Studying of Community Book Resources Sharing Service Design Based on Social Behavior Organization

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Abstract: This article studies the design of community book resource sharing services, analyzes the nature of social behavior organizations and how to effectively intervene through design methods, analyzes the advantages and disadvantages of existing competitive products, observes the needs of community residents for book resource sharing, and conducts service design research from the perspective of social behavior organizations. Through the "Book · Meeting" - Community Resident Book Resource Sharing Service System, it has been put into practice. We carry on innovation design from reading in idle resources sharing, planning and implementation, online interactive sharing, offline communication experience, build "read + share" community books resources sharing service system based on social behavior, carry on the practice and verification, conclude that studying service mode on social behavior organization is feasible, realize interdisciplinary research and broaden the research field of community development.

Keywords: Social Behavior Organization; Book Resources; Sharing; Service Design; Community Residents

1. Introduction

To apply the concept of service design to sharing and circulation of book resources in a community environment; integrate residents' existing book resources and external resources to meet reading needs of community residents, build a bridge between demand and resources, activate excess capacity and provide reference for the sustainable lifestyle of community residents. Shared reading venue in the community can save people's time to go to and from library or bookstore. For idle old book resources, its sustainable circulation can be realized through sharing, thereby achieving the purpose of recycling. In addition, the paper discusses how to further shorten the distance between community residents through the sharing of community book resources from the perspective of social behavior organization, thereby creating a more harmonious community environment, and further promoting spiritual harmony of community via various community shared reading modes such as scene interaction and idea exchange.

2. Social Behavior Organization

2.1 Concept

"Social", a term as a result of the intersection of sociology and anthropology, means social interaction activities that enable each participant to maintain feelings, enhance cohesion, exchange reciprocally, acquire social capital or seek authority, etc. in a certain social context[1]. Social behavior is a kind of interpersonal communication behavior, which means actions based on the actor's situation as well as value and norms of the situation. It generally refers to a variety of behaviors during interaction between two or more people. Social behaviors are social interaction behaviors necessary for maintaining human relationships, which depend on specific contexts, activities, and intentions, and emphasize the relationship between the individual, the environment, and the society.

Social behavior organization refers to single behavior and series behaviors of a group with common desire in a social context against a goal, usually including task assignment, user assembly, collaborative participation, communication, exchange and other group collaboration[2]. Through effective organization, social intentions, content, tools, objects, activities and other structures are

coordinated and unfolded in a reasonable and orderly manner, thereby promoting sustainable interaction behaviors of social groups and integrating social interaction into a mixed, continuous system.

2.2 Design Effective Interventions in Social Behavior Organization

Regarding how to effectively organize social behaviors through design methods, some scholars propose the concept of social design. Social design refers to interpersonal interaction design that uses social networks as a tool to encourage users to participate, share, communicate, and collaborate[3]. Sociologist McGrath divides behavioral elements in group interaction process into behavioral environment, group structure, and task structure[4]. Social design combines social behavior elements and design process requirements to create a compound design chain that integrates activity design, interpersonal connection and social participation. It forms two-way or multi-directional communication mode through continuous online and offline exchange; creates face-to-face communication and interaction scenarios according to the setting of scenes, status and identity; lets social groups with common aspirations conduct orderly and reasonable exchange and communication for specific activities while emphasizing collaborative participation, thereby establishing effective connections in interpersonal, information, emotional aspects, expanding and maintaining the group's continuous social behavior.

3. Community Resident' Book Resource Sharing Service Needs and Its Experience

Service design is to build a system relationship, which is very different from the point-to-point idea of traditional design. It starts and ends on user needs. All design must proceed from the user's point of view. Only by designing satisfactory and trustworthy services for users can it be possible to maximize service value[5]. With the advent of the Internet era, reading has undergone tremendous changes. E-reading has the potential to replace paper-based reading, but fragmented and assorted e-reading cannot support in-depth reading context; if community residents have a large number of old books idle

at home, repeated purchase of new books exacerbates resource waste. On the other hand, community residents do not have close social relationships, showing indifference and weak sense of belonging. The concern for resource conservation, interpersonal interaction and spiritual satisfaction within the community derives the concept of building a book sharing service system among community residents. By building a community shared reading platform, the existing residents' book resources can be reasonably and effectively circulated so that service objects, service providers, and service operators are jointly placed in the context of book resource sharing service system. In this way, people are encouraged to pay attention to in-depth reading and shorten the distance between community residents, thus achieving the purpose of resource integration.

