

Staying Together as Family while Separated: Picture Blogging through eKISS

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ABSTRACT

Contemporary family life can be very stressful and many families are often busy and separated by time or distance. Physical separation makes it difficult to maintain an awareness of each other and the feeling of intimacy. But lack of such intimacy can result in insecure and troubled children. This paper outlines eKISS a picture weblog for mediating intimacy between children and parents. eKISS supports asynchronous sharing of experiences from the children to their parents while being physically separated. Communication is based on pictures and text sent through mobile technology and shared on a weblog available to the family. A longitudinal field evaluation revealed that eKISS was able to support acts of intimacy by providing insight, new communication channel, and the possibility to easily share experiences. It also revealed that eKISS was most useful when the family was separated for longer periods of time.

Keywords

Children, parents, mediated intimacy, picture sharing, blog.

1. INTRODUCTION

Contemporary family life can be very stressful and many families are often busy and separated by time or distance. Jacobsen and Tonboe found that the time families spent together nursing family relations has decreased significantly during the last decades [2]. Growing workloads of parents and the fact that children spend much time outside the home imply a decreased awareness of other family members. Domestic problems in families such as couple separation or divorce only make distributed family life even more difficult.

Zuckerman and Maes claim that geographical separation of many families makes it difficult to maintain an awareness of each other and the feeling of intimacy [6]. Furthermore, in several societies children and grandparents are not co-habiting making it difficult for them to maintain social connections. Such connections have shown to improve the wellness of aged people helping them to remain living in their own homes thus reducing the cost to the residential care system. Intergenerational social connections between children, their parents, and grandparents are vital for the well-being of all family members, but distributed family life poses a number of substantial challenges that affect both society and individuals.

We are currently witnessing information and communication technologies being used to maintain social connections with family members to achieve better awareness of each other and thereby create a feeling of intimacy. For example technologies like mobile phones, E-mail, instant messaging and SMS have been adapted to help us feel connected with people that we care about [16]. While such technologies were designed to support activities in work domains, a strong desire of establishing and maintaining social relations have pulled such technologies from the work domain into the domestic domain and shaped them for a social use. Emerging information and communication

technologies are about to change and affect how we interact and coordinate with each other and thereby they mediate awareness [5]. Various research studies suggest different approaches and strategies for mediating intimacy and thus enhance the feeling of presence. Siio et al. present Peek-a-Drawer, a system for enhancing the feeling of presence between children and their grandparents by exchanging artifacts [4]. Whatever the child puts in the top drawer is displayed in the bottom drawer at the grandparents and visa versa. O'Hara et al. outline a system that makes it possible to send text messages to the family homes and not to a specific person [3]. Thereby they attempt to enhance the sense or feeling of unity in families as all household members can share the messages.

This paper reports from the design of mobile picture blog system for promoting and supporting intimacy. We call this system eKISS. The design of eKISS was inspired by themes identified in child-parent intimacy.

2. THE eKISS BLOG

We designed eKISS to support parents and children in their intimate communication, and we base this design on a previous study of child-parent intimacy [1]. The system name represents an electronic kiss as we see the kiss as a basic symbol of intimacy. eKISS is also short for “electronic Knowledge and Intimacy Support System”.

2.1 Mediated Intimacy Children and Parents

In order to design eKISS, we conducted an empirical study to understand the way children and parents share and mediate intimacy. The study involved three families with children. We deployed a cultural probe within the families and asked them to use it for a seven-week period. In this period, they were instructed to use the probe to document their family communication and intimacy. We used contextual interviews to clarify the data collected through the cultural probe. The following section describes some of the findings from the study, which we have used as a foundation for eKISS. More details on the empirical study in [1]. We identified three challenges when mediating intimacy between children and their parents.

The first challenge reflects the parents' effort to keep in contact with their children while separated. The parents tried to gain a continuing insight in the lives and wellbeing of their children, as a part of their parental facilitation of care and support. The parents wanted assurance and they wanted to be able to support their children if anything was wrong. But parents found it difficult to achieve this insight as the children often neglected to disclose information to the parents. They either forgot or they found other things more interesting.

The second challenge exemplifies parents asking their children what they had been doing during the day or what they had experienced. The parents often had few references from the child's day and they would ask questions like “what have you been up to today?” It was often hard for the children to process

a whole day of experiences. Therefore, they just told about the few things they found interesting to share or they simply replied that they could not remember what they had been doing.

The third challenge illustrates that the children found it difficult or impossible to retell all experiences they have had. The children expressed that they often had difficulties remembering what they had experienced during the day, or they simply did not bother to tell it. Often the children were not motivated to tell about their experiences, as other things were more interesting.

