User Involvement in Idea Brainstorming of Design Process: Finding the Effective Strategy in Social Network Service

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Abstract. The growth of Social Network Service (SNS) has created a new potential in marketing. The role of SNS has changed the common private and public aspects of life. Many methods have been developed for engaging users in design process. This paper reviews the process of service design development, the area of idea brainstorming innovation though SNS. Specifically, it describes that User Generated Design (UGD) methods for user involvement apply to the development of idea brainstorming and the influence on imagination stimulation. The evolution in design research from a UGD approach to involve users in social innovations is changing the roles of the designer in idea brainstorming process. The results show that the SNS assists the innovation process during the first phases of the new service development process and helps develop innovation ideas. Suggestions for further work are included that include aspects of SNS tangibility, usage areas and UGD innovation.

Keywords: Casual Data, Idea Brainstorming, User Generated Design, Social Network Service, Service Design.

1 Introduction

This study focuses on social network service. In recent years, people are swimming in casual data like never before. The growth of social network service has created a new potential in marketing. Social informatics has taught us that it is important to not only look at technology from the designer's point of view. Technology development is a process in which multiple relevant groups negotiate over its design. Designers have become magicians who grant new life to a product or service.

However, there is a gap between users and designers. Each of these different social groups has a specific interpretation of an artifact and will see and construct quite different objects. Besides appearances and functions of products, user experience has become one of the significant issues that designers and researchers pay attention to. Nowadays, users' demands no longer focus on functional realizations and good usability. A service is always produced in a social and physical setting. More noteworthy is the user experience found in social interaction.

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User experience refers to the user's perceptions and responses in regard to their interaction with a product or service [1]. The concept of user experience has evolved to take into account experiential aspects of user-product interaction, such as emotions, feelings and meanings. User experience is intangible and clearly represents something more than the instrumental and utilitarian aspects of the product. From a Human-Computer Interaction perspective, the obvious response to the demand for user involvement is to utilize HCI methods for user and context identification, user requirements elicitation, design, and evaluation.

Due to the importance of user involvement as part of design development process, there is considerable interest regarding how user can innovate within the idea brainstorming. This article also considers existing co-creation research and describes the development and discuss user group develop innovative new idea though social platform. It focuses on how social groups can innovate services through the use of SNS and contributes new informatics to the field of service innovation.

2   Literature Review

Co-creation and User Generated Design are related concepts. This section discusses the concept of co-creation and its relation to idea brainstorming in social platform.

2.1   Co-creation as an Approach to the Development of User Generated Design

The user experience that is created in social interaction is called "co-experience". Co-experience is crucial for citizens to be involved in the design and implementation of new systems. To bring user into the design process, make them become to part of the development team by co-creation techniques. More noteworthy is the user experience found in social interaction [2]. Comparing with a simply attractive product, creating more chances to interact with family members or friends brings much deeper user experience to users. People like to have joyful user experience when communicating with friends through products or devices. With the exception of interacting with friends or family, providing a better user experience in social interaction will lead to a finer and more valuable life.

People do sharing their life experiences with friends, families, or even strangers. For example, people shared their daily life, impression and comments on Twitter, or on Facebook, or on Blogs. And the social information that we call the casual data, companies also utilize these tools to harvest commentary on Twitter, Facebook, and via customer service interactions connecting to the minds of some of their customers' creative commons more than ever. How to effectively participate in service design from the design perspective has become important to companies and designers [3,4].

2.2   Idea Brainstorming in Social Platform: Social Network Service (SNS)

While users communicate and interact via SNS, the context of their conversation which is refer to as casual data can be used to determine their needs or aspirations. User

involvement in the development of new products may offer a novel approach to improve methods of meeting customer needs. These users are considered to offer possibilities for generating original, valuable, and realizable ideas leading to successful innovation. The main purpose was to examine the benefit of involving users in suggesting new product ideas in an innovation project.

The trend of product and service design is changing rapidly due to the influence of SNS. SNS has a role to affect the success of a developing products or services. The web users are getting accustomed to interacting with their friends via social media. In addition, SNS has become more diverse; for example, users are able to publish latest news or information about themselves to others in the same network through different social media. As a new product or service starts its development cycle, its popularity and rating can be observed by the quality or quantity of posts within SNS. A good product/service usually received positive feedbacks within the posts. The customer-oriented perspective has facilitated a specific kind of design driven innovation. The main and distinctive focus of service design tools concerns the design, description and visualization of the user experience, including the potentials of different social interaction platforms [5,6,7].

3   Context of This Research

3.1   At the Fuzzy Front End of the Service Design Development Process

The fuzzy front end [8] describes the phase at the start of the New Service Development (NSD) process. The NSD process is related to the New Product Development process (NPD), and refers to the specific differences encountered when innovating in services rather than products. The fuzzy front end is followed by the design development process where the resulting ideas for products are developed into concepts, prototypes, and then refined into resulting products or services.

