Title of Study: Investigating virtual communication model of distance separated grandchildren and grand-parents Ethics Application Number: Name of Principal Investigator: Azadeh Forghani Department, School or Faculty: School of Interactive Arts & Technology, SFU Chair of Department: John Bowes Supervisor: Dr. Carman Neustaedter

General Description

The role of grandparent-grandchild relationships in constructing children's personalities is indispensable. This bond is important since it can involve a close relationship across generations. Grandparents-grandchildren relationship could benefit grandparents, parents and children at the same time.

The importance of grandparents-grandchildren is especially critical due to generational gaps, family issues such as divorce, technological gaps, or distance. According to several reports, more than half of grandparents live more than two hundred miles away from their grandchildren. It would be more challenging for distance-separated grandparents to maintain close connection and engage children to communicate. While these remote family members try to connect with their children and grandchildren through different means of technology such as telephone and recently video chat, they always face the challenges of keeping children engaged and active in the communication. Many studies and systems have been developed so far to make this interaction more emotional, entertaining, engaging, beneficial and constructive for both sides. This study will particularly investigate the communication patterns, challenges, needs and issues in a grandparent-grandchildren relationship who are separated by distance. Our ultimate goal is to design a game-like system to provide both sides with an interactive environment that they can use for communication in a fun and engaging way However, to design this tool and potential features properly, we need to have a broad sense of the communication patterns that are present in this relationship.

Goals

The general goal of this study is to investigate the communication models of distanceseparated grandparents and grandchildren. In order to do this we have to discover:

- What is the current content of communication between distance-separated grandparents and grandchildren?

- What are the particular children' daily activities that grandparents are interested in being aware of?

- What cultural information and traditions are grandparents eager to share with their grandchildren? (Particularly for those who live in different countries with different cultures)

- What activities motivate children to engage more in computer-mediated communication with their grandparents?

- What kind of child activities do parents want grandparents to be involved with?

- What are the expectations of parents for grandparents-grandchildren remote communication?

Recruitment

Adult participants over the age of 19 will be recruited via several strategies as follows

- **Snowball sampling:** Participants are recruited among our acquaintances such as family, friends and colleagues and we will also ask them to forward our advertisement to others that might be interested
- Social networks: Posts on Facebook, Twitter, Google+ and Craigslist.
- **Emails:** Emails will be sent to specific targets such as schoolteachers and ask them to forward it to the parents, after we have permission from the school for sending such information.
- **Posters:** Posters will be placed in some areas where we think people might have the desired conditions and might be interested in the study, places such as Vancouver Public Library, VPL Children, children section at Chapters Indigo, kindergartens, elementary schools, after we have obtained approval from these organizations for posting.

Please refer to Sample Recruitment Content for details.

We will recruit interested adults who:

- Grandparents and have at least one grandchild over three years of age..
- Live remotely from their grandchildren, preferably living in different countries rather than different cities. (We might consider those who live in different homes and cannot see each other very often.)

Or

- Have at least one child between over three years of age.
- Live remotely from their parents or their spouse's parents (e.g., the childrens' grandparents live remotely) who are interested to participate in this study. Again we prefer they live in different countries rather than different cities, however living in different homes might be considered too.

Location of Study

This study will be conducted at places convenient to the participants. This might include either a visit by the researchers to the participants home or any other meeting place that is convenient for participants especially for older adults. Interviews with participants who live remotely will be conducted over the phone, or a communication medium such as Skype, Google Hangouts or any other audio/video chat environment depending on the participant's preferences. Confidentiality of information transmitted electronically cannot be assured since there is always a risk of using these mediums. We will warn participants about these risks and participants will have the option to participate (or not) over such mediums.

All participants will complete an online consent form prior to participating in the study. For in-person studies, this will allow participants to completely understand the study before we come to their home. For remote participants, this will allow them to complete the consent for online and facilitate remote participation.

