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# Uncomfortable yet Fun Messaging with Chachachat

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## Abstract

In order to improve user experience and to foster novel ideas, some voices in the HCI community have argued to break fundamental design rules, an approach well known in the art community. In this paper, we use this radical approach to design a playful mobile chat app called Chachachat, which allows users to send colorful 3-phrase messages from a limited set of phrases taken from dating websites and encourages intimate messaging with strangers with no possibility of meeting offline. We also present a case study of the usage of Chachachat in the wild over a period of six months and discuss ethical issues.

## Author Keywords

Playful chat; UX; Discomfort; Gamification; Fun

## ACM Classification Keywords

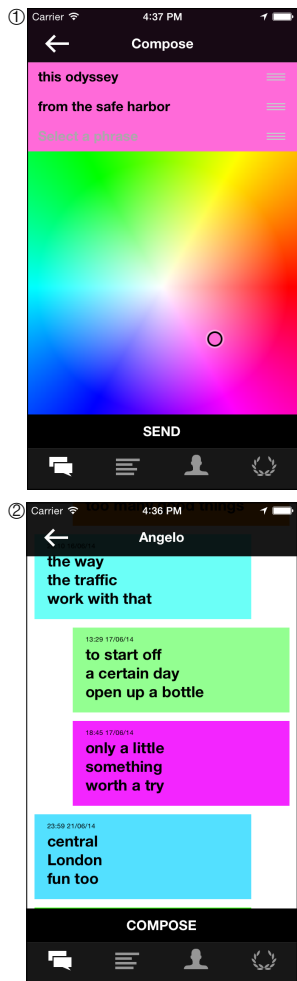
H.5.2 [Information Interfaces and Presentation]: User Interfaces - Interaction styles

## Introduction

Usually, when designing interaction the objectives are to improve usability, ease-of-use and usefulness. Nevertheless, advances in design often do not come from refining existing paradigms but from breaking established rules to find new unexplored territories and overcome innovation plateaus [6]. Furthermore, some voices argue

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**Figure 1:** (1) UI showing message creation with phrases and color selection. (2) UI showing a conversation.

for the investigation of discomfort [3], nonsense [10] and difficulty of use [11] to enrich the overall user experience (UX) and to foster novel interactions.

Chat apps are particularly timely since they are currently among the most popular mobile applications. Typically, WhatsApp with its current 64 billion messages a day<sup>1</sup> is “one of the most popular paid-for apps across all mobile platforms” [5]. Given this popularity of chat apps, they represent a good candidate for a radical redesign. Noticeable examples of the out of the box thinking for messaging apps, that we detail further in the paper, include Snapchat and Yo. Following a similar radical approach, we designed *Chachachat* as a chat mobile app which provides interactions that are alien to several fundamental existing chat features.

In this paper we aim to investigate the following research question: *Can a messaging app that includes discomfort, nonsense and difficulty of use in its design be enjoyable?* This paper’s main contribution is a case study of the integration and evaluation of elements of discomfort, nonsense and difficulty of use in a chat app called Chachachat. This paper is organized as follows. First we present the *Chachachat* app and review related work. Afterwards we detail our case study and discuss ethical issues highlighted by the application. Finally, we wrap up with a conclusion and an outlook on future work.

## Chachachat

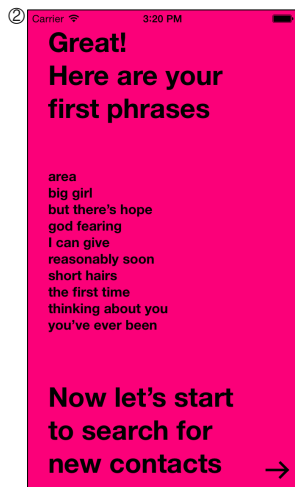
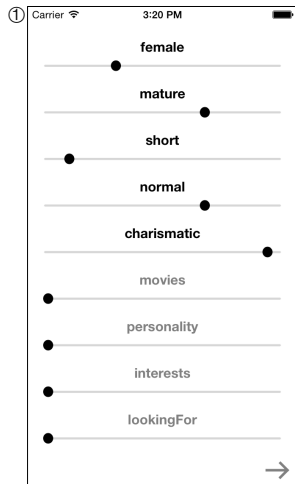
The Chachachat<sup>2</sup> app allows to send colorful 3-phrase messages for fun to people selected by *characteristics*. The UX in Chachachat contains two main elements of

