

# Umoji - Your Face Your Emoticon

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**Abstract**—Umoji is a realistic facial expression digital image/icon that can be used to express real facial expressions in order to increase interaction with one another in an entertaining way. This paper introduces the reader with the importance of text messaging using emojis and its popularity. Emoticon and emoji's are smiley's used to express basic human expressions. Second, we discuss to use real life emoticons in text messaging applications and to further secure users password using an Umoji as an authentication system. This paper discusses and illustrate the statistical results gathered from survey in SZABIST Hyderabad campus about what they think about using Umojis while texting and its future prospects in securing users password.

## I. INTRODUCTION

Distance have become shorter after mobile phones about 6,880,000,000+ mobile phones are in use and the population of the world is 7,012,000,000[1]. Text messaging is very common way to stay in touch or share information even to your neighbors, people send text messages even if they want to talk to the person staying next door, all over the world people have sent 8.3 trillion in this year. If we calculate in day it will be 23 billion, and in minutes 16 million messages (Portio Research) [2]. New technologies are coming day by day to make text messages more interesting and interactive. Using emojis also make our conversation more interactive and fun, people are still working to make It better, using emoticons is very common nowadays, but as we all know we cannot describe every expression with emoticon se here is a new idea presented in this research paper UMOJI. it will enable the user to use their expressions in discussion and make it more real and noticeable. With the help of this application user can take your image add it to umojis and use it as emoticon.

## II. WHY USE UMOJI?

A. Emoticons are being used to keep conversations more engaging, Umoji is a different approach, as user will use his

face it will make it more captivating.

B. Umoji can be used as password with user's own images it will be more secure for sensitive information as different people won't be able use user's different expressions used as a password.

C. Using real face instead of symbols make it more astounding than emoticon.

D. User can create more expressions with Umoji which are not possible using emoticons.

E. User can also add multiple things which are not available in emoticons by taking picture of different things and adding to its Umoji lists.

## III. TECHNICAL ISSUES IN UMOJI

When we observe the popular messaging application services such as MSN or Yahoo, they use different emoticons to help user to express different expressions such as sadness, anger, happiness etc.

However, no any emoticon can show exact or natural expressions of people, or the way people express their emotions in daily life through facial expressions.

There are some limitations with the idea of real life emoticons.

A. The user has to make efforts for taking photos for expression as images which will be shown are small user will have to make sure right expressions are being delivered to other person.

B. Some devices have limited graphics usage so it will make it difficult for them to recognize expression.

C. They might only be used in small display areas in the portable devices such as cell phones and PDAs.

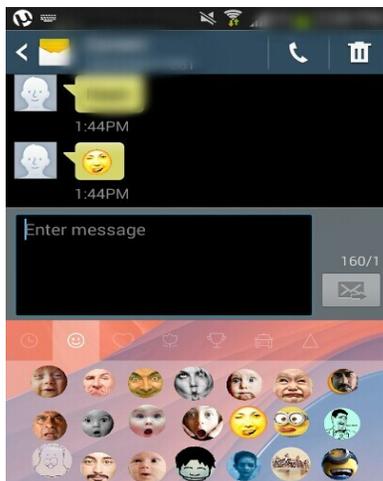
## IV. LITERATURE REVIEW

Recent research indicates that nowadays, the study of emotion has become an important module in the domain of

interaction design. Individuals always have their own ways to express themselves. There could be many different ways to let other people know their emotions. Expressions are limited in different systems such as mobile phones and computers. In China, most people (even the elderly) have start using social network applications instead of text message to connect with families and friends [4]. For text messaging, normally we do not have enough functions to express emotions. There is an instant messenger application called WeChat produced by Tencent company, which is Chinas top social application platform with 71.8% of users, well ahead of other two popular applications called Qzone (53.0%) and Weibo(Microblogs) (39.9%) [4]. Recognizing human expressions itself is very complicated people choose different way to express same emotion in different situations, both emotion detection and recognition are still exacting and research is being conducted to formalize. Facebook using sticker strategy to engage users with its messaging app more frequently the same way umojis (real life emoticons) can be used in the messaging apps to increase the app usage. 2-3 1. The basic facial expressions are widely recognized by the psychologists, which are happiness, sadness, surprise, anger, disgust and fear. For convenience, we consider the natural expression as the seventh. [2] Emoji use is heavily structured by linguistic and social contexts, and by both cultural and personal conventions (Derks, Bos, and Grumbkow, 2007).[3]. Previously work has been done people are using application which allow user to edit their image as emoticon and send it in an picture form, not as an emoticon. Using emoticons as password is more secure it provides more security than letters [5].

