

sharing my deepest thoughts and feelings

	1	2	3	4	5
face-to-face	☐	☐	☐	☐	☐
telephone	☐	☐	☐	☐	☐
email	☐	☐	☐	☐	☐
web cam call	☐	☐	☐	☐	☐
instant messenger (like whatsapp)	☐	☐	☐	☐	☐
social media	☐	☐	☐	☐	☐
handwritten letters, notes	☐	☐	☐	☐	☐

sharing secrets with my partner I would not tell other people

	1	2	3	4	5
face-to-face	☐	☐	☐	☐	☐
telephone	☐	☐	☐	☐	☐
email	☐	☐	☐	☐	☐
web cam call	☐	☐	☐	☐	☐
instant messenger (like whatsapp)	☐	☐	☐	☐	☐
social media	☐	☐	☐	☐	☐
handwritten letters, notes	☐	☐	☐	☐	☐

Hang on!!

one more page and you're done!!

:-)

Keep in mind:
1 = would not use it
2 = would hardly use it
3 = would use it
4 = would rather use it
5 = favourite channel for sample situation
Note: _if you would not talk about the sample situation at all, please just skip the question". _

talk about shortcommings and handicaps

	1	*2*	*3*	*4*	*5*
face-to-face	☐	☐	☐	☐	☐
telephone	☐	☐	☐	☐	☐
email	☐	☐	☐	☐	☐
web cam call	☐	☐	☐	☐	☐
instant messenger (like whatsapp)	☐	☐	☐	☐	☐
social media	☐	☐	☐	☐	☐
handwritten letters, notes	☐	☐	☐	☐	☐

expressing my needs

	1	*2*	*3*	*4*	*5*
face-to-face	☐	☐	☐	☐	☐
telephone	☐	☐	☐	☐	☐
email	☐	☐	☐	☐	☐
web cam call	☐	☐	☐	☐	☐
instant messenger (like whatsapp)	☐	☐	☐	☐	☐
social media	☐	☐	☐	☐	☐
handwritten letters, notes	☐	☐	☐	☐	☐

talking with my partner about spontanous ideas and things that pop into my head

	1	*2*	*3*	*4*	*5*

talking with my partner about spontanous ideas and things that pop into my head

	1	2	3	4	5
face-to-face	☐	☐	☐	☐	☐
telephone	☐	☐	☐	☐	☐
email	☐	☐	☐	☐	☐
web cam call	☐	☐	☐	☐	☐
instant messenger (like whatsapp)	☐	☐	☐	☐	☐
social media	☐	☐	☐	☐	☐
handwritten letters, notes	☐	☐	☐	☐	☐

Yay, you're done!

Thanks a lot for your participation!
If you have any further questions on that survey, feel free to contact me: gusworal@student.gu.se

Appendix

Fear-of-Intimacy Scale

Part A Instructions: Imagine you are in a *close, dating* relationship. Respond to the following statements as you would *if you were in that close relationship.* Rate how characteristic each statement is of you on a scale of 1 to 5 as described below, and put your responses on the answer sheet.

1	2	3	4	5
not at all characteristic of me	*slightly characteristic of me*	*moderately characteristic of me*	*very characteristic of me*	*extremely characteristic of me*

Note. In each statement "0" refers to the person who would be in the close relationship with you.

1. I would feel uncomfortable telling 0 about things in the past that I have felt ashamed of.
2. I would feel uneasy talking with 0 about something that has hurt me deeply.
X3. I would feel comfortable expressing my true feelings to 0.
4. If 0 were upset I would sometimes be afraid of showing that I care.
5. I might be afraid to confide my innermost feelings to 0.
X6. I would feel at ease telling 0 that I care about him/her.
X7. I would have a feeling of complete togetherness with 0.
X8. I would be comfortable discussing significant problems with 0.
9. A part of me would be afraid to make a long-term commitment to 0.
X10. I would feel comfortable telling my experiences, even sad ones, to 0.
11. I would probably feel nervous showing 0 strong feelings of affection.
12. I would find it difficult being open with 0 about my personal thoughts.
13. I would feel uneasy with 0 depending on me for emotional support.
X14. I would not be afraid to share with 0 what I dislike about myself.
15. I would be afraid to take the risk of being hurt in order to establish a closer relationship with 0.
16. I would feel comfortable keeping very personal information to myself.
X17. I would not be nervous about being spontaneous with 0.
X18. I would feel comfortable telling 0 things that I do not tell other people.
X19. I would feel comfortable trusting 0 with my deepest thoughts and feelings.
20. I would sometimes feel uneasy if 0 told me about very personal matters.

X21. I would be comfortable revealing to 0 what I feel are my shortcomings and handicaps.
X22. I would be comfortable with having a close emotional tie between us.
23. I would be afraid of sharing my private thoughts with 0.
24. I would be afraid that I might not always feel close to 0.
X25. I would be comfortable telling 0 what my needs are.
26. I would be afraid that 0 would be more invested in the relationship than I would be.
X27. I would feel comfortable about having open and honest communication with 0.
28. I would sometimes feel uncomfortable listening to 0's personal problems.
X29. I would feel at ease to completely be myself around 0.
X30. I would feel relaxed being together and talking about our personal goals.

Part B Instructions: Respond to the following statements as they apply to your past relationships. Rate how characteristic each statement is of you on a scale of 1 to 5 as described in the instructions for Part A.

31. I have shied away from opportunities to be close to someone.
32. I have held back my feelings in previous relationships.
33. There are people who think that I am afraid to get close to them.
34. There are people who think that I am not an easy person to get to know.
35. I have done things in previous relationships to keep me from developing closeness.

Note. X denotes items reversed for scoring.