Research on the Design of University Community Intelligent Mutual Aid Platform

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Abstract:

In the era of mobile Internet, elderly care services need to make use of new social platforms to make their services more accessible and inclusive. In recent years, they have developed rapidly, with continuous expansion of scale and increasingly diversified activities. As a typical representative of the development of new service platform for elderly care activities in the information age, xiaoxiao's innovative thinking and operational mode are of great significance to the research on the innovation and development of the platform for elderly care.From the perspective of the demand hierarchy system, this paper makes systematic analysis and prototype construction based on the platform characteristics, user needs, target users and other major factors, and carries out feasibility analysis.Under the C2M model, the online and offline recreational activities for elderly care will be integrated to meet the needs of different users based on user needs, so as to achieve a win-win situation for all parties on the platform.

1. Introduction

With the development of Internet technology and big data platform, the development of pension service has received more and more attention. Internet technology and big data platform is not only an innovation, but also a potential for the pension service platform, which provides a new way of development for the elderly service platform.

The proportion of the elderly population in the total population is rising, China has entered a "deep aging" society. Today's development is both an opportunity and a challenge. Although user demand model can provide users with better experience, it also has certain complexity. The design of this paper is to innovate the mode of online

social service platform. Only in the context of the Internet, can we integrate the social activities of the elderly and maximize the value of the users.

2. Current Situation Analysis

2.1. Current Situation of User Experience Mode

User experience is a kind of pure subjective feeling established by users in the process of using products. User experience design is a kind of user centered design method, which aims at user needs. Individual differences lead to the fact that each user's real experience can not be completely simulated and reproduced through other ways. But for a well-defined user group, the user experience can be recognized by well-designed experiments. (Baidu's) in the era of experience economy, user experience mode from online to offline activity integration platform, online and offline interworking, has a good application prospect.

2.2. Status Quo of Pension Activity Platform

Search the app store with keywords such as "old age" and "activity", and screen out several competitive products according to the download amount and degree of association: middle aged and elderly life - every time, laolai.com, crutcher.com, activity line, volunteer collection, Cuncaoxin, parental help, and elderly association.

This study focuses on the release function, social function, screening function, life service, business model and other characteristics of competitive products. We screened out five applications that are more relevant to [activity] and [sociality], each time, laolai.com, crutcher.com, activity line, and volunteer collection for further analysis.

In view of the main five competitive products, through the analysis of their product positioning, user analysis, operation strategy, advantages and disadvantages, the paper analyzes the seven dimensions of user stickiness, ease of use, sociality, interest, practicability, personalization and commerciality. Several products have their own advantages and disadvantages in various aspects, but they also do not combine the activities of the elderly with the activities of college students.

Firstly, the interactive form of these competitive products is relatively simple. The simple text narration is far less intuitive and convincing than the words and pictures, and lacks certain interest and entertainment. Secondly, the content level of service and community is not uniform, which can not produce excellent UGC (i.e. user original content). Thirdly, there is basically no fee for activities in China, and the main source of income is on-site service. Fourthly, most of the product concept stagnated, and did not grasp the change of user's positioning of commodity demand. Fifthly, the function coverage is more comprehensive, but most of the main functions are prominent, which does not conform to the habits of deep users.

Therefore, the transformation from "traditional thinking" to "product processing" is needed. This paper focuses on the research and design of user needs and product services, through improving competitive product services, to meet the actual needs of users, constantly improve the service process, enrich user communication activities, and improve user satisfaction.

3. Design Process and Method of Pension Service System

3.1. Design Process

Firstly, research in the early stage of design. To investigate and analyze the senior citizens, school students, pension service institutions, community activity centers, elderly activities app, etc. Through interviews, online questionnaires and other forms to understand the needs of retired people in various stages, the needs of school students for social practice and the current situation of the industry. Secondly, analyze the survey results, carry out conceptual design, determine the function and direction of product refinement, and establish the function priority of pension service platform. Thirdly, the framework and service flow of the system are determined, and the usability test is carried out through the low fidelity prototype and the high fidelity prototype. Fourthly, design finished products. Design app function content, web interface, service process, etc., and make the system planning blueprint. Fifthly, test the service system. Through interviews and other ways to test the service system, and constantly improve the service system according to the needs.

3.2. Design Method

Through a large number of social practice surveys, in-depth study and analysis of the advantages and disadvantages of pension service institutions, community activity centers, social pension activities products, and understand the real pension needs of elderly users through social research and questionnaire survey.

The following are the main steps: firstly, understand the inner needs of elderly users, combine the advantages and disadvantages of pension service institutions, community activity centers, social pension activities products, and find the entry point of new pension service platform. Secondly, understand the characteristics of the elderly group, determine the design objectives, systematically position the pension product services, formulate the business model canvas, and determine the business development plan. Thirdly, the service process of the system should be formulated to meet the different needs of the elderly at different stages, and provide channels to give users the opportunity to customize activities. Fourthly, interface design, and complete the entire app design process.

4. Design of Pension Activity Platform

4.1. User Research

Through questionnaire survey, user interviews and other means of close communication with the elderly, to obtain more real inner thoughts and needs of the elderly for research. In this survey, 6 communities, 20 elderly activity centers, 45 buildings and third-party service institutions were investigated. 152 paper questionnaires for the elderly in community and 387 part-time questionnaires for college students were collected, and in-depth interviews were conducted in community neighborhood committees and elderly people.

The content of the questionnaire includes the personal information and living conditions of the respondents. According to their daily activities, they were consulted about their feelings and evaluation of community activity centers, pension service institutions and pension service products (pension service APP), as well as their expectations for the future pension service platform.