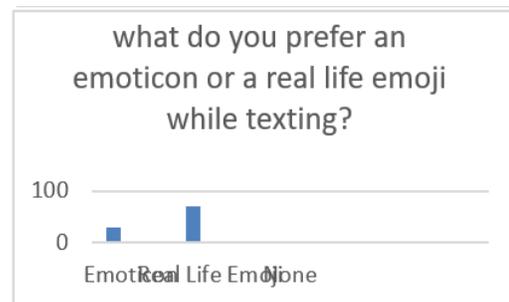
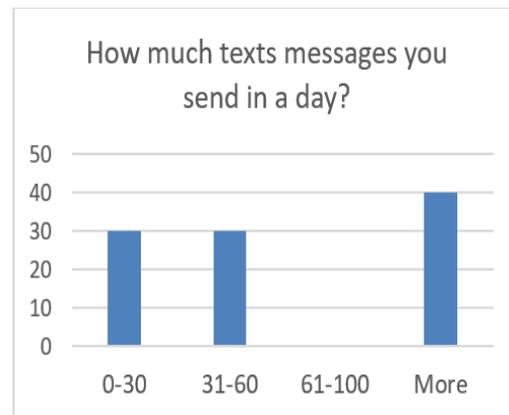
### V. PROTOTYPE

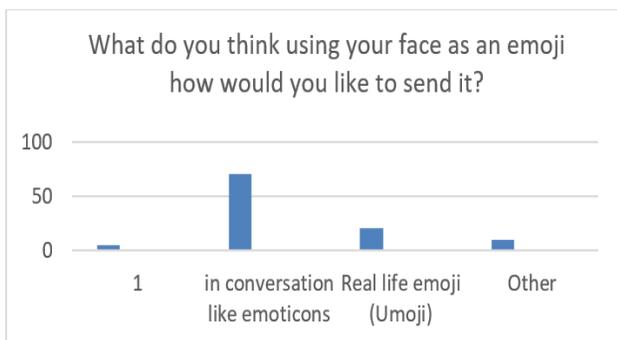
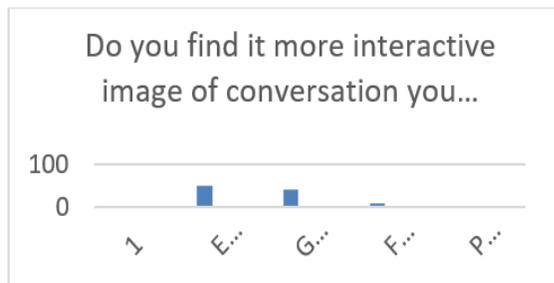
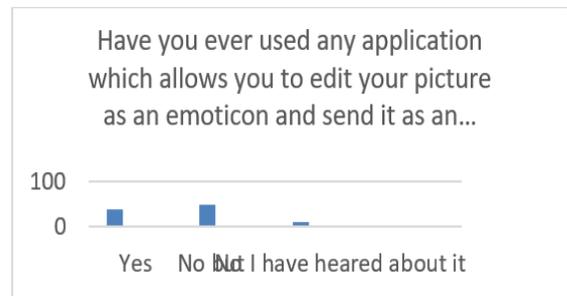
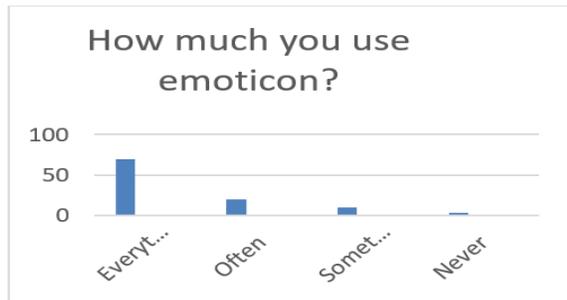
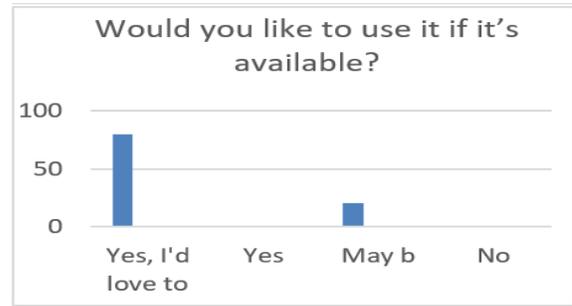
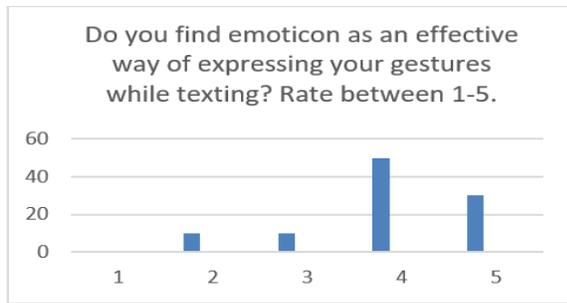
It is a basic prototype made to show, the idea initiated in this paper. It is simple easy to use and similar to usage of emoticons. Here different faces were added to show user how it will look using real faces as emoji's, user can add his multiple photos and delete any if want to, also user can show multiple things as Umoji because in emoticons there are limited ideogram shown.



