
Amor: Supporting Emerging Adult Couples to Manage Finances for a Common Goal

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ABSTRACT

A healthy romantic relationship is one of the life goals of many couples. Sharing feelings, emotions, thoughts, activities, and even finances enables couples to spend quality time with each other. In particular, financial management plays an important role in relationship quality of emerging adult couples. We present Amor, a mobile application that bridges emerging adult couples closely to pool and spend their money together for a common goal. Amor also allows the couples to explore activities that harmonize with their characteristics as well as an encouragement for the two to achieve their desired goals.

CCS CONCEPTS

- **Human-centered computing** → **HCI design and evaluation methods.**

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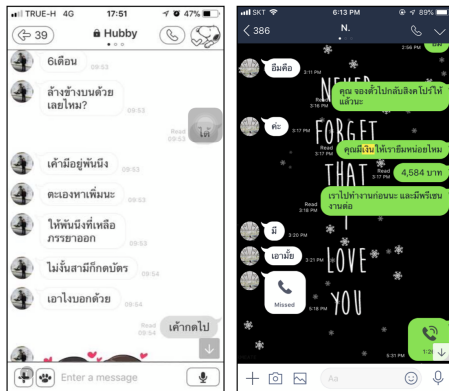


Figure 1: Chat history gathered from two couples.

"Honey, can I use 60,000KRW of our money urgently?"

"I have only 1,000THB with me. Can you help pay the rest? Let me know how it work out."

"I have already booked the flight for our trip. But can I borrow your money? Do you have 4,568THB with you?"

Sidebar 1: Quotes from the chat history



Figure 2: Face-to-face interview

KEYWORDS

Romantic relationship; couples; finances; pooling money; user centered design.

INTRODUCTION

A romantic relationship plays a role in a person's life goals. A study demonstrated that romantic relationship was in top three prominent goals of emerging adults [7]. The relationship can play out fears of rejection and trauma carried on from someone's childhood. Learning about those fears of intimacy with a partner can lead to a valuable personal growth. When two people have the opportunity to execute tasks together, for instance learn, grow, heal and share their love and passion, they have a good chance of creating a lasting healthy romantic relationship. Yet, for emerging adults, concerns about financial resources were highly prominent due to the transition to a more independent lifestyle. It is the first time in their life experiencing challenges of financial resources [7]. Such stressful problems may cause difficulties in a romantic relationship.

A study has demonstrated that having shared views about roles within the relationship and having perceived shared goals and values about money were more likely to be predicting factors for satisfaction [1]. Furthermore, communication about money helps not only the couples' relationship, but also attaches to group of family members. We believe that a technology-supported financial management that targets a small group of people in a household can shed light about solution to communicate about money. Thus, we begin our design process by asking "how can we facilitate the romantic relationship by indirectly bridge them together using shared goals with pooling money?"

In our study, we conducted three types of user studies to understand the relationship management practices of emerging adult couples and identify needs and concerns related to financial management. Through survey of 72 subjects, the examination of chat history of 4 couples, and the interview of 19 people, we found that the couples have high engagement with the partner in sharing activities to do together, and those activities may change due to their financial contribution and condition. We also found that they usually take pictures to share their memories. As a result we present Amor, a mobile application aiming at bridging emerging adult couples together using shared goals with pooling money.

RELATED WORK

Romantic relationship of emerging adults

Researchers have investigated that having a couple to share each other's life dreams is essential [11]. They can provide support and respect for their partners' life dreams [11]. For emerging adults, in order to make the transition to a long-lasting romantic partnership, they have to agree in various commitments regarding new adaptations including financial resources to sustain a relationship [9].

"We use a couple [bank] account to collect money. We spend the money mostly for our dating." - P1 (27)

"I fail many attempts to collect money with him. I don't know why." - P2 (23)

"We spend time together often on week-end. We usually go out for watching movies, or having dinner." - P3 (26)

Sidebar 2: Quotes from Interviewees



Figure 3: Paper prototype

Financial success is likely to drive increasing romantic involvement, and it has a significant influence on marriage [3].

Financial matters in romantic relationship

Prior study has shown that sharing financial concerns between couples can help strengthen their relationship [4]. In line with this work, a study in money management practices of college students who are in committed romantic relationships has found that they discuss spending and saving strategies as a team. They also believed that the best way to manage their money was to have their finances both pooled and separated [8]. Thus, we keep in mind that our design should include communication over financial matters and negotiation of money management.