discomfort, which add some playfulness to the experience. The first element is *limiting user control*, by removing free text messages (by free we mean the ability to type anything one wants), forcing users to compose messages based on predefined phrases and making it virtually impossible to take the discussion offline. On contrary, mainstream chat apps are generally designed for friends to exchange free text messages and other content, or to support real life encounters (e.g. setting up meetings). This limitation introduces ambiguity and playfulness to the chat experience. The second element is *discomfort through intimacy* by providing users with phrases taken from various dating websites and some containing sexually explicit content (e.g., “when we’re having sex”).

Figures 1-3 show screenshots of the Chachachat app. Figure 1 shows the message creation and conversation screens. Messages have a maximum of three phrases selected from the user vocabulary and have a custom background color. After signing up, the user provides a username, a password and an optional email and fills in a profile as shown in Figure 2. Apart from the entry of the username, password and email, no other interactions allow to input free text and are based on the selection from a predefined list of limited options. Finding other people to chat with is also limited by selecting only specific profile characteristics in order to encourage exchanges between previously unknown users. Figure 2 also shows the randomly assigned phrases a user receives at the end of the signup process that constitute her initial vocabulary. Note that the initial vocabulary gets extended as users receive messages containing new phrases. Thus, the more users chat, the more they can say. Figure 3 shows the gamification features with badges and user statistics.

<sup>1</sup><http://www.cnet.com/news/whatsapp-zaps-record-64-billion-messages-in-one-day/>

<sup>2</sup><http://chachach.at>



**Figure 2:** (1) UI showing the profile creation. (2) UI showing the set of 10 random phrases assigned after profile completion.

## Related work

In recent years, several authors have argued for more research in unorthodox design [3, 11, 10]. Benford et al. [3] present several types of discomforts that can potentially lead to an improved UX, for instance: visceral, cultural, control, and intimacy discomfort. Riche et al. [11] argue that hard to use interfaces can sometimes be beneficial. After discussing computer mediated communication with eight elderly people, they concluded that messages themselves can be considered as a gift and that the value of this gift can be increased by designing systems that make it harder to create them. In [10], the authors argue that nonsense, ignorance and stupidity should not be discarded off the bat as irrelevant, but can sometimes be tools that foster creativity. Along the same lines, including ambiguity in the interaction can also be a valuable addition as it allows people to find their own meaning in uncertain situations [9, 1].

The design principles of Chachachat follow the described approach and include discomfort by limiting user interface control and by exposing user to intimacy by providing them with mature phrases. The limited vocabulary adds playfulness and ambiguity to messaging and Chachachat pushes the gift analogy further since the new phrases are literally added to the list of phrases of the recipient. Moreover, Chachachat aims to encourage participation with a set of badges assigned to users based on their activity (see Figure 3.2). Inserting game-like features in non-games to increase engagement has also become a hot topic, even though the effects are not clear cut [8].