### VI. RESULTS

Survey has been conduct from 20 students of SZABIST in which they were asked multiple questions about this idea, have they ever heard about it, number of text messages they sent per day, what they think about this idea, also prototype was shown to them they find it more interesting and more interactive as compared to customarily used emoticons, they said it is better approach for sharing expressions.





Students found it very interesting and said it is a different way of expressing gestures, Students were also asked to give assessment or suggestion if they want other than paper, one of the suggestion was to make pictures more funny or giving more effects may make them more attractive, also many students were excited and said they are waiting for such application to use because it give emoticon world a new image, also they said one of the main reason of waiting for such application is it allows you to send anything as an emoticon it dont restrict people to use limited emoticons. After getting results from students , it was found that if more effects will be added to make picture funny and eye catching, users will like it more and can communicate in even better way with Umoji.

## VII. CONCLUSION AND FUTURE WORK

In this paper we discussed usage of text messaging and impact of emoticons on conversation. Further, we saw that why emoticons make conversation more interactive and how UMOJI can be better approach for future. We also share results of questionnaire solved by students of SZABIST Hyderabad Pakistan in which we saw views of students about UMOJI and what they think about it. User authentication system can be accomplished using real life emoticons in writing a more secure password. The future of Umojis in HCI will likely extend growth as more people will be aware of such interactive methods to increase cooperation among society.

## REFERENCES

- [1] "World Population Clocks POPClocks". census.gov. Retrieved 2009-11-10.
- [2] Gigi Peccolo. 45 Texting Statistics That Prove Businesses Need to Take SMS Seriously 10th September 2015. 20th April 2016.
- [3] Xin Li, Chieh-Chih Chang, Shi-Kuo Chang, FaceAliveIcons Seventeenth International Conference on Software Engineering and Knowledge Engineering(SEKE05), Taipei, Taiwan, Jul. 2005.
- [4] Xiao Han Research on Emotion Recognition and the Usage of Emoticons in Social Media.
- [5] Dr. Mohammed A. Fadhil Al-Husainy Raghda Ahmed Malih. USING EMOJI PICTURES TO STRENGTHEN THE IMMUNITY OF PASSWORDS AGAINST ATTACKERS.
- [6] Caroline Kelly. A linguistic study of the understanding of emoticons and emojis in text message.