

Texting vs Calling: A Contextual Comparison

Harshad Golwalkar

Rochester Institute of Technology
Rochester, NY, USA
hg3583@rit.edu

Nidhi Palan

Rochester Institute of Technology
Rochester, NY, USA
npx4195@g.rit.edu

Saish Vaniyampambath

Rochester Institute of Technology
Rochester, NY, USA
sv3912@rit.edu

Shengjiao Wang

Rochester Institute of Technology
Rochester, NY, USA
sw4302@g.rit.edu

ABSTRACT

The purpose of this research was to conduct an analysis of the strengths and weaknesses of calling and texting under different contexts. Participants ($N = 5$) were interviewed and asked to review their most recent text conversations and calls. Data from interviews were collected and analyzed. Data revealed various contexts under which the texts and calls were made. We discovered that strengths and weaknesses are context dependent. We also proposed a framework to analyze strengths and weaknesses relatively by applying contexts to technological characteristics intrinsic to calling and texting.

ACM Classification Keywords

H.5.m. Information Interfaces and Presentation (e.g. HCI): Miscellaneous

Author Keywords

Texting; Calling; Context; Comparisons; Communication via phones

INTRODUCTION

Texting and calling are two of the most common means of communication. Texting in spite of its shorter history has become increasingly popular especially among teens [1]. People face the decision to choose between calls and texts when it comes to communicating with someone. The increasing popularity of texting has made us curious to explore the factors that determine people's choices. One study shows that people's mental state has an impact on their preferred form of communication: lonely people call more than text and anxious people prefer to text [2]. In addition to people's psychological states, contexts under which people call or text also may make a substantial difference to people's decision. We assume people evaluate the strengths and weaknesses of either means of

communication to decide whether to call or text. In this paper we try to assess these strengths and weaknesses of calling and texting with respect to contexts by collecting and analyzing data from interviews.

METHODS

We decided to choose interviews as a way of collecting data to understand the purpose of the recent conversations that the participants had. Additionally; conducting interviews is a good option since we were collecting personal information which is confidential and has sensitive data.

We recruited five of our friends for conducting the interviews. The participants are aged between 23 and 25. Four of them are graduate students and one is a working professional living in the United States. They used smartphones to text and call for daily communication.

Each interview lasted 15 to 20 minutes. It started with an introduction of the interviewer and an overview of the research; oral consent was acquired from all participants. The interviewer took notes during the interview and the data was analyzed after all interviews were completed.

We asked each participants to review five of his/her most recent calls and text conversations respectively on his/her phones. For each conversation, we asked about the content, context, duration¹, and asked each participant to classify it as professional or personal. We also asked them to pick between texting and calling if he/she were given a choice.

The questions were designed to be open-ended to gain instinctive information about the conversation. We did not explicitly ask our participants about strengths and weaknesses in order to unearth unbiased and in-depth answers. For our analysis, we will retrospectively deduce the strengths and weaknesses of calling and texting based on which form of the communication participants use and their explanations on why it was used.²

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for components of this work owned by others than the author(s) must be honored. Abstracting with credit is permitted. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee. Request permissions from permissions@acm.org.

CHI'16, May 07–12, 2016, San Jose, CA, USA

© 2016 Copyright held by the owner/author(s). Publication rights licensed to ACM. ISBN 123-4567-24-567/08/06...\$15.00

DOI: http://dx.doi.org/10.475/123_4

¹The duration for texting is the number for text messages in one conversation and the time duration of a call.

²It is assumed that people choose one form of communication over the other consciously and rationally. If a participant chooses to call, we assume that the participant base his/her decisions on conscious evaluation of the strengths and weaknesses of calling and texting

RESULTS

Both qualitative and quantitative data were collected in the form of interview notes from five participants. Data is first organized into a table using Google sheet. Each row represents a conversation (a call or a text conversation) and data collected are organized into 6 columns: content/context, person, duration, category, pros/cons and preferences.

Quantitative data include the duration of calls and number of texts in one conversation. Duration of calling is clustered around extremes. Most calls are short ranging from less than 1 minute to 2 minutes; and a few (two calls) are over 20 minutes. Texting has a more even distribution in terms of the number of texts per conversation: from 1 to 50.

The bulk of the data collected is qualitative. A key finding is that context plays a central role in people's decisions to use one form of communication over the other. Due to the qualitative nature and wide variety of the answers we received, a framework is proposed in order to understand the strengths and weaknesses of calling and texting with regard to contexts. Data was further synthesized and analysed according to this framework and the results are discussed in detail in the discussion section.

DISCUSSION

To discuss the strengths and weaknesses of calling and texting in absolute terms is an oversimplification of the complexity of the research question. Before conducting the interviews, we were aware of the importance of context in determining which form of communication people choose. The preliminary analysis of the data validated our prediction: people's decisions are context-dependent. In order to assess the strengths and weaknesses of calling and texting with the context in mind, we propose the following model: calling and texting have characteristics that are inherent of the technology i.e. a phone, and are independent of context, personal preferences. These characteristics are neutral (neither strength nor weakness); they become strengths or weaknesses only when combined with contexts and personal preferences. Each characteristic can be either a strength or a weakness depending on the context.³

For each of the participants' answers, we will retrospectively separate the inherent technology from the context. Since the inherent characteristics of the technology are limited and contexts are infinite, we identified nine inherent characteristics and applied contexts to them. The following is detailed analysis of the strengths and weaknesses of calling and texting.

