## The Development and Design of the Supporting Software of the Used Clothing Recycling Box in Communities

## -- Taking the Nanjing Area as an Example

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## Abstract

In reality, the recycling boxes of used clothes in Nanjing communities are not being fully utilized. The project team conducted detailed researches on the recycling boxes of used clothes in Nanjing local communities and the used clothes recycling software on the market, thus providing suggestions on their improvement of design thoughts and management modes of the supporting software for the better usage of the used clothes recycling boxes in Nanjing.

## **Keywords**

The Used Clothes Recycling Software; Resource Utilization; Nanjing; Charity.

# 1. Importance of Supporting Software for Used Clothes Recycling Bins in the Community

In the era of resource recycling and green economy, the community used clothes recycling bins are still the main force in the recycling of used clothes. The coverage rate is high, the collection of used clothes is convenient and fast, the relative maintenance cost is low, and the interests are less involved. Advantages promote the development of the old clothes recycling bins in the community, but the existing problems in the old clothes recycling bins also reflect the design of supporting software to strengthen management to meet related needs.

#### 1. Resident needs

With the improvement of people's living conditions, more and more residents have excess clothing. In the field interview, some residents said that although they have used the old clothes recycling bins in the community, they do not understand the operating system of these old clothes recycling bins. According to the questionnaire survey, most residents are willing to donate idle clothing to charity organizations, and feel that the used clothing recycling public welfare project under the Internet form can promote the development of used clothing recycling.

The superiority of material life has led to more and more spiritual pursuits. More and more people welcome and value charity and environmental protection. As a public welfare method within the reach of most people, donation of used clothes will be subject to wider supervision. The combination with the Internet can facilitate people to intuitively track the whereabouts and use of used clothes recycling.

#### 2. Charity needs

Old clothes recycling bins are the main way for residents to dispose of used clothes. The used clothes recycling bins in each community are responsible and managed by official charitable organizations. They are highly authoritative and can ensure the rational use of recycled used clothes. To a certain extent, people donate old clothes. Enthusiasm for clothing. However, field investigations show that the utilization rate of used clothes recycling bins in the city and the satisfaction of residents cannot achieve the expected results. Existing resources cannot be fully

utilized, which is a waste of charity resources. Using the used clothes recycling bins to the greatest extent can expand the advantages of charity. Nowadays, various official and unofficial public welfare software on the market are mixed. Official charities need an independent path that can attract the public to occupy the charity market, increase the positive influence of charity and guide the correct direction of charity.

#### 3. Times demand

With the emergence of apps such as Alipay and DidiChiu, the threshold for public welfare is getting lower and lower, and the possibility of public participation is getting higher. The development of the Internet has also enriched the forms of public welfare activities, breaking the limitations of time and space, providing a huge development space for public welfare, and conforming to the trend of the times. Through the Internet, the reuse of used clothes recycling bins and the recycling of used clothes have become hot spots. Provides an idea. The combination of physical and electronic can bring convenience to the use of used clothes recycling bins. The combination of charity and the Internet can also simplify the charity steps, increase residents' participation, transparency of used clothes recycling, and meet the era's requirements for environmental protection and resource utilization. look forward to. As the main force of the times, most people are willing to continuously pursue their own social value through public welfare. At the same time, they have a high acceptance of small programs and apps, which provides a basis for the number of users of the used clothes recycling bin software after it is launched.

## 2. Features and Problems of Current Used Clothing Recycling Software

The project team conducted a large amount of data collection and analysis on the used clothes recycling app. The current used clothes recycling app has its own characteristics and advantages, but it is not really closely related to the used clothes recycling box in the community, and it does not match the used clothes recycling box. Supporting app.

1. Large-scale public welfare recycling app: Has a prototype but not enough attention to old clothes

Large-scale charity recycling apps, such as Beluga old clothes recycling app, Flying Ant used clothes recycling app, etc., have a relatively complete overall design, such as used clothes dropoff points under the cable, door-to-door recycling service, and clothing donation points exchange services, but they are recycling At the same time as the old clothes, other waste items such as household appliances and mobile phones are also recycled. The design related to the old clothes recycling is relatively simple. I did not go deep, and only used it as a small part of the software business.

2. Regional used clothes recycling software: the target is single but cannot be fully promoted

Regional recycling software, such as the grid recycling app, etc., the target object of recycling is only clothing, but its recycling scope is limited and regional, and only has a high audience in a specific area, and has not been well promoted as expected, and in different cities and regions The used clothes recycling situation is different, the used clothes recycling bin configuration is different, and the regional characteristics cannot be universal.

3. Second-hand trading software: commercial profit under the face of charity

Part of the recycling software, mixed with the nature of the second-hand market trading platform and recycling software, brings a "utilitarian" color to the public welfare activities, such as inviting friends to participate in the cash back, the recovered items are clearly marked, and the public welfare platform is used to purchase on behalf of the agent. Fuzzy software features, impure philanthropy motives, unfavorable platform supervision, unable to become nonprofit software

Although there are related problems in the existing old-goods recycling apps, their characteristics and advantages provide us with reference to the design and development of the app for the used clothes recycling bins in the community.

# 3. Design Ideas of Supporting Software for Used Clothes Recycling Bins in the Community

Based on the field investigation of the used clothes recycling bins in the current community, the residents' questionnaire survey, the analysis of the current used clothes recycling software and the reading of related design literature, we put forward the following ideas for the design of the matching software for the used clothes recycling bins in the community:

1. Points: build a point exchange platform to cooperate with government poverty alleviation projects

Drawing lessons from the "point exchange system" of the current recycling app, the community used clothing recycling bin app should also actively build a point redemption platform. To ensure the public welfare of the community used clothing recycling bin, we turned our cooperation to the government's poverty alleviation products, that is, help The government implements poverty alleviation policies.