The above-identified challenges informed the design and implementation of mobile prototype system for mediating social awareness and intimacy.

2.2 System Functionality and Architecture

We designed eKISS as a mobile picture blog. The system consists of a website that handles pictures and texts sent from the children to eKISS by sorting them according to the date and time they are sent and presenting them to the users in a structured way. Every family has their own personal weblog only accessible by members of the family.

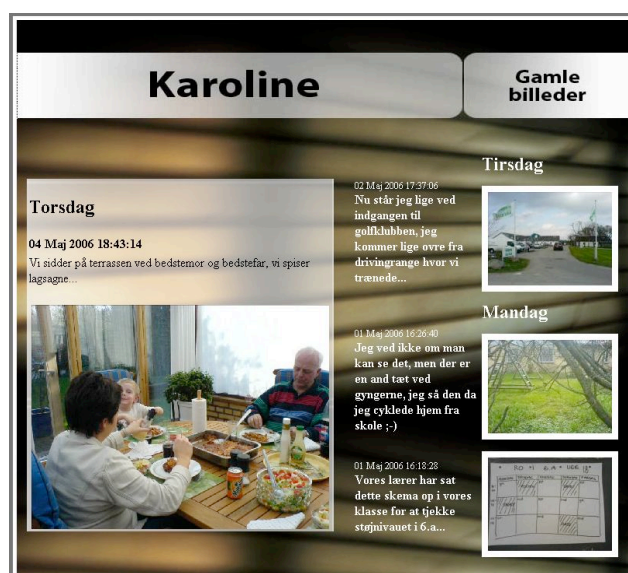


Figure 1: Front page in eKISS

eKISS are fed with pictures from the children who use their regular camera phones to take pictures of objects, people and situations they wish to share with their parents. The children can also add text comments to the pictures if they want to. The pictures are then sent from the phone as an MMS (Multimedia Messaging Service). The phone needs no special software installed to be able to send the pictures. The only requirement is that the phone needs to support GPRS (General Packet Radio Service), which is a common transfer technology used for mobile services.

Messages are automatically shown on a blog (moblog.tv2.dk). We chose to use an existing weblog, as we did not have the technology to extract pictures from an MMS-message and place it on the Internet. TV2's Moblog provides an RSS feed which present the latest pictures and the added text. We used this RSS feeds to extract the pictures to eKISS. Every 5 minutes eKISS checks the RSS feed to see if any new images has been posted. If new pictures occur, they are added to eKISS along with the text, date, and time. We used the XSLT (Extensible Style Sheet Language Transformations) in three steps. The first step copies and arranges the parts of the original xml-file that is needed to show the desired content on the website. The second step

rearranges the content in a way that is easier to use directly when building the website in the later steps. The third step uses the resulting xml-file to build the website containing the most recent pictures.

The user interface in eKISS displays the pictures and text that has been sent. The parents can access the webpage from any computer with access to the Internet and a browser installed. When entering the webpage's address, the browser prompts the parent for username and password. After they have logged in, they are prompted with the front page of the weblog. The page displays the four newest pictures sent to the system along with date and time they are sent. The newest picture is displayed in large, while the rest is smaller. If the parents click on one of the small pictures, a popup window will display the picture in its original size. The text saying "Gamle billeder" (top right in figure 1) is a link to a second page which displays all previously sent pictures in chronologic order.

3. EVALUATION

We conducted an evaluation to explore the effects of eKISS and in particular, to what extent eKISS supports intimacy between children and their parent. The evaluation was organized as a longitudinal field study and took place over five weeks. The aim of the study is to measure whether eKISS makes the parents gain additional insight in their children's lives while separated.

3.1 Participants

Four families participated in the evaluation. All families lived and worked in the greater Aalborg area, Denmark. The families were recruited through mailing lists and contacts at Aalborg University, Denmark. All parents had access to the Internet and the family should have children in the age of app. 10-13 years old. The children had access to a mobile phone. In addition, we strived for rather different families to stress diversity in the use of eKISS. In this way, we settled at only four families well aware that additional families could provide stronger results in terms of usage and motivation. We recruited families through a number of conversations and made sure that they were motivated and could participate in a longitudinal study over several weeks. The families were quite different in terms of family structures and habits. The first family was a one-parent family and consisted of a mother aged 40, a girl aged 11 and a boy aged 6. The parents were divorced and the children lived with their mother. The father lived in the same town. The second family was a family of four, with a father aged 41, a mother aged 39, a girl aged 12, and a boy aged 5. The parents worked full time and had access to the internet from work. The father was often separated from the rest of the family for several days due to business trips. The third family was a family of four with two parents. The mother was 38 and the father was 42. The oldest boy was 11 years old and the youngest was six. Both parents worked full time. In the morning, they drove with each other to work. The fourth family was a one-parent family with a mother aged 41, a boy and a girl. The boy was one year old and lived with his mother. The girl was 11 years old and lived with her father in a different part of the country. The mother worked full time and had access to the internet most of the day.