3.1 Competitor Analysis

There are currently three similar service platforms on the market, namely "22Bat", "Bookway" and "Usharego". "22Bat" is a second-hand book circulation & sharing platform. According to its operating mode, users get book coupons by donating old books to deduct part of the book purchase amount, which is equivalent to accessing book resources on the platform at a low price. The platform has abundant resources, and users enjoy relatively safe channels to buy books, but the sharing model is actually a pseudo-sharing, which is still a profit-oriented operating model. "Bookway" is a one-stop free paper book lending platform based on the concept of "cloud library". Similar to an online library, the platform has quite rich book resources. Users can borrow any book and get it by express delivery, thereby sharing the platform resources without going out. However, the platform has no consideration for old book recycling, and user participation is weak, resulting in a lot of idle resources. "Usharego" is a book resource exchange platform, which adopts the service mode of "online book exchange, offline book pick-up". The book stack has independent cabinet structure. One can synchronously perform operation steps on the book stack touch screen and mobile phone to open the corresponding door, then take out or put in books. One only needs to share private old books to become

eligible for borrowing books, but users cannot enjoy the service without book resources sharing. Such mandatory sharing hinders the platform development. The advantages and disadvantages of the three service platforms are analyzed in Table 1:

Table 1. Competitors Analysis

Competitor	Product Positioning	Business Model	Advantages	Disadvantages
	a second-hand book circulation & sharing platform	users get book coupons by donating old books to deduct part of the book purchase amount	Resources are enough, buy the books safely	operate profit-oriented
	a one-stop free paper book lending platform	"cloud library"	Borrow books without going out	user participation is weak, result in a lot of idle resources.
	a book resource exchange platform	"online book exchange, offline book pick-up"	share private old books easily	mandatory sharing

3.2 Insights into the Needs of Community Residents for Book Resource Sharing Services

Residents in the same community have vastly different lifestyles, cultural backgrounds, and economic incomes, and they have varying needs and preferences for cultural resources. In terms of book resources preferences, some prefer to access professional book resources, while some prefer to read entertainment and leisure books; in terms of possession of book resources, some value long-term possession, mainly collecting books, while some focus on information acquisition, mainly preferring short-term possession; in terms of acquisition of book resources, some hope so without leaving home; some would like to acquire favorite books despite hardness; in terms of absorption and conversion of book knowledge, some focus on personal absorption or literal conversion, while some prefer collective sharing and absorption. Moreover, these habits and preferences change with the shift of context, constituting the key elements that affect user behavior[6].

From the perspective of service design, this paper conducts user research through contextual exploration, shadow follow-up, interviews, participatory experience, role-playing, etc.[7] , analyzes circulation status of books in the community, residents' preference for book resources, attitudes towards possession, and access channel, knowledge transfer, observes and captures various tangible and intangible touch points between people and things, between people and people in the service context, summarizes and concludes the following pain points:

(1) The book access channel is complicated. Borrowing from library, purchase from bookstore, and exchange between friends are the main book circulation modes, which basically require search, movement, interaction and dependence on logistics;

(2) Book purchase cost is high. Affected by factors such as lack of materials, costly knowledge sources, and complex circulation links, the purchase cost of new books, old books and e-books is relatively high;

(3) Utilitarian reading. A great proportion of readers passively acquire knowledge for storage and ability improvement, and very few readers actively improve cognitive and professional ability through reading;

(4) Books have a high degree of idleness. Due to excitation, influence by friends, superficial purposes, and quick knowledge update, there are many idle books in residents' homes;

(5) In-depth reading is insufficient. In-depth reading is often boring, lack of fun, and lack of attractiveness. Fast-food style reading can arouse interest in reading, resulting in a low degree of knowledge acceptance and absorption, which leads to lack of in-depth reading ability in the long run;

(6) There is lack of sharing, communication and interaction. Factors such as insufficient mutual trust among community residents, indifferent interpersonal relationships, and less daily interaction affect the information sharing and transmission, which greatly impairs absorption and conversion of book knowledge. Books are unattractive and expensive, the book acquisition process is too cumbersome, the reading process is boring, and there is lack of motivation for reading behavior. All these lead to low interest in reading.

4. Community Resident' Book Resource Sharing Service Needs and Its Experience

The design oriented to social behavior organization builds a closed-loop service system with the four group interaction factors of participation, interpersonal relation, communication, and activities to simulate social scenarios and guide users to interaction. It conceives the way social behaviors unfold and builds close social connections via information control; sets interpersonal relationships to determine the path of information diffusion and forwarding; organizes social behavior events and designs activities to connect factors such as context, information control technology and interpersonal interaction.

4.1 Service Innovation Point Design

Based on competitor analysis and the insights into community residents' reading needs, scenario analysis is made for user needs to explore touch points and find innovative service points, balance the logical relationship between users, design, and context. Expression is made on three levels of visual form, social behavior and psychological experience to summarize and conclude innovation points in community resident book resource sharing services (Figure 1). Innovative design is made in terms of idle resource sharing, reading plan formulation and implementation, online interactive sharing, and offline communication experience to create a community resident book resource sharing service system that integrates "Pleasant Reading + Sharing" for social behavior organization.

