



## The Impacts of Social and Cultural Factors on User Experience in Mobile Application

**Mohammad Awni Ahmad Mahmoud**

*MIS Department, College of Applied Studies and Community Service, Imam Abdulrahman Bin Faisal University*

---

### **Abstract**

Mobile technologies have improved dramatically over the years which allow users to execute more functions when compared to previous models of mobile devices. Although there has been an increase in the effectiveness of mobile technology, it has come at the cost of usability. A well-designed and optimized user experience is important in a successful mobile application. A poor user experience can certainly contribute to application or product failure. This paper will identify and evaluate the social and cultural factors based on the framework proposed by Leena & Marika and were not evaluated in the comparison of UX frameworks Wei Song that might affect user experience in using mobile applications in an integrated manner. It is expected that by evaluating social and cultural factors by two different methods (interview, observation) of mobile applications will better help in understanding of the user experience. In general, the capturing of user experience is a difficult process because there are so many different factors in user experience interaction.

**Keywords:** user experience evaluation, mobile applications, social factors, cultural factors, user experience factors, human computer interaction.

---

### **I. Introduction**

The effectiveness of mobile technology has improved dramatically over the year which has allowed users to execute more functions than previous mobile devices. Although there has been an increase in the effectiveness of the current mobile technology, it has come at the cost of usability. [6] argued that mobile applications have become more aware of the user patterns which individual users display when operating their device. They also stated that these alter the individual experience of how users interact with these mobile technologies.

[4] claimed that applications are required to take note of the user's desires and preferences during the design stages so that they will be useful. There have been problems when attempting to evaluate how prevalent computing systems and how its influence the individual user because it involves going out into the world to look at real situations in which this is demonstrated. [2] also stated about this problem; there is a requirement of the tools being 100% functional and reliable.

### **II. Materials and Method**

This paper review the previous research work on relationship between user experience (UX) and the impact of social and cultural factors affecting on user.

### **III. User Experience Factors**

User experience forms in the interaction between user and product in a particular context of use in social and cultural environment, but they separate social, culture and context of use into independent components [1].



The interactivity of the product, meaning that cognition dimension of experience enables the product to offer the user a learning experience [5]. A good amount of attributes for each component were listed in [1] work, however, some of these attributes were not recognized in their testing with two mobile application prototypes. This indicates that the attributes affecting user experience are variable in different cases.

Social factors like social acceptability play a major role in building a positive user experience. It is not a simple issue of being acceptable or unacceptable, rather it a continuous decision process that is developed over time. A given action is performed by users, and performance is adjusted according to their experiences. Individual decisions are influenced by members' individual memories, which in turn influence large scale societal changes. Social acceptability of gestures, for example influences and affects user evaluation of actions and visibility. Video prototypes play a main role in the assessment of social factors influencing user experience in mobile applications, as it allows for context specific analysis [9], Social context in essence refers to the expectations users have in the given context, and their willingness to participate in a social situation. Sharing browsing results, undetected browsing, and secure browsing are some social factors that influence user experience to a great extent [10].

#### **IV. User Experience Evaluation Methods**

In this paper, user experience will be evaluated by two different methods. Interview was selected as the method, in case the amount of test users was quite small; this made it possible to observe user during the interview, and gave an opportunity to make the evaluation flexible. Observation was selected for gathering user experience from non-verbal expressions because the user may not be aware of his/her experiences, or be capable to express them verbally. Also, these methods were well suited for the test situation and resources. The interviews and observations have been analyzed from the user experience point of view.

#### **V. Observation Method**

Observing and measuring the world around, including observations of people and other measurable events [7]. Observation is the active acquisition of information from a primary source. In living beings, observation employs the senses. In science, observation can also involve the recording of data via the use of instruments. The term may also refer to any data collected during this activity [7]. Observation was selected for gathering user experience from non-verbal expressions because the user may not be aware of his/her experiences, or be capable to express them verbally. Also, these methods were well suited for the test situation and resources.

