Conceptual Model for Knowledge Sharing Model in Creating Idea for Mobile Application

Hanafizan Hussain

Abstract—This study shows that several projects will be conducted at the workshop in which using the conceptual model for knowledge sharing approach to create an idea for mobile application. The sharing idea has been done through the collaborative activity in which a group of different field sought to define the mobile application which will lead to new media approach of using social media platform. The collaborative activity will be provided and implemented in the form of one day workshop to determine the approach towards the theme given. The activity later will be continued for four weeks for the participant to prepare for the pitch day workshop. This paper shows the pitch of idea including the interface and prototype for the said products. The collaboration between the members with different field of study shows that social media influenced the knowledge sharing model and its creation or innovations. One of the projects supported a collaborative activity in which a group of young designers sought to define the knowledge sharing model of their ability in creating idea for mobile applications.

Keywords—Mobile application, collaborative activity, conceptual knowledge sharing model, social media platform.

I. INTRODUCTION

THIS paper will illustrate the conceptual model for knowledge sharing within the experimental method of using collaborative activity to interpret the information based on the theme given in creating the mobile application.

Sharing knowledge always is easier when it has some common fields to discuss but there will be some conflict idea if the members come from different field of study. The model shown in Fig. 1 is used to stimulate the idea and create the implementation of the application. [1] One of the studies that have been done using this model (Fig. 1) is the brain-storming idea for game designers [2]. In this study the concept map is used to personalize and idiosyncratic to communicate the complex ideas within the group members.

In this study the group has been created on the workshop activity whereby most of them did not recognize each other's talents and they will be together for the whole activity for four weeks.

In Fig. 1 the conceptual model has three phases that lead the activity for this paper. Some research [3], [4] show that knowledge models can be used to organize repositories of information based on the process of iterative design or can be in the form of various media types to represent the knowledge model. One of the research done by Ambikapathy showed that concept map is a first step in ontology-building for knowledge

Hanafizan Hussain is with Multimedia University, Cyberjaya, Malaysia (phone +603-83125604, fax +603-83125554, e-mail: hanafizan.hussain@mmu.edu.my).

model and also has been used to represent formal argument in various media types format for sharing knowledge [4].

The issue arises from the fact that the concepts of creating the mobile application need to be explored to increase the level of pitch the idea for the development of the ideation through the different field of study.
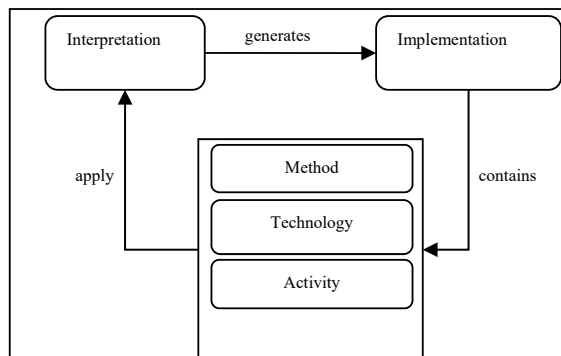

Fig. 1 Conceptual Model for Knowledge Sharing Model

II. KNOWLEDGE SHARING MODEL FOR COLLABORATIVE ACTIVITY

Collaborative activity has been researched in most of the science fields as well as social culture field. One of the studies [5] has shown that the collaboration in the technology group has been one of the trends for smartphone user. Thus, the study explores the trends of end user for smartphone has emerged in the social field as part of the contribution in the entrepreneur social network [6]. In the same path of contributing to the social society the main agenda of this project is to develop the mobile application towards the theme which is democratizing technology for social impact.

At the some point of the research for technology to be collaborated among the mobile user has a different capability in term of the technology usage such as digital media approach [7]. The collaboration studies between the end user and mobile application have been done in the area of mobile technology [5], [8], [9]. The studies have the shown that the digital media and mobile approach for the collaboration technology in the term of reflective process and emphasis the reasons and rational for the development of mobile application.