According to the 152 questionnaires collected, this paper analyzes the user's age, psychological status, reasons and evaluation of the elderly care service, the

advantages and disadvantages of the service process, and the expectation of the new pension service platform.

This user survey, based on the questionnaire survey, also conducted user interviews. In this interview, there are two kinds of objects: college students and senior intellectuals. The results of the survey are as follows: first, some elderly people are divorced from the society and lack of spiritual comfort after retirement. They hope to participate in social activities, seek for the object to talk to, and are eager to obtain respect and acceptance, to realize themselves, and to enrich their retirement life. Second, college students are young and energetic, they have different professional knowledge background, overall quality is higher, respect for the elderly, relatives and friends are far away from home, and they have more free time from school community and lack of social experience. They are eager to have more opportunities for social practice. Third, pension institutions are expensive, with few places and single activities, which are difficult to meet the interests of most elderly people.

4.2. Character Modeling

According to the needs of the research, three character models of different ages and different lifestyles are established to analyze and lay the foundation for the subsequent analysis of user experience.

4.3. User Experience Analysis

It mainly analyzes the behavior, emotion, pain point and opportunity point of users in different stages.

According to the user's psychological state of retirement time, the user experience can be divided into five stages: 3-6 months after retirement, return to family life stage, idle stage, pursuit of psychological comfort stage, looking for activity stage. From this, we can find the psychological changes and emotional fluctuations of users in different stages, find the pain points, and carry out targeted design accordingly.

Firstly, the platform provides popular activities in nearby communities, collects information about recent activities and accurately pushes them to users for location selection. Secondly, a process module of activity planning is formed in the background, and users can browse the activities on the "activity details" page. Thirdly, the user signs up for the activity through online appointment, and carries out the data statistics activity expectation in the background. Fourthly, the activity reminder notice is set before the activity, and the activity sign in is carried out at the front desk of the activity site, and the mobile phone GPS is automatically positioned. Fifthly, collect photos during the activity and upload the cloud photo album automatically. Sixth, accumulate activity points after the end of the activity, record the completion of the activity in the background. Seventh, remind users to evaluate the activity, and the activity photos can automatically generate memoirs in the form of various templates, which users can store and share with other platforms.

Therefore, we can refine the characteristic functions for the new pension service platform and make it closer to the needs of users.

Our users have a conversion period. After the demand of the search activity is met, in order to maintain the user stickiness, we provide new function modules for the users who have been converted to the [activity registration] stage, to meet the needs of

the users in the [participation activity stage], optimize the sharing life of the users, and keep the continuous use drive.

Firstly, it enumerates the main functions, and then through the matrix analysis of the four dimensions of demand intensity, desire intensity, market scalability and function innovation, the main functions are prioritized, and the ranking results are used as a reference for the functional level of platform information architecture.

5. Information Architecture

The pension service platform designed in this paper is filial piety pension app. The information framework is divided into four modules: "home page", "discovery", "message", "my".

Users can search for activities in line with their own interests when entering the home page, and can also accept hot push and intelligent push activities. Users can create and publish wish activities in the wish pool of selected pages. Users can find interesting topics in the discovery page, get professional matching recommendation through student matching, chat with college students and get their attention. The discovery page also provides retirement opportunities and experience sharing platform. There are activity reminders and weather tips in the message, which can remind users of dressing index, etc. At the end of the activity, users can view their activity footprints and collected activities in my, and can also give feedback.

5.1. Task Flow and Interaction Prototype

The task flow imitates the user's operation through the low fidelity model, and deduces back and forth from the beginning to the back, continuously improves the platform structure, increases the service function, and improves the user satisfaction.

5.2. Usability Test

According to the definition of ISO 9241-11, usability refers to the effectiveness, efficiency and subjective satisfaction of a product for a specific user in a specific environment.

5.3. Visual Design

Visual design is an important part of product design. The interface color of filial piety pension app is divided into two types: one is the volunteer terminal, the other is the senior citizen terminal.

The whole page of volunteers is blue, fresh and clear. Blue is the safest color and the most popular color. Blue is the coldest color, pure blue shows a beautiful, quiet, rational and quiet. The contrast color of blue is orange. Lower the saturation a little so that they contrast without conflict.

The whole page of Kochi's old people's terminal is orange color, with high color recognition, which conforms to the characteristics of users (low color perception). Orange is a symbol of happiness, especially in Chinese tradition. Orange is the contrast color of green, so lower the saturation to make them contrast without conflict.

6. Blueprint of Pension Activity Platform System

According to the three states before, during and after the activity, the blueprint of the platform system is drawn as follows. Through the research and analysis of each link of the pension activity platform service, each detail is optimized and improved based on user needs. Users can match student services and learn relevant information through interest tags; senior intellectuals can participate in online theme exchange activities to share experience; users can get the opportunity of retirement and reemployment through this platform; users can create wish activities through the wish pool. You can also find your own active photos in the activity footprints and automatically generate memory imprints. Under the mode of user demand, users can get better experience in this platform, which makes the elderly, students and the platform win-win, and enhance user satisfaction

By drawing the service blueprint, the whole activity process and contact points can be analyzed more comprehensively, so as to improve continuously according to the weak points of each link.

7. Conclusions

Pension industry has become a trend. A series of phenomena, such as the increasing elderly population, the complex range of competitive services, the large gap of community activities, and the students' desire for social practice, put forward new requirements for the elderly service platform. This kind of pension service platform design based on user demand mode can provide more rich and perfect service experience for the senior citizens.

Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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