(excluding the possibility that people make random decisions). Without this assumption, it will not be valid to retrospectively deduce strengths and weaknesses from people's decisions.

³The context is loosely defined as an encompassing group of factors that are external to the technology of the phone and users' personal preferences including: the content of the conversation, the goal and motivation of the participant, the immediate environment of the conversation, the other person on the line and etc. Inherent characteristics are what is provided by calling or texting itself. Examples are: calling uses sound while texting uses visual information; texting requires the operate a keyboard with hands the whole time and calling doesn't.

Differences as a result of the medium:

Because calling allows the delivery of sound, it is better at expressing emotions than texting through the tone and other qualities of the human voice. This is a strength in the context where a person wants to communicate with someone in close relations. The interview data shows that communications between close relations (girlfriend, boyfriend, aunt and sister) are mostly done via calls. Participants also explicitly express the feeling of intimacy when talking over the phone. This characteristic become a weakness when the expression of emotions is unwanted. One participant who was angry at a friend chose to text instead of calling to avoid expressing annoyance and anger.

Sending multimedia content is only available on texting. Our data shows that people like sending emojis, images, links etc. If a conversation requires multimedia such as one participant was texting about online shopping, this characteristic is a self-evident strength for texting. No data collected shows under what circumstance this becomes a weakness.

Different forms of input:

Calling has a higher information density than texting i.e., to deliver the same amount of information calling takes less time (based on the assumption that most people speak faster than they type). When the conversation is long and a lot of information needs to be delivered, this characteristics of calling is an obvious advantage under such context. That participants talk about credit card information, complex scheduling, school projects over the phone rather than text is a key proof to this point. The data also shows that this characteristic is always more desirable in any context and makes it safe to say that higher information density is an absolute strength independent of context.

Calling requires little visual attention. This becomes a clear advantage over texting under circumstances where a person needs to focus such as when he/she is driving, walking, etc. For one participant, four of her five recent calls happened when she was either walking on street, on a subway or a taxi cab.

Synchronous vs. Asynchronous:

Calling provides immediate response to the caller. When someone makes a call, he/she expects a response from the other person within a minute. Whenever an immediate reply or to talk about something urgent is warranted, calling has a remarkable advantage according to our data. Participants call to inform imminent plans, to inform or acquire the whereabouts of a person. Some describe calling as "quick", which can be interpreted as "providing a quick response" when viewed in the context. However, from the perspective of the receiver of a call, this characteristic is not desirable when the receiver does not want to or is not able to provide immediate response. Data shows that people sometimes feel "pressure" when receiving calls especially from unknown callers. On the other hand, texting allows more flexibility with regard to the time to respond. A text can be replied in minutes, hours or longer according to the receiver's availability. If two people are not available at the same time, texting is easier for both. Some participants do not

like to receive calls when they are busy and they also consider the other person's availability when making calls.

Conversations via texting can have a much longer time span than calling because of its asynchronicity. This is a strength of texting when the user is engaged in casual talks or is multitasking. One participant mentioned that she was watching TV while texting about shopping with two of her friends. It is only possible with texting because the conversation does not warrant any instant feedback and does not intrude on her current activity.

Social customs:

Although calling has a higher information density and is faster to deliver information, it is subject to certain social etiquette such as proper greetings at the beginning (Hello. How are you?), bidding farewell at the end, etc. This is a weakness when people do not want to engage in "full" conversations. A few participants express frustrations with small talks and some conversation is just too short to necessitate a "full" talk over the phone. For texting, conversations are more "cut to the chase" and information oriented. In our data, some conversations have only one text to deliver one small piece of information. Calls, on the other hand are usually longer. Even the shortest phone calls are longer than 30 seconds. However, these social etiquettes also make calling a more formal form of communication. All of the communication for professional purposes from our data are made via calls. Most of the text conversations are personal.

CONCLUSION AND FUTURE WORK

We conducted interviews to collect data on participants' calling and texting behaviors. The data was reorganized according to inherent characteristics and contexts. The most important finding that we interpreted from our data is that context plays a central role in people's decision to call or text. The characteristics become strengths or weaknesses depending on the combination of context and personal preferences. Some of the characteristics we found are: calling is more expressive and intimate than texting; texting is preferable when people have different availabilities whereas calling requires immediate response; calling is subject to more social customs, context will then determine the preferability of these characteristics.

There are two main limitations to this research. First, the sample is very small. All of the data were collected from semi-structured interviews with people aged from 23 to 25. The results do not accurately reflect the overall population. Second, the sample used in this research was a sample of convenience. All participants are the researchers' friends and they might have revealed more information than they normally would. Despite these limitations, the present study proposes a framework to understand the differences between calling and texting and their relations to context. The framework can be used by future studies to carry out more in-depth research.

REFERENCES

1. Thomas Holtgraves and Korey Paul. 2013. Texting versus talking: An exploration in telecommunication language. *Telematics and Informatics* 30, 4 (2013), 289-295. DOI:<http://dx.doi.org/10.1016/j.tele.2013.01.002>.

2. Donna J. Reid and Fraser J.m. Reid. 2007. Text or Talk? Social Anxiety, Loneliness, and Divergent Preferences for Cell Phone Use. *CyberPsychology & Behavior* 10, 3 (2007), 424-435. DOI:<http://dx.doi.org/10.1089/cpb.2006.9936>.