III. METHOD

There are three phases involved in this project which are divided into four weeks for the participants. The first phase

will be formation of the group with the minimum of two different fields of study involved. The second phase will be the interpretation of the theme given and mobile application that should be inter-related within the group for the implementation. The final phase will be the evaluation of the product via the pitching idea for the last of the week.

All the phases involved will be running on the four weeks session in which the allocation of the time will be relied on the individual within the group member. Thus the collaboration between the members will not be restricted in the classroom only.

IV. IDEA CREATIONS

The best collaboration and ideation happens in a free-form setting with specific goals and a blank canvas to record thoughts on. Thus the participant is not limited towards the platform for their sharing idea platform. Most of them tend to use anything and everything from windows to whiteboards, and pen & paper prototypes to explain and thoroughly understand the vision of the mobile application. As well, they tend to use social media as their communication whenever they needed to pin off the meeting to finish the work. Most of them used it as part of the interaction activity for the group work project.

In the final phase, all ideas are being evaluated via the three optional pathways which are method, technology and activity used in their pitching ideas. All ideas have remarkable movement towards the presentation style of minimum viable product to show off the capacity of contribution idea to further the ideation of the product.

V. PITCH IDEATIONS

A. D-Track

D-Track is the tracking system for queuing process to take the delivery product via national delivery places such national postage system. In this prototype, the usage of QR code will be implemented in the mobile application for the queuing system.

Fig. 2 shows the prototype of the product. It also shows the process of using it for end user. The idea for this concept of queuing system is mainly using the QR code to activate the que for further action. This system can be enhanced with the delivery system which currently uses the number of tracking the goods. This pitch idea has initiated the QR code as the model approach towards the mobile application.

B. QOS

The second prototype is known as QOS (Ques on System) is focusing on the ques system at the public sector such as hospital, immigration department and other departments which have long que to be called up. Some have different segment that involved which the que numbering system.

Fig. 3 shows the mobile application queueing service for the customers. It has the real-time queue status for easier to monitor and track down the status at the time while waiting for the number to be called out. This QOS system has been

initiated towards the physical que system and integrated with the mobile application for better approach in que system.
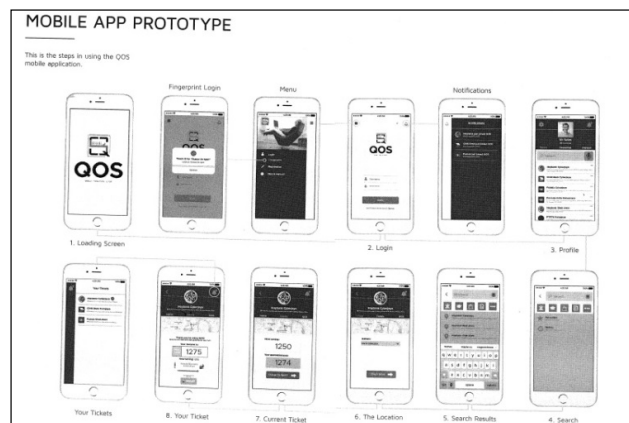

Fig. 2 D- Track

Fig. 3 QOS

C. Tap n Go

The idea for this system started when the members in the same group have to rush out after finishes the workshop for the day. The mobile application here has similarity towards the grab car or other mobile application for the end user to share the vehicle for the same spot or on the way to the said location. The system has been plan for students in campus so they will know the exact time and place after the class over.

