

Applying Facebook as a Management Method for the Teaching Platform to Develop Product Design

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Abstract. This empirical study investigated how to form a club with Facebook (FB) as an assisted instruction platform for design courses to observe the actual performance of a design agendum combining three design projects over three months. The research contents included (1) change of classroom curriculum design by proposing a design procedure for developing a FB-based design discussion platform. (2) Provider a concept for a visualization of dynamically exposed contents by developing a format with horizontal timeline that right-to-left based on the administration process of the three design projects. A feedback distribution map was produced based on two types of information, “Like” clicks and comment frequency, corresponding to the timeline. Lastly, suggestions for enhancing learning motivation by incorporating group activities, demonstrating fun and showing off characteristics were made in the conclusion.

Keywords: online education, design, social network, visualize.

1 Introduction

In product design, we need to consider multicultural characteristics and universal design concepts. After globalization, how to discover the localized value of tourism and cultural characteristics in cultural and creative product development has become a new issue to product designers. To the internet generation in the 21st century, the applications of social networks are thriving. It is an important trend that internet social networks with a prominent function in human communication that was arisen as powerful tools where people exchange knowledge [1; 2; 5]. In addition, it was the resources for the learning, problem solving, and self-improvement. According to Lewin [4], the new term “SoLoMo” appeared at the end of 2011 and originates from the social, local, and the mobile instant messaging experience, allowing us to more dynamically capture the 5w’s (who, what, when, where, and what) of our friends. Lewin [4] described that “the online education company Coursera, its free college courses had drawn a million user, a faster launching than either Facebook(FB) or Twitter. Universities across the United States are increasing their online offerings, hoping to attract students around the world”. This trend was also invokes gigantic marketing and advertising opportunities. As users can now “instantly” share information over mobile networks, instant messaging has become the part of daily life of the majority

university students in Taiwan. Besides a social networking platform for searching friends and communicating via graphics and text, famous social networking website Facebook influences the gustatory, visual, and spatial experiences of users through the instant sharing of gourmet foods, designs, and videos. By uploading different images, users can share their world with friends and relatives. However, if FB has so many advantages, apart from sharing the bits and pieces in daily life, what other functions can it demonstrate in design learning? This study will apply a case study that investigates how to arouse the learning interest of students with the affective sharing of FB.

2 Out of Classroom Curriculum Scheme

When a course asks designers to associate product design with daily life, and the product must be presented the characteristics of a specific environment, event, or urban landscape. Then, designers will need to walk in such an environment to observe the characteristics within it. In practice, designers need to properly combine the environment, scenario, aesthetics, and functions. Did it still need concern during at online social networking? According to the series relevant researches [2, 6] that defines online social networking sites are “free online services that facilitate communication through an interactive network that includes the following: user profiles, photos, groups, email, blogs, surveys, chat room, wikis, social bookmarking, document management, instant messaging music and other media”. Din & Haron [2] findings showed online social networking culture is related to knowledge sharing as a way of life. Cuéllar, et al. [1] suggest a purpose for personalized social network is extracted from the ontology, that a Learning Management Systems(LMS) could be a challenge to make further studies about learners, teachers and learning resources to obtain a better understanding of their social structure, and therefore to make or improve decisions about the learning process. Marques, et al. [5] was defined an investigation on the structure of messages on blogs and microblogs, two different categories of social networks. That “blogs are author-based (also called content-based or push-based) social networks while microblogs are reader-based (also called contact-based or pull-based) social networks. They was categorization of social networks is explained and some characteristics of messages’ structuring messages in blogs were comment, reply and quote. At this moment, the alternative website of most people knows: FB has become an effective platform for designers to instantly share their experiences with friends through photographs and thus this study formed a group of 18 members with FB. In order to expand the space of design learning, we have designed three design projects for this course. Project 1 set an off-campus environment as the target for observers to experience the more real behavior away from the campus or the unmodified natural scenery in that environment. Designers were requested to capture the elements in that environment based on each group in order to design an installation with these elements. Although the characteristics of an environment are an open case, we can share, discuss and analyze the drawings with each member. As an extension of this study of Project 1, Project 2 requested each designer to design a single-function product. Project 3 will ask each designer to design a special product based on the emotions evoked by fairytales, sci-fi or action films. There was some point for the acts of process of communication were noted as below.

Differences between Virtual Group and Classroom Instruction. The aim of this study is to design and establish a brain- storming and creative platform for combing classroom instruction and sharing of the bits and pieces in daily life. With this platform, students can post or share their designs ubiquitously in the virtual space. Also, this platform will act as a reminder, such as the class summary and notes for handing out assignments. The design course in this study included three design projects; Project 1 is the group observation (two students in one group) to reduce the number of discussion groups to eight groups. Projects 2 and 3 will request each student to hand out work. This will facilitate the observation of the difference between group and individual work.

Observation of Graphic Records. Based on the outcomes from the class discussions and the instructor’s notes, we can further share the project concept framework via this platform. Apart from a reminder, this brings more opportunities for brain-storming. In

terms of sketch sharing, designers usually communicate with themselves with sketches but due to reasons of privacy, designers are usually reluctant to disclose their sketches. Also, whether or not the sketches uploaded are the ideal outcomes is an interesting question for designers might have doubts about their sketches and need their friends to approve them (by clicking “Like”). Therefore, the platform is another way to give designers positive reinforcement. The operating process of the FB-based design discussion platform is illustrated as figure 1.