The fuzzy front end phase of projects has come into focus during recent years, being described as the most important part of service innovation by innovation managers. This is because the earliest phases of the development process offer the greatest opportunity for transformational innovation.

The fuzzy front end is increasingly being focused upon by designers as they are given a more explorative and open brief. This phase is also seen as an opportunity to lift design up to a strategic and tactical level of an organization. Such methods are also important when it comes to building links and supporting innovation in the cross-functional teams that are now used in most development projects during new service development. In the front fuzzy end of the collaborative process there are many divergent activities that take place to identify any fundamental problems, to describe opportunities, and to determine potential designs.

To achieve collective creativity, they emphasize the early phases, user involvement in the very early design process to clear design strategy and define ideas for further development. In this stage, the goal of exploration is to discover design problems, identify opportunities and determine an innovation design approach.

3.2   User Involvement in Idea Brainstorming of Design Process

Users and other figures can become part of the design process as expert of their experience, but in order to take on this role they must be given appropriate tools for expressing themselves.

The designers should provide ways for people to engage with each other as well as instruments to communicate, be creative, share insights and envision their own ideas. The co-design activities can support different levels of participation, from situation in which the external figures are involved just in specific moments to situations in which they take part to the entire process, building up the service together with the designers.

User involvement in the development of new products may offer a novel approach to improve methods of meeting customer needs. These users are considered to offer possibilities for generating original, valuable, and realizable ideas leading to successful innovation. The main purpose was to examine the benefit of involving users in suggesting new product ideas in an innovation project.

We consider the structured symbolism and cultural valence of an activity. In any social interaction and software situation there are multiple perspectives at play that warrant attention at Personal, Collective, Community/Groups/Teams, Collaborations, Newbie, Service Owner, External Developer.

4   Application of the Idea Generation Process

User generated design is a widely used method in designing new products or services. In this method, users and producer are involved in the cycle of product design and development, where inputs and feedbacks are shared together. Although this method is highly efficient and cost-effective, it requires an elaborate system design. A common difficulty that is found during its implementation is the lack of understanding of user's aspiration. Even when the system is successfully implemented, the final product or service design still doesn't meet inherent user needs.

SNS utilization in designing a network service to describe the overview of our proposed concept has been discussed in the previous sections. To be precise, we designed an online service flow that enables two-way communication between product/service developer and user. Product/service developer can use this service for publishing their idea while receiving inputs from its user. On the other hand, user can directly contribute to the cycle of product development by expressing and sharing their idea. We used Facebook to publish user's opinion into Facebook page that redirect to our service, in order to make the system known to general public and broaden its scope in Fig1.

User generated design is a design method where a product is designed as a result of user voice and aspiration. In this research, we propose a system where the producer publishes a question regarding product development and users can openly contribute by suggesting opinions or sketches.
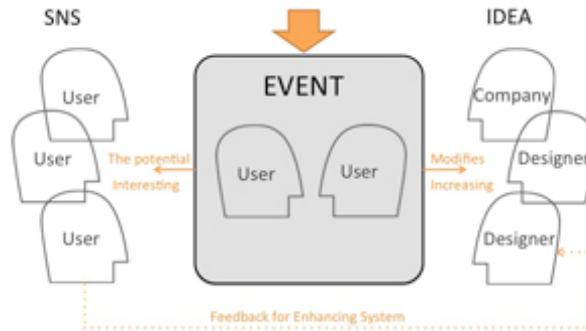
Fig. 1. Feedback Enhancing System Flow

5   Conclusions

There is a gap between users and designers. Each of these different social groups has a specific interpretation of an artifact and will see and construct quite different objects. An experimental user group design was used in order to assess the output in terms of its original, valuable, and realizable merit. The results indicated that ordinary users create significantly more original and valuable ideas. Professional designers created more easily realizable ideas, like product, and ordinary users created the most valuable experiences. The results were discussed from the viewpoint of divergent thinking. It was suggested that divergent thinking was facilitated through the opportunity to combine different information elements that appeared separate at the outset. There is also the social gap between the virtual and reality life. The big problem is that the existing social network groups we're creating online don't match the social networks we already have offline.

While users communicate and interact via social network service, the context of their conversation which is refer to as "Casual Data" can be used to determine their needs or aspirations. Moreover, from a user organization and acquisition perspective, it is contra-productive to single out the software providing a service as the most important entity to design. It is within this context that Service Design operates. Service Design provides an overall design and contextualizes Interaction Design for technology-supported services.

In this paper we have discussed a new method of using Facebook as "Simple Social" in engaging users in design process. In the future works, we will consider how easy these systems can be used as a collaborative platform between product/service developers and consumers. Furthermore, both product/service developers and consumers can receive benefits from SNS service business model. From a Human-Computer Interaction perspective, the obvious response to the demand for user involvement is to utilize HCI methods for user and context identification, user requirements elicitation, design, and evaluation.

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