3.2 Data Collection

During the five weeks period, we conducted contextual interviews with the families. When possible we arranged the interviews in the homes of the families to make them feel as comfortable as possible. Each of the interviews had the purpose of clarifying the families' communication and experiences with eKISS since the last interview. During every interview, we

produced a summary. The first interview aimed to introduce the study and the functionalities in eKISS. The purpose this interview was to provide the families with an understanding of the work preceding the development of eKISS and to make sure that they knew what our purpose of the study was. The aim of the second interview was to make sure that the families were comfortable with eKISS and to answer their questions if anything had come up since our last interview. The aim of the interview was to follow up on and gain a deeper insight in the families' experiences with eKISS so far. Furthermore, we wished to present a number of changes for the last two weeks of the study. The aim of this interview was first to gain insight in the effects of the changes that was made at the last interview, if any. Secondly, we were interested in discussing the families' experiences with participating in the study and hearing about their ideas for further development of eKISS.

4. FINDINGS

The four families used eKISS in different ways and to different extents. These differences in use may be due to differences in the family structures, in the extent to which they are normally separated and in each of the children's desire to share experiences. The children did not send as many pictures to eKISS as we had expected. During the entire period, they sent respectively 14, 21, 24 and 26 pictures. The family with most pictures were family four who is normally separated by distance during periods of approximately two weeks. The family with 14 pictures lived together and saw each other on a daily basis. There have also been great differences in the number of visits to eKISS. The families have visited eKISS 29, 39, 64 and 134 times, respectively. The family with most visits was also the family who is normally separated by distance. From our data, it is not clear whether the separation is the greatest reason for the differences, but the parents' normal use of the internet and the availability of computers and internet access may also have contributed to these very different numbers. In the following, we present seven findings related to the families' use of eKISS.

4.1 Facilitating Interaction While Separated

The parents expressed different levels of needs to keep updated on their children's experiences via eKISS. Common for all parents were that they felt a greater desire for contact when they had been absent for a period of days, than when they saw their children every day. Some of the parents were away from the family for a number of days due to their work. At the interviews following these periods of separation they expressed that they had felt great satisfaction with eKISS while they were away because the pictures gave them a feeling of presence. They also felt that eKISS gave them something that a phone call could not have given them. They liked the fact that the pictures gave them an indication of the family's mood, which can be difficult to achieve through the phone. At the same time, they made it clear that the phone gave them a kind of connectedness that eKISS could not provide.

The type of pictures also changed while the parents were away. The family members that were with each other at home took pictures of situations in which they were doing things together. For example, one of the families took a picture of the first time they had a barbecue that year. That was something the father normally did with them, but due to his absence, he could only see the picture (see figure 2).

Our data do not indicate whether the children felt a greater need to share pictures with their parents while they were absent, only that the parents felt a greater desire to keep updated on the family's well-being while they were separated from them. In

most cases, the parents have only used the system while they were separated from their children. This was both at work during the day and at home in the evenings. We expected eKISS to be a part of the conversation that the children and parents had when they saw each other at the end of the day. One reason for the missing involvement of eKISS could be that they are often doing other things that prevent them from using a computer while talking. For example, most of the families talk about their day while eating dinner together. This situation makes it difficult to use eKISS since it requires a computer with internet access. Furthermore, the parents might not feel the need to see pictures of their children while they are with them.

During the five-week period, the schools were closed for a period of 11 days due to the Easter holidays. In this period, the families spent a lot of time together at home. In the days that the families were at home the use of eKISS almost stopped. The few pictures that were taken were mostly intended for parents that were separated from the rest of the family. This indicates that eKISS is most useful in situations where the families are apart, which was also the intended situations of use.

4.2 Children Became Aware of Parents

"I have thought more about what my mother might be doing when she sees the pictures I have taken". This was said by the daughter in family four who was normally separated from her mother. The mother stated that she also felt that eKISS made her think more about what her daughter might be doing while she visited eKISS to see if she had shared new pictures. This gave us an indication that eKISS increased the level of awareness between the family members.

4.3 Unclear and Unnecessary

The children found it difficult to identify relevant and interesting motives. At our second interview, one of the children expressed *"I want to take pictures. It's just hard to find things to photograph"*. The other children expressed the same problem. They did not feel that they could find anything that would be of interest for their parents. Because of this, most of the children forgot to take pictures. When they did take pictures, it was often *"just the best thing I could find when I remembered to take a picture"*. The lack of feedback in eKISS between the children and their parents could possibly explain some of these problems. The children received no immediate response from the parents or from any peer children on the pictures taken. Our findings indicate that the lack of information on responses to the pictures made it difficult for the children to assess when to take pictures and in what situations.