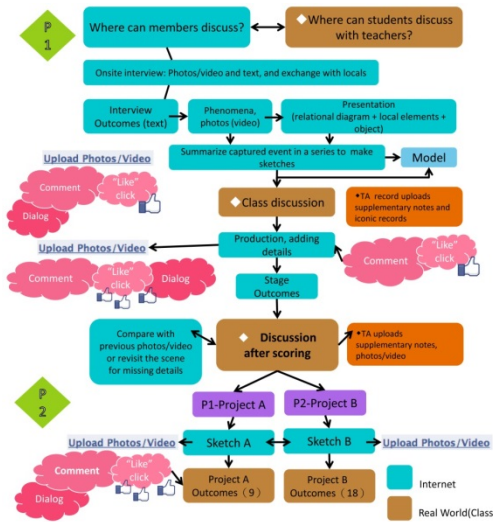


Fig. 1. Operating Process of the FB-Based Design Discussion Platform

Sharing of Personal Thoughts. Uploading student’s concepts, sketches, and photos to the platform for group discussions may be not a perfect solution, but teamwork is always far more effective and efficient than working all alone. For fear of being embarrassed, some choose not to share with others when their work is not as good as that of others. This is not the intention of this study. Feedback (either comments or “like” clicks) is another factor affecting the students’ intention to share. A “like” click suggests approval and positive reinforcement, and comments can be criticisms or suggestions. If there is no feedback to some ideas, students will be unwilling to share their work again. Therefore, deeper considerations are needed before implementation.

3 Visualization of Dynamically Exposed Contents

FB is an important tool demonstrating interpersonal soft power, and the dynamic exposure featuring the EdgeRank is the most interesting element. According to Kabasawa [3], the higher the EdgeRank score, the higher the exposure of a work will be. All stories are called objects, and an edge forms when there are users feeding back to a story (clicking “Like”, commenting, or bookmarking). There are three elements in an edge: affinity score, weight, and time decay factor. After multiplying these three elements and the edge score of the object, the EdgeRank is calculated. Although users are unable to check the score, they can visualize the dynamically exposed contents as the reference for assessment.

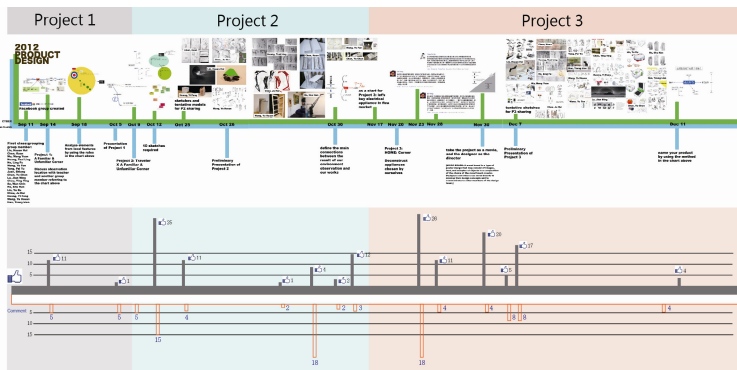


Fig. 2. A format for visualize of Project Club’s Timeline as Feedback Distribution

This study produced a right-to-left horizontal time line (the green bar in Figure 2, a total of three months) corresponding to the process of the three design projects administered over the FB-based design discussion platform. Two types of information corresponding to the timeline are indicated at the bottom, as format for visualize show in Figure 2. The line will be integrating two parallel information with “Like” clicks (grey bar chart, minimum 0 click and maximum 26 clicks) and comment frequency (white bar chart with orange frame, minimum 0 comment and maximum 18 comments). Member response was low in the early stages after the formation of the club, but after sharing some course notes over the platform in the middle of Project 1, the first peak of feedback appeared. From then on, nearly all feedback peaks are associated with course notes sharing. From the review and discussion after Project 1 to Projects 2 and 3, we found that members were getting more familiar with the progress of the class and the club, as witnessed by the escalation of feedback frequency. The intensity also doubled (the peak appeared on Project 2 and P 3 began). These results as bar chart could show the formation of a club by emotional arousal by each month or end of one project. That would offer a visual massage to manage his education topic for leading its group to encourage or discuss and share other information for his members. This also affirms that design requires discussion.

4 Conclusion

The conclusions of the administration of this design issue include:

Enhancing Learning Motivation by Incorporating Group Activities. In terms of grouping members, when there are two students in each group, “group pressure” will be a motor to push members to work harder in order not to burden his/her partner. This is also a way to promote mutual encouragement. If we consider learning as a dynamic line, we can link up the observation and sharing experiences made at different times into a new pathway of the individual’s special memories. By sharing the exploration outcomes of a specific environment on FB, groups can resourcefully update their contents. When someone clicks “Like”, this brings positive reinforcement to the effort that the uploader has put in for this topic. This research also proposed a format that visualize for project club’s timeline and feedback distribution. It would give administer an image to offer some hints more easily.

Demonstrating the Fun and Showing off Characteristics. In terms of design observation, analyzing a selected target may be a standard and boring procedure, and conceptualization may be narrowed due to prior experience. Human beings love fun and learn from fun. If sharing is a fun experience, this will be easier to learn new things. A boring thing becomes interesting when one sees it from a different angle. If we can share our discoveries with other people, observation may become more interesting, and the motivation to explore curiosity will increase. Requesting students to share after recording will increase the expectation of sharing.

Issues Concerning Members in the Virtual Group. Compared the virtual FB club and the physical class, the disadvantages was included that members without a FB account would be unable to participate in discussions. It would also be necessary to consider the privacy of members after joining the FB club and the limitations that the FB club brings. The picture right and right of privacy was other issue necessary to consider by the platform within on-line or internet.

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