Research regarding couples is not a new topic in HCI, however their target differs from us on investigations towards couples. They range from distant geographical locations couples [2] to investigation towards used channels of connection [10]. Meanwhile, studies of collaborative goals on the daily routine [5] collaborate to our aim and understanding of couples' current state.

Other studies with focus over financial issues and information on the HCI field look over aspect of individuals' organization over their personal finances [6]. However, few studies have investigated the financial management of emerging adult couples that are experiencing new life transitions. Therefore, we identify design opportunities to mitigate the financial conflicts of couples by supporting them to pool money towards a shared financial objective.

USER RESEARCH

Phase I: Surveys

Our survey was conducted mostly with people from Thailand and Republic of Korea with the total of 72 survey participants (26 males and 48 females). We included data from those at ages 18 - 29 years old only. As a result, data from 64 responses were analyzed. 54 participants reported being in a relationship. The results of the survey show that 66% of respondents meet their partner in person at least once a week, and 47.5% of them chose to be on a relationship because they want to have someone to take care of or being taken care.

Furthermore, we investigated how they maintain their relationships. We found that 60% of respondents talk to their partner every day, reported to spend time together to have a meal (85.7%), watch movies (54.8%), and travel (38.1%). They also informed that they use technology to connect to each other with mediums such as chat application (88.1%), video call (50%), and other social network platforms (61.9%).



Figure 4: Low-Fidelity prototype



Figure 5: Participants evaluated the high-fidelity prototype.

Phase II: Chat History (Figure 1)

From prior studies, we identified a way to understand couple's behavior on a day-to-day basis. We then observed them using their chat history to understand their behavior and habits. We recruited our survey participants. As a result, we had four couples who volunteered to disclose their conversation. We saw that the frequently mentioned topics were eating, know each other current location and general issues such as a job and relationship. Besides, we found that emerging adult couples pool money together, and sometimes uses the pooled money they have collected (Sidebar ??).

RESULT

Phase III: Interview (Figure 2)

Realizing that finances plays a significant role in a romantic relationship, we interviewed 19 individuals who are in a relationship. The informed consents were delivered to them verbally. We discovered that many couples spend their leisure time together especially weekend and holidays to do activities together and they use their pooled money. Yet, sometimes would like to use it for other activities and have struggles to spend the money for another purpose. While few participants reported their willingness to manage money together, they were not sure how to do so. In total, 13 individuals summarized having a financial concern about their relationship (Sidebar 2).

Our research studies demonstrated highlighted design opportunities for emerging adult couples in money-related issue. The majority of participants revealed that they have high engagement with their partner with constant chatting, video calls, and the use of other social network platforms. Thus, a mobile application, even if its purpose is for a money-related issue, should engage and make the couple feel like they are together to achieve the same goal.

Moreover, we found that deciding activities together has the possibility to change according to their financial situation. Consequently, we desire to provide a solution for emerging adult couples to choose the activities together in a more systematic and quicker way. With such a goal in mind, we created personas that: a) share information or contents about activities to do together online; b) pool money to spend on their dates; c) take pictures to share memories.

THE SOLUTION

We present Amor, a mobile application aiming to bridge emerging adult couples closely to pool and spend their money on their time together. The app provides the state-of-the-art of a smart assistance to help the couples explore activities that harmonize with their characteristics and encourage the two to achieve their desired goals.

Amor provides users with recent activities and various missions they can do together according to their personalities (Figure 6). After a user explores missions, if he/she'd like to do with the partner,

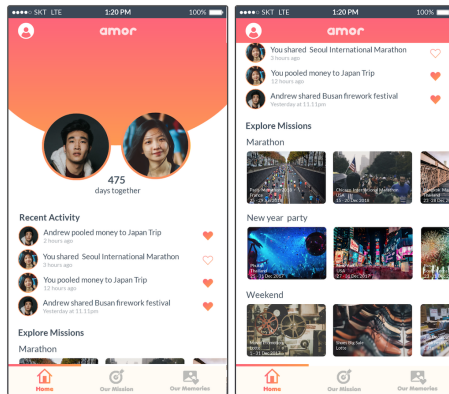


Figure 6: Explore missions*

*Profile images are gathered from Unsplash (Hermes Rivera and JodyHongFilms)