Fig. 4 shows the operation of the mobile application named 'Tap n Go'. It has the impact of sharing the vehicle to go to the same location but the different time based on the schedule given. Thus it will help the end user to minimize their travel time and also can view the history of the ride so they can call back the same rider.
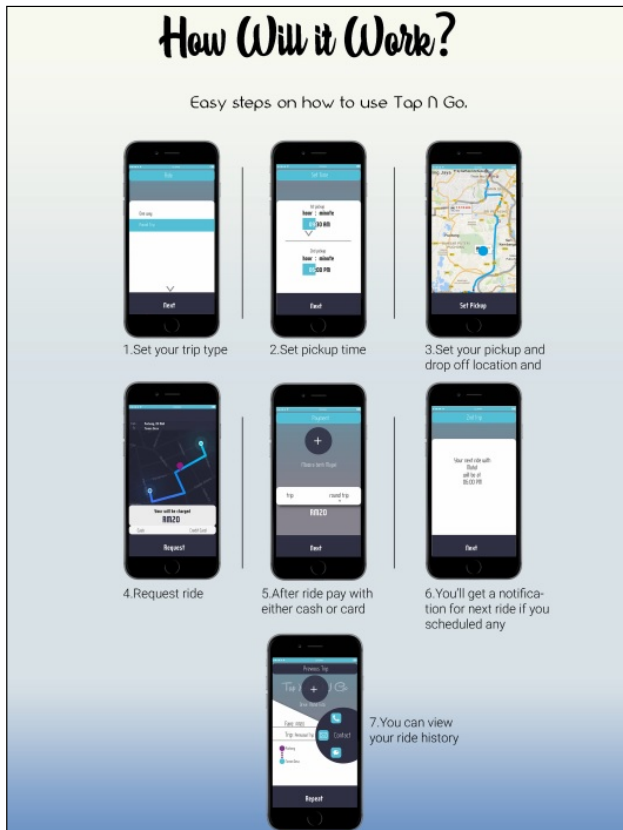
Fig. 4 Tap n Go

D. Netto

The main idea is to have a contact based system where a business card has been the major issue in this mobile application. This mobile application will be used as a sleek and simple way of exchanging and storing business card without hassle of the conventional way.

Fig. 5 shows how the Netto system will be applied. It has the approach of organizing and storing the virtual card which focused on the built–in contacts for mobile phone. Thus it also has the approach of using QR code to share the business card. The main idea is to store the data before uploading it to the database as subsequence in storing the name card in smart phone storage only. It will organize the storage capacity in the mobile storage.

VI. DISCUSSION

Pitch day has made the whole group members work hard to present in form of oral presentation as well as poster session. The development of the prototype for this group within the duration given is proved that the participants can work within the time frame given. Thus the overall idea is good in terms of gathering the different study fields to work together in planning and producing the prototype of the product. In elaboration of the prototype, the 'show and tell' has been organized as part of the 'pitching say' where each group member has the ability to show their skill in the session. For example, there is also the poster session for showing their idea for the implantation of the prototype by Faculty of Creative Multimedia. Meanwhile Faculty of Management has their ability on showing the skill for oral presentation while participants from Faculty of Engineering and Faculty of Computing Information also showed their ability in designing the technology for the product. This also has the impact of sharing their knowledge in different study fields.
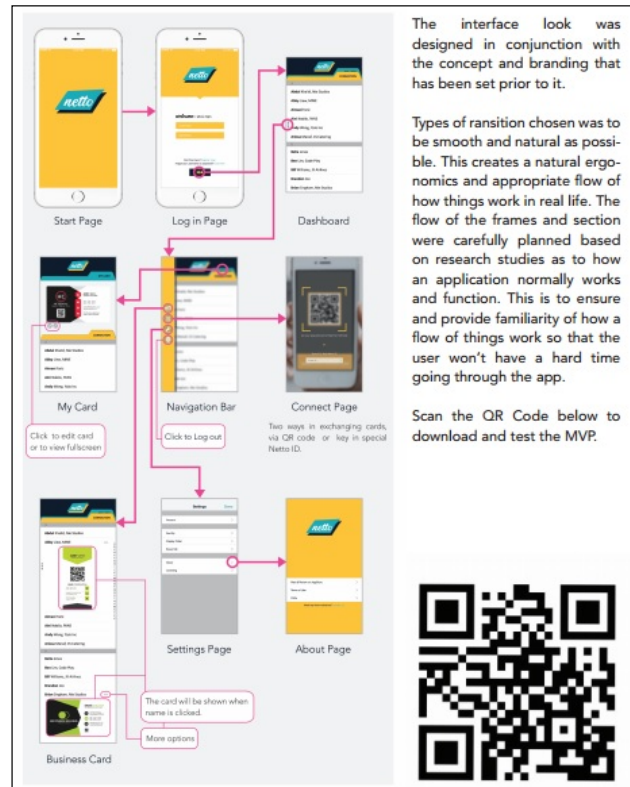