#### **VI. Interview Method**

Interview was selected as the method, in case the amount of test users was quite small; this made it possible to observe user during the interview, and gave an opportunity to make the evaluation flexible. One of the major reasons for using interview that the user may play with the product and not concentrate carefully on the interview questions. On the other hand, when the user has got a product in his/her hands he/she is more interested in discussing it and can perhaps express his/her opinions and experiences about the device better, because after familiarization he/she knows the device better [3].



## VII. Discussion

This paper will identify and evaluate the social and cultural factors based on the framework proposed by [8] and were not evaluated in the comparison of UX frameworks [11], It would appear that **Culture**: contain the religion, sex, habits, language; using the mobile application must come up with these factors not violate them. **Social**: contain time pressure and pressure of user interaction which refer to the time availability in using the application and the status of the user while doing function among mobile application would relate to human interaction as well. We hope that this paper works as an in- inspiration for designers to explore more fully the social aspects of fun in their creations see table 1.

Table 1: UX frameworks (Wei Song et al., 2012)

User experience (UX)				
User	product	context	culture	social
<ul style="list-style-type: none"><li>• perception</li><li>• motivation</li></ul>	<ul style="list-style-type: none"><li>• language</li><li>• usefulness</li></ul>	<ul style="list-style-type: none"><li>• time</li><li>• place</li></ul>	<ul style="list-style-type: none"><li>• religion</li><li>• sex</li><li>• habit</li><li>• language</li></ul>	<ul style="list-style-type: none"><li>• time pressure</li><li>• pressure of user interaction</li></ul>

## VIII. Conclusion

this paper is to show the The Impacts of Social and Cultural Factors on User Experience in Mobile Application and how it affect the user experience while he is interacting with mobile application It is expected that by evaluating social and cultural factors by two different methods (interview, observation) of mobile applications will better help in understanding the user experience. In general, the capturing of user experience is difficult because there are so many different factors in user experience interaction

## References

- [1] Arhippainen, L., Tähti, M. 2003." Empirical Evaluation of User Experience in Two Adaptive Mobile Application Prototypes". *Proceedings of 2nd International Conference on Mobile and Ubiquitous Multimedia*. pp. 27-34, Norrköping, Sweden
- [2] Bellotti, F., Berta, R., Degloria, A., Margaroni, M. 2002."User Testing a Hypermedia Tour Guide". *IEEE Pervasive Computing*, 33-41
- [3] Charlotte M. Kirsten Rasmus & Delphine Szymczak .2010. "Methods for understanding the mobile user experience". *Proceedings of the 1st International Workshop. Held in Conjunction with Nordic HI*". October 17.
- [4] Consolvo, S., Arnstein, L., Franza, B. R. 2002. "User Study Techniques in the Design and Evaluation of an Ubicomp Environment", *In the Proceedings of UbiComp 2002*, LNCS 2498, Springer-Verlag, Berlin, 73-90
- [5] Forlizzi, J., & Ford, S. 2000."The Building Blocks of Experience: An Early Framework for Interaction Designer". *Proceedings of Dis 2000*, pp. 419-423, ISBN 1-58113-219-0, Brooklyn, New York, n. d



[6] Kjeldskov, J, & Graham, C .2003.” A review of mobile HCI research methods”. Udine, Italy: In *Proceedings of 5th International Symposium, Mobile HCI*, September, 8–11

[7] Kosso, Peter .2011.” A Summary of Scientific Method”. Springer. p. 9. ISBN 9400716133,

[8] Leena, A &Marika, T. 2003.” Empirical Evaluation of User Experience in Two Adaptive Mobile Application Prototypes”. 2003 ACM 1-58113-826-1/03/12

[9] McCarthy, J., & Wright, P. 2004.” Technology as experience”. MIT Press, Cambridge MA.

[10] Nielsen, J. January 2010.” How Many Test Users in a Usability Study? ”*Nielsen Norman Group*.  
<<http://www.nngroup.com/articles/how-many-test-users/>>

[11] Wei S, Dian McMichael D.2012. “Understanding User Experience of Mobile Video: Framework, Measurement, and Optimization”. 20, January, 2012