(1) Scenario design-reading plan formulation and regular reading reminder experience. Behavioral motives, behavioral habits, and situational transfer will affect residents' reading process and effects. It often happens that book resources are idle due to various factors. Therefore, a reasonable and effective reading plan is tailored to the user, and the corresponding reminder function is set on the APP to facilitate normal reading progress;

(2) Activity design ——Offline reading sharing session. Activity design can be divided into sharing activities, co-creation activities, collaboration activities, assistance activities, etc. to form group interaction characterized by location sharing, event co-building, and

relationship cohesion[8]. Through the communication feedback platform, it is possible to connect nearby readers with the same interest by holding regular reading exchange meetings to share reading experience of a certain book, thus allowing users to actively organize, design, plan and implement activities, develop reading interest, find like-minded reading partners and strengthen interpersonal communication;

(3) Interpersonal interaction-online interactive sharing. Interpersonal relationship and communication mode are corresponding to each other. That is, the strength of interpersonal relationship and communication mode determine the path and radius of information diffusion and forwarding, as well as the way of feedback loop[9]. When it comes to exciting part, many people like to take reading notes or take pictures to share in time by posting through the established information diffusion path. This innovation point requires the display interface to present rich background information, infectious graphic information and narrative stories;

(4) Participation in design-idle sharing. Participation in design means to design users' participation in social activities in a manner, provide users with social participation and social space attraction that can perceive the people, things, and objects shown in the interactive interface, thereby triggering participation behavior[10]. Users can participate in social activities led by community resident book sharing service system through online and offline participation modes by sharing idle books, borrowing books, and sharing reading experience.
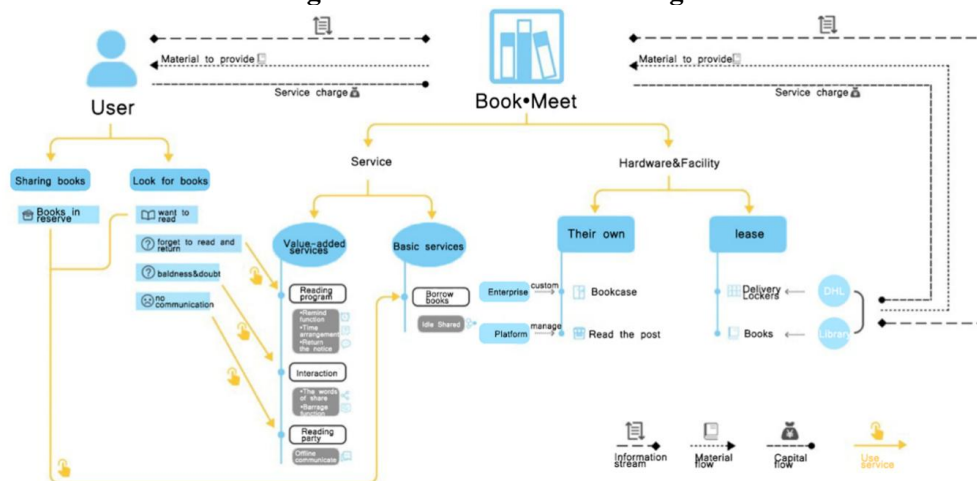
4.2 Service System Design

Based on the four dimensions of high value, low value, urgent and non-urgent, the preliminarily designed innovation points are classified for strong demand and high-frequency service ranges, namely: idle sharing, books borrowing, reading plans, interactive sharing, and offline communication. The "Book•Date" community resident book resource sharing service system is established among stakeholders including community residents, platform operators, logistics, and external book resource supporters (book dealers, non-profit libraries) who participate in sharing and borrowing books. Mainly

innovated from the operation model and service contact, the system is mainly divided into five major contents: understanding, joining, experience, return and feedback, which is a closed-loop system of sustainable development. The value proposition is "building a community shared reading platform to advocate pleasant reading, shorten the distance between community residents and achieve resource integration". The system adopts the operation model of "external material support + platform profit" to achieve books sharing and borrowing online, while reading station and bookcase activities are

organized offline to keep books circulating. The service contacts mainly provide users with value-added services, including reading plans, interactive sharing and book clubs. Users are mainly divided into two groups. Those who borrow books are service recipients, and those who share books are service providers. The four main behavioral parts include customer behavior, front-office staff behavior, back-office staff behavior, and support process. The three dividing lines are respectively interaction dividing line, visual dividing line and internal interaction line. The service system diagram is shown in Figure 2.