Figure 2: Example of a picture showing the other family members. The note says, "We are at the terrace at grandmother and grandfather, we are eating lasagna"

Most of the parents told us that the pictures they liked the most showed them something about their child's feelings or the mood they were in when the picture was taken. They felt that these pictures were confirmatory in situations where they were insecure of whether they were doing *"the right thing"*. One of the families moved while we were doing the study. The day after they had moved the boy took a picture of himself smiling, and wrote a note that told his parents that he was with some of

his friends. At the following interview one of the parents said, *"We felt very happy to see that we were doing the right thing when moving closer to his friends"*.

Another example from the same family was that they had to give up their dog because they were moving. One day the boy had taken a picture of the dog and a football (see figure 3). He had written a note saying that he had gone home to play football with the dog. This showed the parents that he was more upset about giving up the dog than they had known.

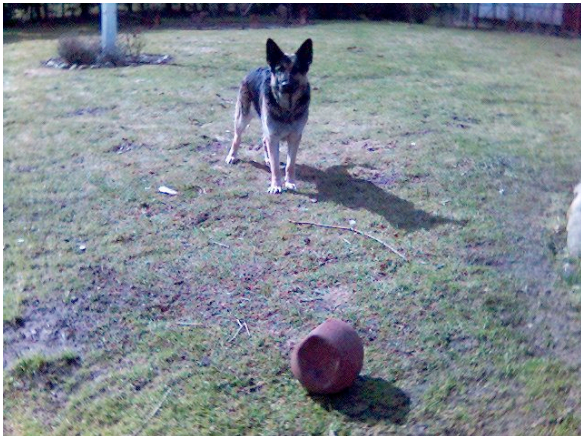


Figure 3: Example of picture that disclosed feelings where a family had to give up their dog due to their relocation.

In both these cases, the parents called each other at work and talked about the pictures, as soon as they had seen them. They waited to talk to their son until they were together.

4.4 Coordination and Note Writing

Some children used eKISS for coordination purposes. As an example, a teacher had given one of the children a note that he should remember to show his parents. He took a picture of the note and published it in eKISS. The parents would know that the child should remember to give them the note. He also took pictures of his math book, when he should remember to do a number of exercises. Although these pictures were mainly for their own use, the children did not see the pictures themselves, but relied on the parents to help them remember. We did not expect this kind of use, before the study began.

5. CONCLUSION

In this paper, we presented eKISS a weblog for mediating intimacy between children and parents. eKISS was deployed and evaluated through a longitudinal study which indicated how eKISS contributed to the intimacy in four families. The evaluations showed that eKISS provided new ways for the parents to gain insight in their children's lives while being apart. The parents used eKISS at work to be able to see what their children were doing. The parents' use of eKISS at home was limited, but the pictures made them able to initiate conversations about the children's day, using the pictures as reference. eKISS showed to be most useful when the family was separated for a longer period or when the child and parent lived apart. We found that eKISS made it possible for the parents to gain a better understanding of the experiences their children had. Through the pictures, they were able to see things, people and locations they normally did not see. This made it easier for them to understand the children when they described one of these things. We found that pictures with intimate or emotional contents were most useful for the parents. These pictures made

it possible for them to discuss personal aspects with their children. For the children, we found that eKISS gave them an easy way of sharing things with their parents. It also enhanced their feeling of presence towards the parents, as the task of taking pictures, made them think of the parents. Even though the children had positive effects from using eKISS, they were not motivated to take the pictures. They found it difficult to find motives and difficult to remember to take the pictures.

Our study is limited in a number of ways. First and perhaps foremost, the lack of feedback or reciprocity caused the children to adapt the system less than we aimed at. The lack of feedback seemed to prohibit a learning process where the parents could offer their immediate perspectives and impressions of the shared pictures. The anticipated learning during dinnertime or similar was less obvious than we initially expected. Our study identifies several avenues for further research within mediated intimacy in families. First, how can we design systems that allow more seamlessly synchronous communication and interaction? SMS or text-messages allow children and parents to communicate during separation but our study indicated that children are less willing to engage in such conversation or communication with their parents. Secondly, how can we design systems that more easily supports communication of moods between children and parents? Initially we hoped that the sharing of pictures would reveal much more of the well-being and mood of the children. However, this was not the case. We need further studies that investigate into communicating moods so that the parents could take action in specific situations.

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