On the mobile app markets there are plenty of mainstream chat apps such as Whatsapp, Line or SnapChat. Snapchat for instance, was one of among the first mainstream chat apps to depart from the notion that chats should be

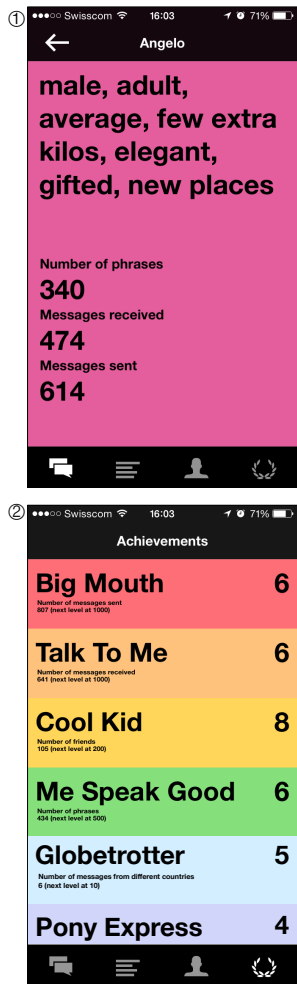
persisted. In Snapchat pictures, movies and chats are sent to friends who can only view them for a few seconds [13]. This feature puts Snapchat in the category of apps that limit user control. Apps such as Yo<sup>3</sup>, where users can just send the word 'Yo' to each other, go even further in limiting control. Despite the popularity of such apps, there is only limited research that focuses on such interaction design. Online dating apps, such as Tinder can also be seen as related work. Online dating has significantly altered the process of dating [7]. For instance instead of meeting someone and then slowly begin to learn things about them, online dating starts off with providing details about someone before meeting face-to-face. Chachachat pushes these interactions to the absurd as it neither allows users to see the appearance of others, nor allows them to meet in real life, the two main ideas in dating apps.

## Case Study

We performed a soft launch of Chachachat on July 21st 2014 by only advertising the app by sharing a link on the authors Facebook profiles. Six months after the soft launch, there were a total of 255 app installations. Out of them 221 users completed registrations (87%), and 81 users had provided their email. Out of the registered users, 170 users sent at least one message (77%). There were a total of 6921 messages sent, where 5837 were regular messages (84%) and 1084 contained explicit phrases (16%). Figure 4.1 shows the number of messages sent per user for the 50 most active users.

We performed two following preliminary case studies with users in the wild. **First**, we have sent out a survey to all users who had provided their email to gather feedback and attitudes towards Chachachat through surveys and open questions. We received 20 responses. Among them,

<sup>3</sup><http://www.justyo.co>



**Figure 3:** (1) UI showing the profile of a user. (2) UI showing the badges obtained by the user.

14 provided demographic data (age 30-42, mean 36 and 7 of 14 were female). **Second**, we used a between-group experimental design for a preliminary comparison with a mainstream messaging application, namely Whatsapp, to measure differences in emotions towards the apps. For that purpose, we conducted a survey using a convenience sample and obtained 29 responses. We used the self-assessment manikin to measure valence and dominance emotions as it is described as *“an inexpensive, easy method for quickly assessing reports of affective response in many contexts”* [4]. Furthermore its pleasure and arousal results *correlate highly with ratings obtained using the verbal, more lengthy semantic differential scale* [4]. The evaluation design has some inherent shortcomings. Since the experiment was done in the wild, it was not possible to brief participants. Furthermore, as we used a convenience sample and the difference in emotions towards the different apps cannot solely be attributed to differences in discomfort design.

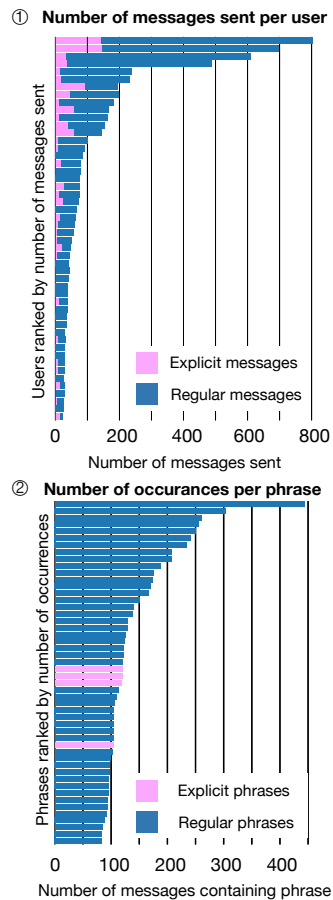
Drawing from [3], we present the UX of Chachachat in a five-act performance (exposition, rising action, climax, falling action, and dénouement), where discomfort is only one part of the experience.