Fig. 5 Netto

VII. CONCLUSION

Knowledge sharing has become more visible in today's social network. Thus, most of the different fields know how and when they needed to share their knowledge within the boundary of the technology. As knowledge has become more and more important in today's society, most mobile application designers apply knowledge to gain and maintain benefit. The purpose of this research is to find the knowledge between the content designers in the development of visualization of the user friendly interface to create idea willingness to share knowledge.

According to results of this research, there are several aspects that needed to be highlighted when the interpretation phase should be discussed in open platform. One of the suggestions is using the visual concept mapping tools such as Concept Map, Coggle It, Lucid Chart and other visual tools that are suitable for the members of the group. This will make the idea more robust and can be full content of the product development.

REFERENCES

[1] H. Hussain and N.R. Shamsuar , "Concept Map in Knowledge Sharing Model", *International Journal of Information and Education Technology*, Vol. 3, No. 3, June 2013. Pages 397-400.

[2] H. Hussain, "An Approach of Concept Map in Creating Idea for Game Designer", In *Proceeding of EDULEARN11 – International Conference on Education and New Learning Technologies.* Barcelona, Spain, 2011, pp 5561-5565.

[3] Zouaghi, I., Tacit Knowledge Generation and Inter Organizational Memory Development in a Supply Chain Context, *Journal of Systemic, Cybernetics, and Informatics,* Vol. 9 (5), Special Issue on Collaborative Enterprise, p. 77 – 85, December 2011.

[4] R. Ambikapathy, "Ontology Based E-Learning System For A University On Semantic Web", *International Journal of Mathematics and Computer Applications Research*. 1(2), 2011. pp 18-27.

[5] H. Detjen, S. Hoftman, G. Bumiller, S, Geisler, M. Jansen and M. Markard. 'Anonymity-Preserving Methods for Client-Side Filtering in Position-Based Collaboration Approaches". *Proceeding of 9th International Conference, CollabTech 2017,* Saskatoon, SK, Canada, August 8–10, 2017, pp1-13.

[6] K. Popplewell, "Towards the Definition of a Science Base for Enterprise Interoperability: A European Perspective", *Journal of Systemics, Cybernetics, and Informatics,* Vol. 9 (5), Special Issue on Collaborative Enterprise, p. 6 – 11, December 2011.

[7] A. Agustina, F. Liu, S. Xia, H. Shen, and C. Sun, "CoMaya:incorporating advanced collaboration capabilities into 3d digital media design tools," *Proceedings of the ACM 2008 conference on Computer supported cooperative work.* New York, NY, USA: 2008, pp 5–8.

[8] D. Lottridge, and W. Mackay, "Generative walkthroughs: to support creative redesign" *Proceeding of the seventh ACM conference on Creativity and cognition*, 2009, pp 2329-2338.

[9] J. Wagner, and W. Mackay, "Exploring sustainable design with reusable paper." *Proceedings of ACM CHI 2010 Conference on Human Factors in Computing Systems,* Atlanta. 2010, pp. 1871-1874.

H. Hussain is a PhD candidate and a lecturer at Multimedia University, Malaysia. She is an academician with more than 15 years of work experience in education industry. She has obtained Master of Science in Computer Science and also Master of Science in Creative Multimedia.