Please refer to the Consent Forms for details.

Methods

We will use a combination of methods to understand remote communication between grandparents and grandchildren. Among all interested candidates, we will recruit between 10 and 30 individuals to participate, depending on the data we receive as we conduct the study. We will try to target different combination of families including families with one child, more than one child, and a mix of genders.

Our chosen methods include interviews, a diary study, and observations.

Interviews: We will conduct semi-structured interviews with participants where we will have several questions prepared (see appendix). After some introductory and ice breaking conversation about the study, participants will begin by asking some general questions about their own (or their childrens') personality, hobbies, and family history. The interview will be continued with questions about the communication and interaction patterns between grandparents and grandchildren either in-person or remotely to better understand their daily routine, relationships and emotional mutual connection. Once they have the chance to pass this initial phase and get comfortable with the researchers, we will move on to questions relating to their needs and attitudes about communication. In the case of grandparents who are participants, these questions will focus on their preferred methods of communication, the content of communication, and the awareness information they like to know about their grandchildren. In the case of parents who are participants, we will ask similar questions focused on the parents' perspective. We will also ask them about any kind of joyful experience, conversation or interaction that they had with their own grandparents or wish to have when they were children.

Diary Studies: Participants will be also asked to make an online daily diary of their emotional needs, thoughts and their preferred interaction and communication methods over a period of several weeks. For grandparents, this diary will include specific experiences they want to share, story or emotions that they want to talk about with their grandchildren and daily activities of their grandchildren that they like to be aware and updated about. For parents, this will document similar aspects but from the parents' perspective. The online diary will be placed on our study web page on a secure web server at SFU.

They will have the option to write the diary at any moment of the day, but they will also

receive a daily reminder sent via email or text messaging to encourage them to visit the page and create a diary entry. This is a common approach in experience sampling methodologies.

Observations: We will also observe a select number of participants where we will go to their home and observe their interactions with their grandchildren or children. This will give us the opportunity to see children's feelings, expression, and conversation.

Remuneration

Each participant in an interview will be compensated with a payment of \$20. Each participant in the diary studies will be compensated with a payment of \$20 provided that they enter at least 20 detailed diary entries. Participants who decide to withdraw before completion will receive an amount pro-rated according to the time actually spent.

Benefits and Risks

Participants will not benefit directly by participating in the study, though they will be compensated for their time according to the remuneration outlined above. The risks of the study are expected to be none or minimal. We do not expect any risks to occur because people are talking about their everyday mundane interactions with others. We do not expect to any emotional discomfort and/or privacy discomfort though participants who live remotely from their grandchildren may feel mildly sad when discussing them because of the distance-separation.

Data Collection

Data will be collected in the form of audio recordings (of the interview conversation), text (from the diary entries), and video or photographs of aspects of the participants home (e.g., showing us where they communicate with their grandchildren). All data will be used for analysis to reveal core communication themes and needs. Video, photographs and audio will also be used to understand emotional moments, engagement or affection that might not be easily revealed in text. We will capture video and photos in such a way that they do not reveal identity, e.g., no faces, or mask out such identities after recording by blurring them. The collected information will be kept on a secure external hard drive in a locked cabinet in the secure office of the primary investigator at the School of Interactive Arts and Technology without any identifying information. This information will be kept for 3 years and then due to completion of the analysis they will be totally destroyed. Public presentations of our result will be presented in a way that the contents of result will not direct audience to the participant's identification.

Analysis

We will use standard qualitative analysis techniques such as coding, descriptive statistics, and narratives to analyze participant responses.

The possible implications of the results include:

a) A better understanding of the natural communication patterns of grandparents and grandchildren who are separated by distance

b) A better perception of the difference nature of both sides of the study, needs, gaps, motivations and level of engagement.

c) A better design of communication tools or systems for distance-separated grandparents and grandchildren, which tries to fulfill grand parents', parents' and children' satisfactions.