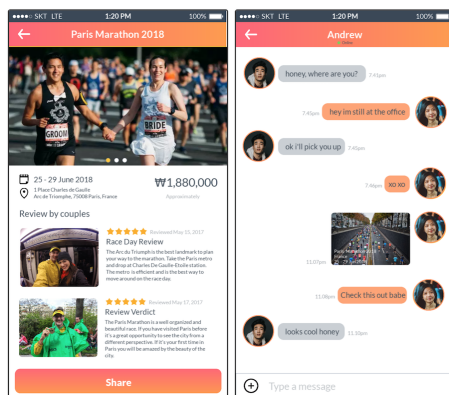


Figure 7: Chat and negotiate

then they can show it with the Share button. Shared missions will be immediately transferred to the couple's chat room for convenience. Both can click on the mission to see details and have the possibility to agree to do it (Figure 7). A dashboard presents missions and objectives (Figure 8). It visualizes the couple's financial progress. The dashboard provides the opportunity to pool money together to achieve a desired value. When it is reached, the couple can decide to use the money by shaking their phones together to activate the card (Figure 9).

Photographs taken together are grouped by activity and stored in chronological order. This section provides an opportunity to couples for future activity. In any particular completed missions, they can see photos as well as comments to remind their time together.

With the intention to visualize our concept on a quick and not time-consuming form we decided to create a raw paper-based prototype (Figure 3). We then developed a low-fidelity prototype (Figure 4) to understand user flow and how participants could iterate with our application in further evaluation tests. From the result, we combined feedback from users and experts to develop a high-fidelity prototype. The current prototype is available at: <https://marvelapp.com/3cgfg0a>

EVALUATION

We conducted pilot studies for two rounds. The informed consents were delivered to the participants for both evaluations verbally. The first evaluation was a heuristic evaluation to test the Low-fidelity prototype and the second one has been done to test the High-fidelity prototype. The first evaluation has been conducted with five participants who were graduate students in design area. We used the Low-fidelity prototype (Figure 4) and asked users to do the following tasks: see the recent activity, filter out activities and see details of confirmed activity, recall past memories. From this result, we combined two different menus and used an achievement level instead of a contribution level to show the percentage of their achievements. We also focused on the creation of an affordance to help visualize numbers related data. To avoid conflict when using the money, we added a smart card system. This card could be only used after shaking both of couple's phones, which is to show their agreement to use their money.

For the second evaluation, we gave the High-fidelity prototype to three participants to use it freely. The participants were graduate students who have been in a relationship for more than 6 months. Our focus was to look at exploring mission, pooling the money, and using the smart card. From this feedback, we added an area dedicated for exploring missions with images on the 'Home menu'. Also, when they want to pool the money into the couple account, they can check the popup message with the indication of the amount of money they are going to pool.

Users' feedback helped us to acknowledge the real context of use in the various types of couple relationships and reduce possibilities of conflicts that our app might cause. It also helped us to strengthen the brand identity that focuses on the couple's relationship.

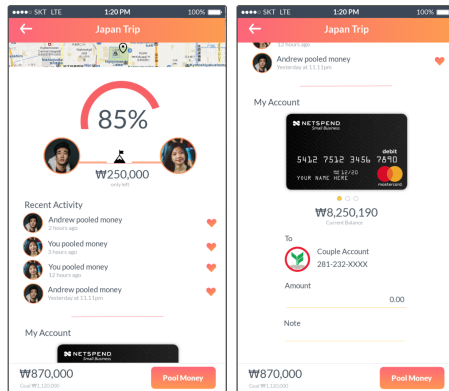


Figure 8: Pool the money

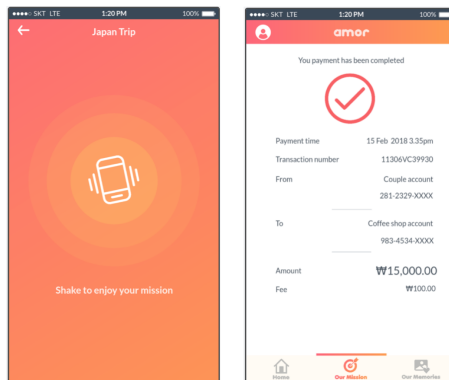


Figure 9: Couple has to agree to use the money by synchronously shaking their phone.

CONCLUSION

We hope that Amor stands in a unique position in terms of motivating the couples to set missions together and helping them to pool money more voluntarily without any sense of obligation. There are already existing apps that help couple's dating and allow to check the account record, but the main difference is that they only focus on the behavior itself rather than considering the couple's overall context of use and keeping their relationships. Amor uses the joyful missions to motivate couples to pool money together without conflict on a more rewarding way.

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