**Exposition** describes the first framing of the experience. Some users were not impressed by the usefulness of the app for instance one user complained: “Why would I want to do that? [compose three phrase haikus with a limited phrase set]” another user commented: “That chat app is all sorts of wtf lol”. Nevertheless another user found that the app’s usefulness was not essential and reported: “useless, therefore essential”. Note that one has to be careful with limiting user control. In the app prototype, users had to go through a 33-step process of selecting username, password and profile characteristics from lists

to create an account, which resulted in 53% of users not completing the process. After a redesign to allow free text entry for the username and the password and the user profile creation was handled in one screen (see Figure 2.1), resulting in a 87% registration completion rate.

**Rising action** describes the anticipation of discomfort as the experience begins. Users signed up for the app and entered their profile, which only around 10% of users say does not match their real profiles. This is consistent with previous findings [12] showing that most users are truthful when filling in their profiles. Users then started to exchange messages and some did not like to communicate with strangers: “I hate interacting with people that I don’t know”. Others were not used to this type of interaction: “Why do I get some message from strangers?? How do they find me?? Is it ok to send them back??”. The app usage data show that 74% of users have communicated with strangers, 63% have written explicit messages and almost half (47%) of all users have written explicit messages to strangers. In Figure 4.2 we show how many times the top 50 phrases were used in messages. Among these phrases 4 contain explicit content.

**Climax** marks the moment when some discomfort occurs. Some users expressed frustration due to anonymity. For instance, one user asked the researchers about the identity of another user with who he had been exchanging messages: “Who is SugarSugar, with the messages she sends me, there is no ambiguity”. Another user was frustrated about the lack of possible follow-up: “How can I hook up? I have exchanged 15 messages with a girl but what happens afterwards? how can I get her number? So I can actually never meet her? That sucks!”. Figure 5.2 shows that only a third of the respondents would like to meet their pen pals in real life. Another user also inquired



**Figure 4:** (1) top 50 most active users by the number of messages sent. (2) top 50 most popular phrases by the number of occurrences in the messages.

about the identity of one of her pen pals, she was scared that he knew who she was. When reassured about the anonymity, she expressed relief: “I hope he is handsome”. Finally, even messaging with friends can become uncomfortable, one user received a WhatsApp message promptly after sending an explicit *Chachachat* message to a friend: “Sounded like you’re getting dirty with me for a second”. A Mann-Whitney test indicated that Chachachat users ( $Mdn = 3$ ) were significantly more aroused ( $U = 416, p_1 = 0.005$ ) than Whatsapp users ( $Mdn = 2$ ).

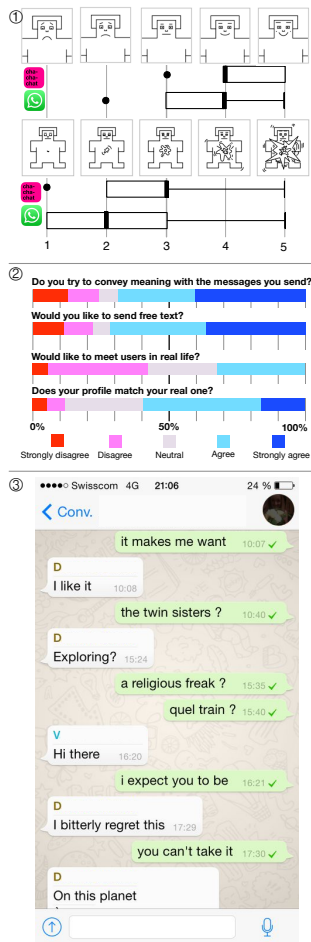
**Falling action** describes the moment after the discomfort which can be associated with a moment of pleasure. For instance several users reported they felt pleasure exchanging explicit messages through *Chachachat*. One user commented: “for people in a relationship, it is nice to be able to write funny or nasty things without being exposed :-)”. Another one said: “it allows you to say things you would never dare to say in real life”. Still, around two thirds of users wanted to send free text. One user was annoyed that she could not write grammatically correct sentences due to the limited vocabulary.