Figure 1. Innovative Point Design

Figure 2. Service System

4.3 Tangible Display
4.3.1 Information frame diagram
The first-level page of the information architecture consists of five modules: homepage, order, publishing, message, and mine, and other branches are extended from the first-level page. "Homepage" supports viewing of the latest themed book clubs, old book donation activities, etc. Its two branches

are popular book recommendations and community updates, which are designed to increase reading interest and expand social circles, also the main functions and purposes of the service system. "Order" has three branches, namely lending, borrowing and booking. Book borrowing activities are available through this port which displays all relevant information about the user's lending, borrowing and booking. "Publishing" is

divided into three contents: idle books, community dynamics, and reading notes. Through this port, one can publish and share idle books, community activities, and reading

experience. The "message" port supports viewing of chat history and friends list. One can view personal business cards and APP settings in "Mine". See Figure 3.
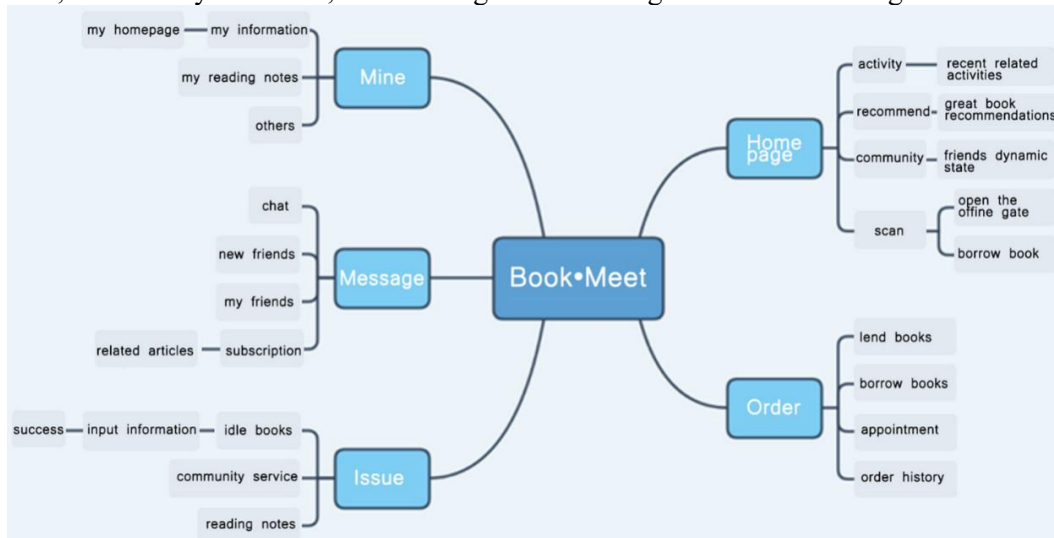

Figure 3. Information Framework

Wireframe can help us accurately split the page, the functional modules and display information of each page, and determine the interface layout of each page element. The high-fidelity design is based on the low-fidelity prototype. The "Book•Date" APP is mainly blue, which echoes the color of the station and the logo. In the popular gradient style, each module adopts a card style to give users a visual enjoyment.

4.3.2 Station design

The station is mainly used for offline communication activities and book circulation to solve the problem of lack of offline communication venues and lack of book transfer stations. The main functions are: (1) Offline communication activities venue. Providing a closed and warm space to organize small activities, it encourages community residents to transit from online to offline; (2) Book transfer station. A station is needed for short-term storage of books borrowed online so that borrowers can take them at convenience. The station has a simple square shape, the overall color is blue, and the three walls are all made of glass curtain walls. In view that the station with small overall area looks dull, the window design can better alleviate the visual oppression, while attracting more bystanders to join the "Pleasant Reading & Sharing" activity. For the privacy design, a remote intelligent door opening method is adopted, and the door can be automatically opened after identity

verification through APP, which effectively prevents irrelevant personnel from entering and leaving the station and encroaching on resources. There are sofas that can accommodate 6-8 people, and two self-service book borrowing machines easy to operate. The blue and white color combination provides users with a comfortable and cozy space for communication and reading. The book stack adopts atomized glass. When the external light is too strong and the brightness is unsuitable for reading, the user can adjust the atomization degree of the window to reduce the indoor light intensity and create an extremely comfortable reading environment. See Figure 4.

Figure 4. Product Display

5. Conclusion

By analyzing the nature of social behavior organization and how to effectively intervene it through design methods, the paper proposes concept of social design; then it analyzes the advantages and disadvantages of existing market competitors, and has insights into community residents' needs for book sharing, establishes innovative design for idle resource sharing, reading plan formulation and implementation, online interactive sharing,

offline communication experience to create a community resident book resource sharing service system that integrates "Pleasant Reading + Sharing" for social behavior organizations. Through "Book•Date" community resident book resource sharing service system, the research is practiced and verified, and it is concluded that the research on the service mode for social behavior organization is feasible. Moreover, the paper studies community development issues using service design methods, converts the research paradigm, and uses design thinking to intervene in social economic and public issues. Combining sociology, economics and other theories, the paper achieves multidisciplinary research and broadens the research fields of community development issues.

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