(1) We connect the platform to various poverty-stricken areas that need assistance, and present the corresponding poverty alleviation products on the points platform, marking the relevant information of the products (product features, origin, etc.) and corresponding redemption points. Through the accumulated points, customers can purchase poverty alleviation products at considerable discounts and low prices.

(2) The platform strives to reduce the transaction cost of consumer poverty alleviation, so that poor households are exempt from escort and poverty alleviation products are put on the shelves for free. At the same time, the platform uses the service fee of 1% of the sales amount set by China Poverty Alleviation Network as the standard, and collects service fees from poor households at a level much lower than the average fee of major public welfare platforms.

(3) The platform actively complies with the unified deployment of the Poverty Alleviation Office of the State Council, and collects all the data on the sales of poverty alleviation products to the consumer poverty alleviation platform of China Poverty Alleviation Network in real time, which is convenient for accepting the supervision of the public and actively promoting online public welfare undertakings. Transparency of public welfare.

(4) Through the analysis of the big data of points exchanged for poverty alleviation products, the platform can regularly determine which poverty alleviation products are selling more, selling well, and where the products will be sold. Through the method of "determining production by sales and promoting production by sales", The development of relevant poverty alleviation industries in poverty-stricken areas provides big data support.

(5) While the government provides corresponding policy subsidies for related products, it also promotes poverty alleviation products to more customers. The clothes donors have also achieved "double charity", not only participating in green environmental protection, but also actively supporting poverty alleviation, reflecting the diversity of charity.

2. Ownership: under the banner of the Red Cross, unified management and maintenance

The Red Cross Society is responsible for the operation and maintenance of the used clothing recycling bins in the community, and the operation of the software for the used clothing recycling bins in the community should also be solely responsible for it. Used clothing recycling software should design the Red Cross page to share information about the Red Cross and increase operational capabilities.

(1) With the help of the Red Cross's pivotal position in public welfare undertakings and good social reputation, the design of the recycling bin project can more arouse residents' attention to the resources of the community's used clothing recycling bins, and it can be more clearly distinguished from other markets related to recycling The software guarantees its public welfare.

(2) The Red Cross has extensively carried out long-term cooperation with local governments at all levels, other logistics companies and related non-profit organizations. This is important for the offline operation of the community used clothing recycling bin app (such as logistics distribution, government cooperation, offline The donation process, etc.) have laid a solid material and political foundation.

(3) The Red Cross itself has a relatively complete team of volunteers and managers that can make up for the shortcomings of insufficient online operators and incomplete offline volunteers of the used clothing recycling app in the community. "The way of volunteer management is completely different, which highlights the efficiency of the operation and management of the community used clothing recycling bin app and the social confidence.

(4) The Red Cross has more public welfare information, which can more directly match the used clothing recycling bins to those who need it, simplify the intermediate process and improve transparency.

(5) The Red Cross can issue clothes donation certificates and voluntary certificates online to encourage more residents to join the ranks of donating clothes and increase publicity.

1. Aid: Regional characteristic donation to realize neighboring counterpart assistance

The coverage rate of used clothes recycling bins in the Nanjing community is relatively high, but the destination of the used clothes is unknown. Instead of letting the used clothes in the community flow to other areas, it is better to set aside a part of the area for assistance and shorten the time for cross-region deployment. The used clothes recycling bin supporting software can design a used clothes directional assistance page, and publish the detailed information of the clothes needed by the needy families in the community on the used clothes recycling software. Residents can donate suitable clothes according to the information in the software, shortening the donation Cycle, improve neighborhood relations, reduce the pressure of helping families in difficulties in the community, and release and donate on demand can also reduce resource surplus and reduce the workload of resource classification and transportation in the later period. At the same time, this assistance function also covers disadvantaged groups in the community such as nearby nursing homes, poor students, and migrant workers, so that it is convenient to collect a large amount of clothing needed in the shortest time and at the lowest cost, and realize the best allocation of resources.

2. Volunteer: Recruit community volunteers, manage service and publicize three in one

Nowadays, people's enthusiasm for volunteering is high. Volunteer publishing and selfregistration pages are set up in the community used clothes recycling bin supporting software. The management and maintenance of community used clothes recycling bins and on-site services for online used clothing recycling can be compared with community volunteers. The combination facilitates the management of the old clothes recycling bins in the community, saves related management costs, and can also expand the service team and improve work efficiency. Recruit residents to manage used clothes recycling bins in the community. Volunteer activities are convenient and do not take up too much time. Residents can perform relevant training on the online software and receive volunteer tasks. They can maintain the cabinets, organize clothes, and promote activities when they are free, not only to maintain their homes. The sense of accomplishment can play a publicity role, drive more residents to participate in the management and maintenance of the used clothes recycling bin, expand the volunteer team, reduce the pressure and cost of the management of the used clothes recycling bin, and increase the recycling of used clothes The exposure of the box solves the shortcomings of the used clothes recycling box itself. At the same time, volunteer service hours can also earn relevant points for redemption of poverty alleviation products and relevant volunteer medals, etc., to mobilize residents' enthusiasm for volunteer participation.

## 4. Conclusion

The development and design of the supporting software for the used clothes recycling bin in the community is to meet the needs of the development of the times. The software provides an official and comprehensive platform, which can effectively solve the problems of the used clothes recycling bin itself and make up for the shortcomings of the current used clothes recycling software. The used clothing recycling resources that have been invested are reused to support green environmental protection and public welfare poverty alleviation. At the same time, the triple identities of community residents' help seekers, donors, and volunteers are combined to increase contact and care within the community, and provide close assistance to the old The clothing recycling charity project provides a new perspective and approach.

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