**Dénouement** denotes the reflection opportunity after the experience. Some users reported spending too much time crafting messages: “I liked the design and the fact I can write only with a few phrases, I had to think a lot before sending”. Other reported being addicted to the app. “Chatchatchat is very fun and very addictive when you find a Chatchatcher with whom you get on ;-) Therefore you must regulate yourself.” Finally, a group of users integrated *Chachachat*’s limited vocabulary into their Whatsapp discussion (Figure 5.3). The median pleasure score for both Chachachat and Whatsapp was equal ( $Mdn = 4$ ), nevertheless based on the score distributions a Mann-Whitney test indicated that the pleasure score of

Chachachat was slightly but significantly higher ( $U = 381, p_1 = 0.032$ ) than Whatsapp’s (see to first line on Figure 5.1). Hence, even though the experience included discomfort, it was pleasurable.

## Ethical implications

Even though Chachachat was designed as a playful app, there can be ethical issues associated to introducing discomfort in the user experience [3]. So that users had proper expectations, Chachachat was tagged as containing mild *Mature Themes* upon publication and rated 12+ on the AppStore. Two users reported being uncomfortable with receiving explicit messages from strangers. Especially, they feared that the strangers knew who they were. The fact that Chachachat users can be anonymous is a double edge sword. On one hand, the receiver can be anonymous, which could mitigate the feeling of discomfort. On the other hand, the fact that senders can be anonymous and that many receivers used nicknames known to their friends, increased the feeling of discomfort. To avoid this risk, users could at any time stop using the app. However, this is a dramatic action. In the future, to mitigate the issue, we will consider adding a feature requiring receivers to accept incoming friendship requests before messages can be sent. Furthermore, the choices offered in an app represent certain value systems implicitly or explicitly. For instance, the choice of phrases might lead to undesirable user behaviour as we saw above. Also, one user complained that in the profile choices the *male* option was the first option compared to the *female* and *other* option. App designers should question these structures and take responsibility for the way they might shape participants’ choices and possibly their selves [2]. Finally, one user reported having to force herself to not use the app, since she had a feeling of addiction. The issue with this kind of discomfort is that it is not seen as



**Figure 5:** (1) Self-Assessment Manikin results for Chachachat. (2) survey results. (3) screenshot of a WhatsApp conversation where Chachachat phrases were used.

such by designers, quite the contrary, it is often seen as the result of successful design.

## Conclusion and future work

*Can a messaging app that includes discomfort, nonsense and difficulty of use in its design be enjoyable?* To provide an answer, we designed and evaluated Chachachat, a messaging app that includes discomfort through limited control (limited set of phrases) and intimacy (explicit messages). Our study shows that users feel some discomfort when using Chachachat. Nevertheless, the results also show that users had a very positive attitude towards the app, as shown by the self-assessment manikin results. Furthermore, since Chachachat messages can be harder to create than free text messages, they might have a higher perceived value or can be considered a gift [11]. After trying Chachachat, some users even limited their traditional chat app conversations to only *Chachachat* style phrases, indicating that such elements of discomfort can actually augment the UX (see Figure 5.3). However, designing for discomfort to improve the enjoyment can have ethical implications [3]. Our experiment with unorthodox design has opened up new research possibilities. In particular, we plan to further investigate how UX limitations can improve user experience by turning mundane tasks into potentially fun challenges and how gift-like features can improve interaction.

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